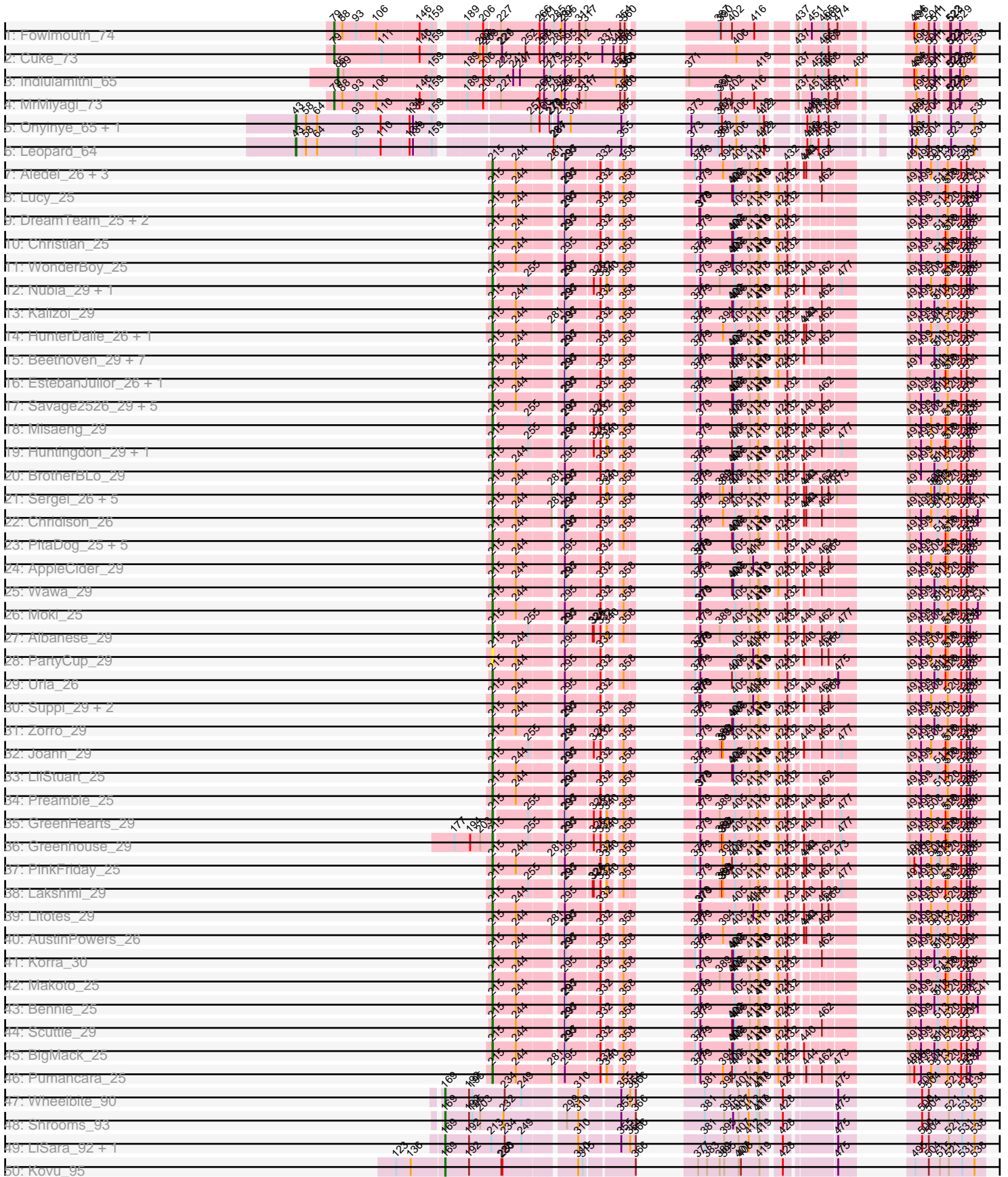
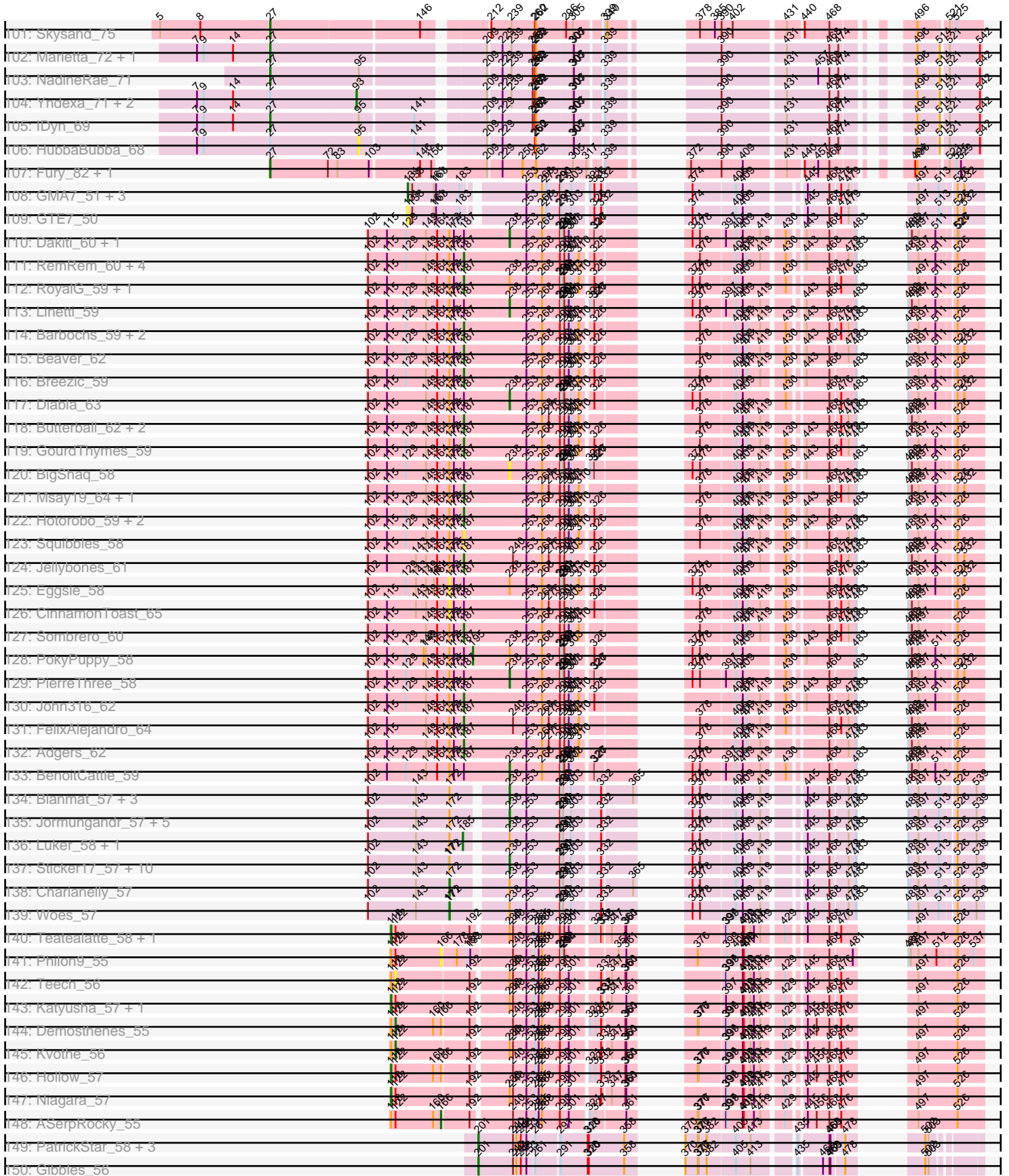


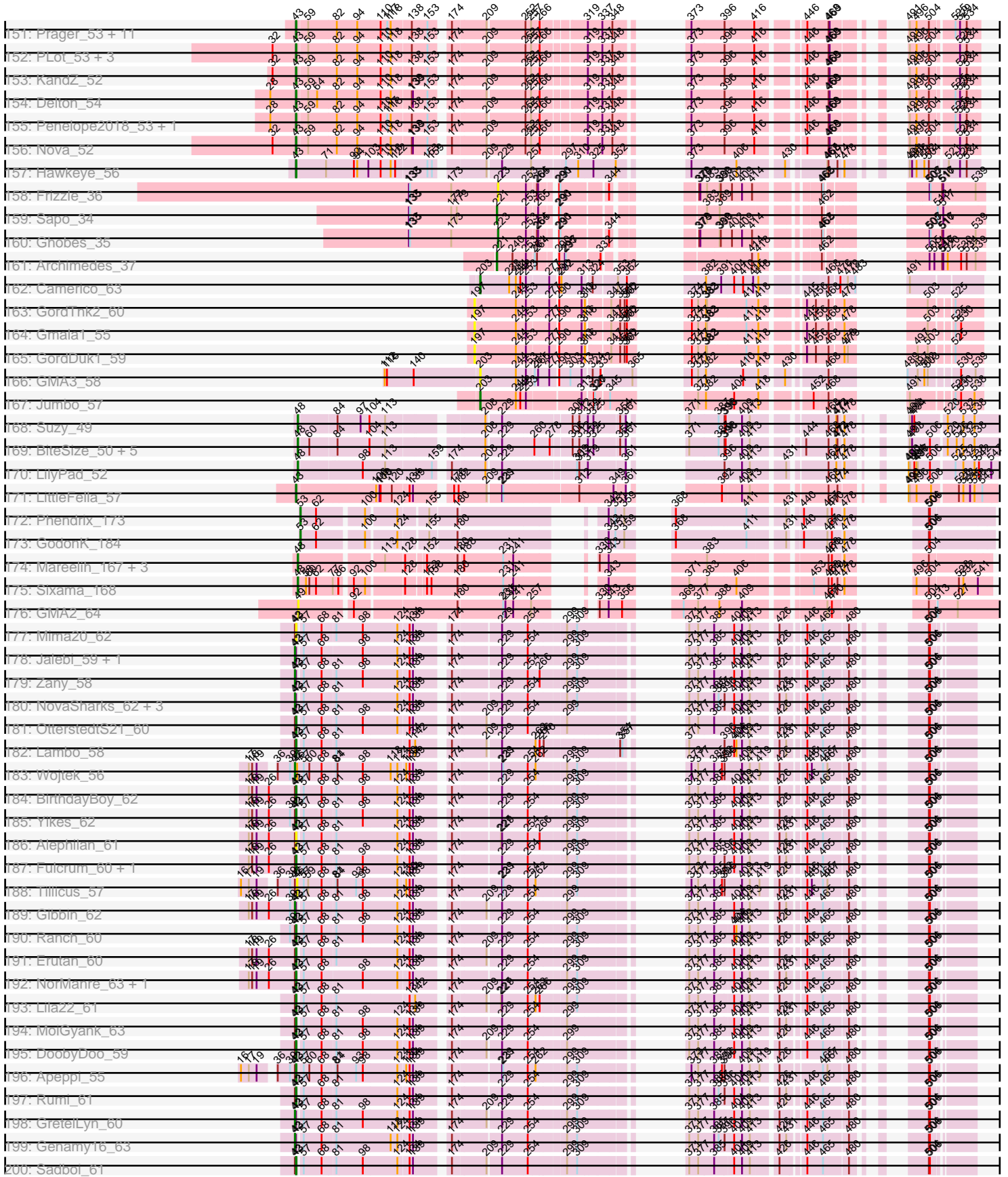
Zoomed Pham 196194



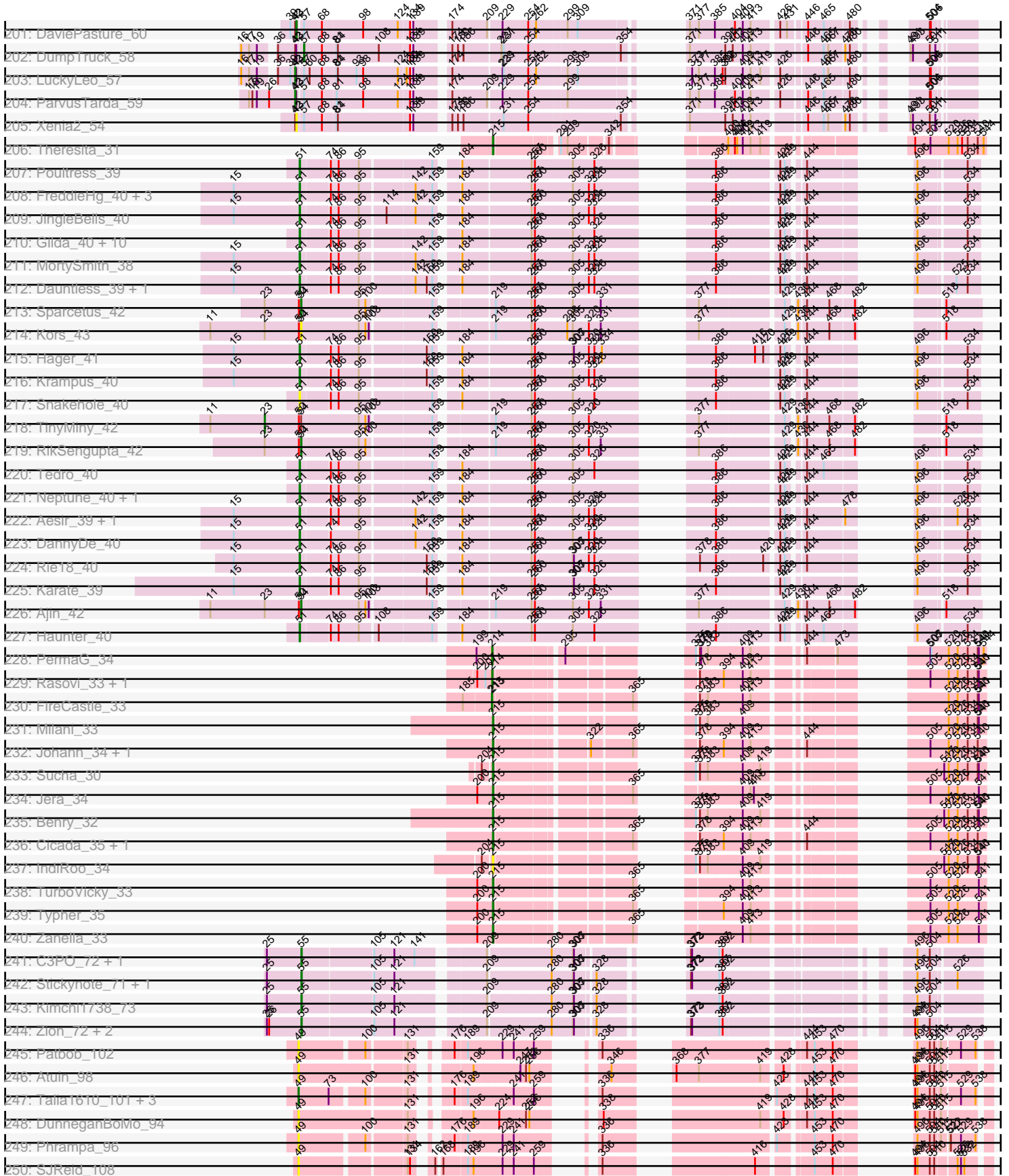
Zoomed Pham 196194



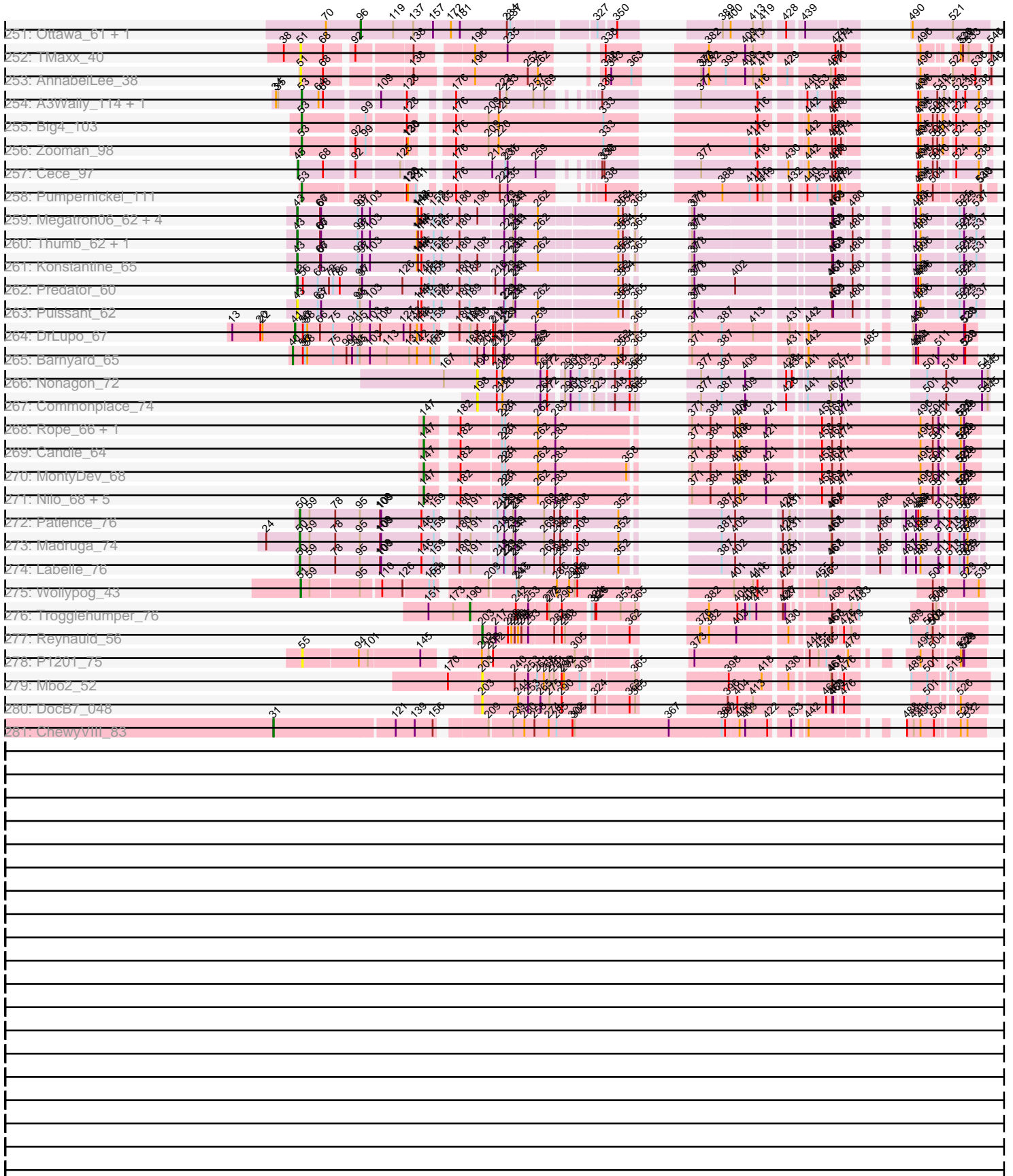
Zoomed Pham 196194



Zoomed Pham 196194



Zoomed Pham 196194



Note: Tracks are now grouped by subcluster and scaled. Switching in subcluster is indicated by changes in track color. Track scale is now set by default to display the region 30 bp upstream of start 1 to 30 bp downstream of the last possible start. If this default region is judged to be packed too tightly with annotated starts, the track will be further scaled to only show that region of the ORF with annotated starts. This action will be indicated by adding "Zoomed" to the title. For starts, yellow indicates the location of called starts comprised solely of Glimmer/GeneMark auto-annotations, green indicates the location of called starts with at least 1 manual gene annotation.

Pham 196194 Report

This analysis was run 12/09/24 on database version 580.

Pham number 196194 has 443 members, 50 are drafts.

Phages represented in each track:

- Track 1 : Fowlmouth_74
- Track 2 : Cuke_73
- Track 3 : Indlulamithi_65
- Track 4 : MrMiyagi_73
- Track 5 : Onyinye_65, Aikoy_65
- Track 6 : Leopard_64
- Track 7 : Aledel_26, Riovina_26, Eunoia_26, OMalley_26
- Track 8 : Lucy_25
- Track 9 : DreamTeam_25, Gisselle_25, Kittykat_25
- Track 10 : Christian_25
- Track 11 : WonderBoy_25
- Track 12 : Nubia_29, Oxyfnrius_29
- Track 13 : Kalizoi_29
- Track 14 : HunterDalle_26, Vulture_26
- Track 15 : Beethoven_29, Vallejo_29, Glenn_29, TattModd_29, Carpal_29, Rozby_29, Fluke_29, Riverdale_29
- Track 16 : EstebanJulior_26, MamaPearl_26
- Track 17 : Savage2526_29, RAP15_29, Cholula_29, MeganNoll_29, Potatoes_29, Jumboset_29
- Track 18 : Misaeng_29
- Track 19 : Huntingdon_29, RcigaStruga_29
- Track 20 : BrotherBLo_29
- Track 21 : Sergei_26, Maria1952_26, Daiboju_26, KingBob_26, Herb_26, Temper16_26
- Track 22 : Chridison_26
- Track 23 : PitaDog_25, CristinaYang_25, ChewChew_25, Nancia_25, DrRobert_25, Bodacious_25
- Track 24 : AppleCider_29
- Track 25 : Wawa_29
- Track 26 : Moki_25
- Track 27 : Albanese_29
- Track 28 : PartyCup_29
- Track 29 : Urla_26
- Track 30 : Suppi_29, Canowicakte_29, Wayne_29
- Track 31 : Zorro_29
- Track 32 : Joann_29
- Track 33 : LilStuart_25

- Track 34 : Preamble_25
- Track 35 : GreenHearts_29
- Track 36 : Greenhouse_29
- Track 37 : PinkFriday_25
- Track 38 : Lakshmi_29
- Track 39 : Litotes_29
- Track 40 : AustinPowers_26
- Track 41 : Korra_30
- Track 42 : Makoto_25
- Track 43 : Bennie_25
- Track 44 : Scuttle_29
- Track 45 : BigMack_25
- Track 46 : Pumancara_25
- Track 47 : Wheelbite_90
- Track 48 : Shrooms_93
- Track 49 : LiSara_92, Salgado_95
- Track 50 : Kovu_95
- Track 51 : Laroye_95
- Track 52 : Waltz_91
- Track 53 : Edmundo_94
- Track 54 : Crosby_42
- Track 55 : UNTPL_44
- Track 56 : Intolerant_41, Bogota_43
- Track 57 : Marky_44
- Track 58 : JackieB_42
- Track 59 : LazerLemon_42
- Track 60 : Araceli_42
- Track 61 : Microdon_41
- Track 62 : Stuff_42
- Track 63 : Henoccus_42
- Track 64 : Wentworth_70
- Track 65 : Yara_66
- Track 66 : Wilkos_72
- Track 67 : Lizz_70
- Track 68 : Rooney_70
- Track 69 : Dryad_74
- Track 70 : PHTown_70, ShakeNBake_70
- Track 71 : Gibson_70
- Track 72 : BRock_117
- Track 73 : Alone3_128
- Track 74 : GiJojo_116
- Track 75 : LuckySocke_124
- Track 76 : Apiary_72, Polyuyuki_72
- Track 77 : Maselop_72, CoffeeBean_72, Braxoaddie_72
- Track 78 : GuyFagieri_70
- Track 79 : MacGully_81
- Track 80 : Flapper_75
- Track 81 : GTE5_60
- Track 82 : Turuncu_75
- Track 83 : GRU1_61
- Track 84 : Dalilpop_75
- Track 85 : Kurt_72, Jifall16_71, KidneyBean_72, Emianna_72
- Track 86 : Outis_73, StarStruck_73

- Track 87 : Kabluna_75, Bonum_76
- Track 88 : GrootJr_74, Tracker_72, Arti_71, NovumRegina_72, Foxboro_72
- Track 89 : NosilaM_73
- Track 90 : Buggaboo_74, SuperSulley_74
- Track 91 : Phomeo_72
- Track 92 : Commandaria_72
- Track 93 : GTE8_60
- Track 94 : NatB6_72
- Track 95 : Wheezy_72
- Track 96 : MerCougar_75
- Track 97 : Float294_74
- Track 98 : Ennea_79
- Track 99 : Lollipop1437_76
- Track 100 : Patio_74
- Track 101 : Skysand_75
- Track 102 : Marietta_72, WhoseManz_71
- Track 103 : NadineRae_71
- Track 104 : Yndexa_71, Sukkupi_71, BiPauneto_74
- Track 105 : IDyn_69
- Track 106 : HubbaBubba_68
- Track 107 : Fury_82, Pleakley_82
- Track 108 : GMA7_51, Amore2_62, Austin_61, HayZem_62
- Track 109 : GTE7_50
- Track 110 : Dakiti_60, Chelms_59
- Track 111 : RemRem_60, Ekhein_59, Exiguo_58, Flakey_58, Sam12_58
- Track 112 : RoyalG_59, SteveFrench_58
- Track 113 : Linetti_59
- Track 114 : Barbochs_59, CathyBurgh_58, Lizzo_59
- Track 115 : Beaver_62
- Track 116 : Breezic_59
- Track 117 : Diabla_63
- Track 118 : Butterball_62, BirksAndSocks_64, Boneham_63
- Track 119 : GourdThymes_59
- Track 120 : BigShaq_58
- Track 121 : Msay19_64, Poland_64
- Track 122 : Hotorobo_59, Monty_58, Gorko_58
- Track 123 : Squibbles_58
- Track 124 : Jellybones_61
- Track 125 : Eggsie_58
- Track 126 : CinnamonToast_65
- Track 127 : Sombrero_60
- Track 128 : PokyPuppy_58
- Track 129 : PierreThree_58
- Track 130 : John316_62
- Track 131 : FelixAlejandro_64
- Track 132 : Adgers_62
- Track 133 : BenoitCattle_59
- Track 134 : Bianmat_57, Shelley_57, Lidong_57, Jams_57
- Track 135 : Jormungandr_57, Guillaume_57, Lahirium_57, Berries_57, Nimi13_57, MrWormie_57
- Track 136 : Luker_58, Kaseim_57
- Track 137 : Sticker17_57, Hail2Pitt_56, Neoevie_57, Damp_57, GalacticEye_57, Teal_57, Minos_58, Newt_58, Anamika_57, Harambe_57, Hello_57

- Track 138 : Charianelly_57
- Track 139 : Woes_57
- Track 140 : Teatealatte_58, Tredge_57
- Track 141 : Philon9_55
- Track 142 : Teech_56
- Track 143 : Katyusha_57, Benczkowski14_57
- Track 144 : Demosthenes_55
- Track 145 : Kvothe_56
- Track 146 : Hollow_57
- Track 147 : Niagara_57
- Track 148 : ASerpRocky_55
- Track 149 : PatrickStar_58, Orchid_57, Kampe_58, RobinSparkles_61
- Track 150 : Gibbles_56
- Track 151 : Prager_53, Giuseppe_53, Butterscotch_52, Chill_55, PBI1_50, WaldoWhy_55, Adjutor_52, Visconti_54, Troll4_53, BigMama_51, Thoth_53, Mopey_54
- Track 152 : PLOT_53, SirHarley_54, Erk16_52, Gumball_52
- Track 153 : KandZ_52
- Track 154 : Delton_54
- Track 155 : Penelope2018_53, Helpful_56
- Track 156 : Nova_52
- Track 157 : Hawkeye_56
- Track 158 : Frizzle_36
- Track 159 : Sapo_34
- Track 160 : Ghobes_35
- Track 161 : Archimedes_37
- Track 162 : Camerico_63
- Track 163 : GordTnk2_60
- Track 164 : Gmala1_55
- Track 165 : GordDuk1_59
- Track 166 : GMA3_58
- Track 167 : Jumbo_57
- Track 168 : Suzy_49
- Track 169 : BiteSize_50, Terapin_51, Sienna_50, Madi_50, Beyoncage_50, Djokovic_50
- Track 170 : LilyPad_52
- Track 171 : LittleFella_57
- Track 172 : Phendrix_173
- Track 173 : GodonK_184
- Track 174 : Mareelih_167, BlueNGold_166, Forza_170, Boopy_169
- Track 175 : Sixama_168
- Track 176 : GMA2_64
- Track 177 : Mima20_62
- Track 178 : Jalebi_59, Sampudon_60
- Track 179 : Zany_58
- Track 180 : NovaSharks_62, Alyssamiracle_63, Avian_60, Jamemuya19_61
- Track 181 : OtterstedtS21_60
- Track 182 : Lambo_58
- Track 183 : Wojtek_56
- Track 184 : BirthdayBoy_62
- Track 185 : Yikes_62
- Track 186 : Alephilan_61
- Track 187 : Fulcrum_60, GOATification_60

- Track 188 : Tillicus_57
- Track 189 : Gibbin_62
- Track 190 : Ranch_60
- Track 191 : Erutan_60
- Track 192 : NorManre_63, Patos_63
- Track 193 : Lila22_61
- Track 194 : MoiGyank_63
- Track 195 : DoobyDoo_59
- Track 196 : Apeppi_55
- Track 197 : Rumi_61
- Track 198 : GretelLyn_60
- Track 199 : Genamy16_63
- Track 200 : Sadboi_61
- Track 201 : DaviePasture_60
- Track 202 : DumpTruck_58
- Track 203 : LuckyLeo_57
- Track 204 : ParvusTarda_59
- Track 205 : Xenia2_54
- Track 206 : Theresita_31
- Track 207 : Poultruss_39
- Track 208 : FreddieHg_40, Hiddenleaf_40, Chivey_40, Crestdrop_40
- Track 209 : JingleBells_40
- Track 210 : Gilda_40, Rachella_40, OverHedge_40, Anakin_40, PhunaPhoke_40, AnnaSerena_40, Pharpay_40, CoolCookie_40, Potty_40, NarutoRun_40, Kate_41
- Track 211 : MortySmith_38
- Track 212 : Dauntless_39, Erudite_39
- Track 213 : Sparcetuss_42
- Track 214 : Kors_43
- Track 215 : Hager_41
- Track 216 : Krampus_40
- Track 217 : Snakehole_40
- Track 218 : TinyMiny_42
- Track 219 : RikSengupta_42
- Track 220 : Tedro_40
- Track 221 : Neptune_40, Cybele_40
- Track 222 : Aesir_39, JDawG_39
- Track 223 : DannyDe_40
- Track 224 : Rie18_40
- Track 225 : Karate_39
- Track 226 : Ajin_42
- Track 227 : Haunter_40
- Track 228 : PermaG_34
- Track 229 : Rasovi_33, Htur_33
- Track 230 : FireCastle_33
- Track 231 : Milani_33
- Track 232 : Johann_34, Goodman_34
- Track 233 : Sucha_30
- Track 234 : Jera_34
- Track 235 : Benry_32
- Track 236 : Cicada_35, SBlackberry_33
- Track 237 : IndiRoo_34
- Track 238 : TurboVicky_33
- Track 239 : Typher_35

- Track 240 : Zanella_33
- Track 241 : C3PO_72, Cruella_72
- Track 242 : Stickynote_71, Darwin_73
- Track 243 : Kimchi1738_73
- Track 244 : Zion_72, PeteyPab_71, PotatoChip_72
- Track 245 : Patbob_102
- Track 246 : Atuin_98
- Track 247 : Talia1610_101, Bloom_105, Racecar_102, Mimi_107
- Track 248 : DunneganBoMo_94
- Track 249 : Phrampa_96
- Track 250 : SJReid_108
- Track 251 : Ottawa_61, Kharcho_61
- Track 252 : TMaxx_40
- Track 253 : AnnabelLee_38
- Track 254 : A3Wally_114, PauloDiaboli_114
- Track 255 : Big4_103
- Track 256 : Zooman_98
- Track 257 : Cece_97
- Track 258 : Pumpernickel_111
- Track 259 : Megatron06_62, Damien_61, Beckerton_60, Cborch11_63, Oaker_60
- Track 260 : Thumb_62, Phreeze_60
- Track 261 : Konstantine_65
- Track 262 : Predator_60
- Track 263 : Puissant_62
- Track 264 : DrLupo_67
- Track 265 : Barnyard_65
- Track 266 : Nonagon_72
- Track 267 : Commonplace_74
- Track 268 : Rope_66, Papyrus_66
- Track 269 : Candle_64
- Track 270 : MontyDev_68
- Track 271 : Nilo_68, Riparian_68, Zenon_68, Send513_66, Yelo_65, Weiss13_66
- Track 272 : Patience_76
- Track 273 : Madruga_74
- Track 274 : Labelle_76
- Track 275 : Wolypog_43
- Track 276 : Trogglehumper_76
- Track 277 : Reynauld_56
- Track 278 : P1201_75
- Track 279 : Mbo2_52
- Track 280 : DocB7_048
- Track 281 : ChewyVIII_83

Summary of Final Annotations (See graph section above for start numbers):

The start number called the most often in the published annotations is 215, it was called in 84 of the 393 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Albanese_29, Aledel_26, AppleCider_29, AustinPowers_26, Beethoven_29, Bennie_25, Benry_32, BigMack_25, Bodacious_25, BrotherBLo_29, Canowicakte_29, Carpal_29, ChewChew_25, Cholula_29, Chridison_26, Christian_25, Cicada_35, CristinaYang_25, Daiboju_26, DrRobert_25, DreamTeam_25, EstebanJulior_26, Eunoia_26, Fluke_29, Gisselle_25, Glenn_29, Goodman_34, GreenHearts_29, Greenhouse_29, Herb_26, HunterDalle_26, Huntingdon_29, IndiRoo_34, Jera_34, Joann_29, Johann_34, Jumboset_29, Kalizoi_29, KingBob_26, Kittykat_25, Korra_30, Lakshmi_29, LilStuart_25, Litotes_29, Lucy_25, Makoto_25, MamaPearl_26, Maria1952_26, MeganNoll_29, Milani_33, Misaeng_29, Moki_25, Nancia_25, Nubia_29, OMalley_26, Oxynfrius_29, PartyCup_29, PinkFriday_25, PitaDog_25, Potatoes_29, Preamble_25, Pumancara_25, RAP15_29, RcigaStruga_29, Riovina_26, Riverdale_29, Rozby_29, SBlackberry_33, Savage2526_29, Scuttle_29, Sergei_26, Sucha_30, Suppi_29, TattModd_29, Temper16_26, Theresita_31, TurboVicky_33, Typher_35, Urla_26, Vallejo_29, Vulture_26, Wawa_29, Wayne_29, WonderBoy_25, Zanella_33, Zorro_29,

Genes that have the "Most Annotated" start but do not call it:

- FireCastle_33,

Genes that do not have the "Most Annotated" start:

- A3Wally_114, ASerpRocky_55, Adgers_62, Adjutor_52, Aesir_39, Aikoy_65, Ajin_42, Alephilan_61, Alone3_128, Alyssamiracle_63, Amore2_62, Anakin_40, Anamika_57, AnnaSerena_40, AnnabelLee_38, Apeppi_55, Apiary_72, Araceli_42, Archimedes_37, Arti_71, Atuin_98, Austin_61, Avian_60, BRock_117, Barbochs_59, Barnyard_65, Beaver_62, Beckerton_60, Benczkowski14_57, BenoitCattle_59, Berries_57, Beyoncage_50, BiPauneto_74, Bianmat_57, Big4_103, BigMama_51, BigShaq_58, BirksAndSocks_64, BirthdayBoy_62, BiteSize_50, Bloom_105, BlueNGold_166, Bogota_43, Boneham_63, Bonum_76, Boopy_169, Braxoaddie_72, Breezic_59, Buggaboo_74, Butterball_62, Butterscotch_52, C3PO_72, Camerico_63, Candle_64, CathyBurgh_58, Cborch11_63, Cece_97, Charianelly_57, Chelms_59, ChewyVIII_83, Chill_55, Chivey_40, CinnamonToast_65, CoffeeBean_72, Commandaria_72, Commonplace_74, CoolCookie_40, Crestdrop_40, Crosby_42, Cruella_72, Cuke_73, Cybele_40, Dakiti_60, Dalilpop_75, Damien_61, Damp_57, DannyDe_40, Darwin_73, Dauntless_39, DaviePasture_60, Delton_54, Demosthenes_55, Diabla_63, Djokovic_50, DocB7_048, DoobyDoo_59, DrLupo_67, Dryad_74, DumpTruck_58, DunneganBoMo_94, Edmundo_94, Eggsie_58, Ekhein_59, Emianna_72, Ennea_79, Erk16_52, Erudite_39, Erutan_60, Exiguo_58, FelixAlejandro_64, Flakey_58, Flapper_75, Float294_74, Forza_170, Fowlmouth_74, Foxboro_72, FreddieHg_40, Frizzle_36, Fulcrum_60, Fury_82, GMA2_64, GMA3_58, GMA7_51, GOATification_60, GRU1_61, GTE5_60, GTE7_50, GTE8_60, GalacticEye_57, Genamy16_63, Ghobes_35, GiJojo_116, Gibbin_62, Gibbles_56, Gibson_70, Gilda_40, Giuseppe_53, Gmala1_55, GodonK_184, GordDuk1_59, GordTnk2_60, Gorko_58, GourdThymes_59, Gretellyn_60, GrootJr_74, Guillaume_57, Gumball_52, GuyFagieri_70, Hager_41, Hail2Pitt_56, Harambe_57, Haunter_40, Hawkeye_56, HayZem_62, Hello_57, Helpful_56, Henoccus_42, Hiddenleaf_40, Hollow_57, Hotorobo_59, Htur_33, HubbaBubba_68, IDyn_69, Indlulamithi_65, Intolerant_41, JDawG_39, JackieB_42, Jalebi_59, Jamemuya19_61, Jams_57, Jellybones_61, Jifall16_71, JingleBells_40, John316_62, Jormungandr_57, Jumbo_57, Kabluna_75, Kampe_58, KandZ_52, Karate_39, Kaseim_57, Kate_41, Katyusha_57, Kharcho_61, KidneyBean_72, Kimchi1738_73, Konstantine_65, Kors_43, Kovu_95, Krampus_40, Kurt_72, Kvothe_56, Labelle_76, Lahirium_57, Lambo_58, Laroye_95, LazerLemon_42, Leopard_64, LiSara_92, Lidong_57,

Lila22_61, LilyPad_52, Linetti_59, LittleFella_57, Lizz_70, Lizzo_59, Lollipop1437_76, LuckyLeo_57, LuckySocke_124, Luker_58, MacGully_81, Madi_50, Madrugua_74, Mareelih_167, Marietta_72, Marky_44, Maselop_72, Mbo2_52, Megatron06_62, MerCougar_75, Microdon_41, Mima20_62, Mimi_107, Minos_58, MoiGyank_63, MontyDev_68, Monty_58, Mopey_54, MortySmith_38, MrMiyagi_73, MrWormie_57, Msay19_64, NadineRae_71, NarutoRun_40, NatB6_72, Neoevie_57, Neptune_40, Newt_58, Niagara_57, Nilo_68, Nimi13_57, Nonagon_72, NorManre_63, NosilaM_73, NovaSharks_62, Nova_52, NovumRegina_72, Oaker_60, Onyinye_65, Orchid_57, Ottawa_61, OtterstedtS21_60, Outis_73, OverHedge_40, P1201_75, PBI1_50, PHTowN_70, PLOT_53, Papyrus_66, ParvusTarda_59, Patbob_102, Patience_76, Patio_74, Patos_63, PatrickStar_58, PauloDiaboli_114, Penelope2018_53, PermaG_34, PeteyPab_71, Pharpay_40, Phendrix_173, Philon9_55, Phomeo_72, Phrampa_96, Phreeze_60, PhunaPhoke_40, PierreThree_58, Pleakley_82, PokyPuppy_58, Poland_64, Polyyuki_72, PotatoChip_72, Potty_40, Poultruss_39, Prager_53, Predator_60, Puissant_62, Pumpnickel_111, Racecar_102, Rachella_40, Ranch_60, Rasovi_33, RemRem_60, Reynauld_56, Rie18_40, RikSengupta_42, Riparian_68, RobinSparkles_61, Rooney_70, Rope_66, RoyalG_59, Rumi_61, SJReid_108, Sadboi_61, Salgado_95, Sam12_58, Sampudon_60, Sapo_34, Send513_66, ShakeNBake_70, Shelley_57, Shrooms_93, Sienna_50, SirHarley_54, Sixama_168, Skysand_75, Snakehole_40, Sombrero_60, Sparcetus_42, Squibbles_58, StarStruck_73, SteveFrench_58, Sticker17_57, Stickynote_71, Stuff_42, Sukkupi_71, SuperSulley_74, Suzy_49, TMaxx_40, Talia1610_101, Teal_57, Teatealatte_58, Tedro_40, Teech_56, Terapin_51, Thoth_53, Thumb_62, Tillicus_57, TinyMiny_42, Tracker_72, Tredge_57, Trogglehumper_76, Troll4_53, Turuncu_75, UNTPL_44, Visconti_54, WaldoWhy_55, Waltz_91, Weiss13_66, Wentworth_70, Wheelbite_90, Wheezy_72, WhoseManz_71, Wilkos_72, Woes_57, Wojtek_56, Wollypog_43, Xenia2_54, Yara_66, Yelo_65, Yikes_62, Yndexa_71, Zany_58, Zenon_68, Zion_72, Zooman_98,

Summary by start number:

Start 23:

- Found in 5 of 443 (1.1%) of genes in pham
- Manual Annotations of this start: 1 of 393
- Called 20.0% of time when present
- Phage (with cluster) where this start called: TinyMiny_42 (EF),

Start 27:

- Found in 42 of 443 (9.5%) of genes in pham
- Manual Annotations of this start: 31 of 393
- Called 76.2% of time when present
- Phage (with cluster) where this start called: Arti_71 (CR2), Bonum_76 (CR2), Buggaboo_74 (CR2), Commandaria_72 (CR2), Dalilpop_75 (CR1), Emianna_72 (CR2), Ennea_79 (CR3), Flapper_75 (CR1), Float294_74 (CR3), Foxboro_72 (CR2), Fury_82 (CR5), GRU1_61 (CR1), GrootJr_74 (CR2), IDyn_69 (CR4), Jifall16_71 (CR2), Kabluna_75 (CR2), KidneyBean_72 (CR2), Kurt_72 (CR2), Lollipop1437_76 (CR3), Marietta_72 (CR4), MerCougar_75 (CR2), NadineRae_71 (CR4), NovumRegina_72 (CR2), Outis_73 (CR2), Patio_74 (CR3), Pleakley_82 (CR5), Skysand_75 (CR3), StarStruck_73 (CR2), SuperSulley_74 (CR2), Tracker_72 (CR2), Turuncu_75 (CR1), WhoseManz_71 (CR4),

Start 29:

- Found in 6 of 443 (1.4%) of genes in pham
- Manual Annotations of this start: 6 of 393
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Apiary_72 (CR), Braxoaddie_72 (CR), CoffeeBean_72 (CR), GuyFagieri_70 (CR), Maselop_72 (CR), Polyyuki_72 (CR),

Start 30:

- Found in 1 of 443 (0.2%) of genes in pham
- Manual Annotations of this start: 1 of 393
- Called 100.0% of time when present
- Phage (with cluster) where this start called: MacGully_81 (CR),

Start 31:

- Found in 1 of 443 (0.2%) of genes in pham
- Manual Annotations of this start: 1 of 393
- Called 100.0% of time when present
- Phage (with cluster) where this start called: ChewyVIII_83 (singleton),

Start 40:

- Found in 1 of 443 (0.2%) of genes in pham
- Manual Annotations of this start: 1 of 393
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Barnyard_65 (H2),

Start 41:

- Found in 1 of 443 (0.2%) of genes in pham
- Manual Annotations of this start: 1 of 393
- Called 100.0% of time when present
- Phage (with cluster) where this start called: DrLupo_67 (H2),

Start 42:

- Found in 37 of 443 (8.4%) of genes in pham
- Manual Annotations of this start: 11 of 393
- Called 35.1% of time when present
- Phage (with cluster) where this start called: Alyssamiracle_63 (DV), Avian_60 (DV), Genamy16_63 (DV), Gibbin_62 (DV), GretelLyn_60 (DV), Jalebi_59 (DV), Jamemuya19_61 (DV), LuckyLeo_57 (DV), NovaSharks_62 (DV), ParvusTarda_59 (DV), Sampudon_60 (DV), Wojtek_56 (DV), Zany_58 (DV),

Start 43:

- Found in 78 of 443 (17.6%) of genes in pham
- Manual Annotations of this start: 59 of 393
- Called 83.3% of time when present
- Phage (with cluster) where this start called: Adjutor_52 (D1), Aikoy_65 (AE), Alephilan_61 (DV), Apeppi_55 (DV), Beckerton_60 (H1), BigMama_51 (D1), BirthdayBoy_62 (DV), Butterscotch_52 (D1), Cborch11_63 (H1), Chill_55 (D1), Damien_61 (H1), DaviePasture_60 (DV), Delton_54 (D1), DoobyDoo_59 (DV), Dryad_74 (BN), Erk16_52 (D1), Erutan_60 (DV), Fulcrum_60 (DV), GOATification_60 (DV), Gibson_70 (BN), Giuseppe_53 (D1), Gumball_52 (D1), Hawkeye_56 (D2), Helpful_56 (D1), KandZ_52 (D1), Konstantine_65 (H1), Lambo_58 (DV), Leopard_64 (AE), Lila22_61 (DV), LittleFella_57 (DG2), Lizz_70 (BN), Megatron06_62 (H1), Mima20_62 (DV), MoiGyank_63 (DV), Mopey_54 (D1), NorManre_63 (DV), Nova_52 (D1), Oaker_60 (H1), Onyinye_65 (AE), OtterstedtS21_60 (DV), PBI1_50 (D1),

PHTowN_70 (BN), PLOT_53 (D1), Patos_63 (DV), Penelope2018_53 (D1), Phreeze_60 (H1), Prager_53 (D1), Predator_60 (H1), Puissant_62 (H1), Ranch_60 (DV), Rooney_70 (BN), Rumi_61 (DV), Sadboi_61 (DV), ShakeNBake_70 (BN), SirHarley_54 (D1), Thoth_53 (D1), Thumb_62 (H1), Troll4_53 (D1), Visconti_54 (D1), WaldoWhy_55 (D1), Wentworth_70 (BN), Wilkos_72 (BN), Xenia2_54 (DV), Yara_66 (BN), Yikes_62 (DV),

Start 45:

- Found in 1 of 443 (0.2%) of genes in pham
- Manual Annotations of this start: 1 of 393
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Cece_97 (GD3),

Start 46:

- Found in 2 of 443 (0.5%) of genes in pham
- No Manual Annotations of this start.
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Tillicus_57 (DV),

Start 48:

- Found in 13 of 443 (2.9%) of genes in pham
- Manual Annotations of this start: 13 of 393
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Beyoncage_50 (DG1), BiteSize_50 (DG1), BlueNGold_166 (DS), Boopy_169 (DS), Djokovic_50 (DG1), Forza_170 (DS), LilyPad_52 (DG1), Madi_50 (DG1), Mareelih_167 (DS), Sienna_50 (DG1), Sixama_168 (DS), Suzy_49 (DG1), Terapin_51 (DG1),

Start 49:

- Found in 10 of 443 (2.3%) of genes in pham
- Manual Annotations of this start: 2 of 393
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Atuin_98 (FC), Bloom_105 (FC), DunneganBoMo_94 (FC), GMA2_64 (DS), Mimi_107 (FC), Patbob_102 (FC), Phrampa_96 (FC), Racecar_102 (FC), SJReid_108 (FC), Talia1610_101 (FC),

Start 50:

- Found in 8 of 443 (1.8%) of genes in pham
- Manual Annotations of this start: 3 of 393
- Called 37.5% of time when present
- Phage (with cluster) where this start called: Labelle_76 (U), Madrugua_74 (U), Patience_76 (U),

Start 51:

- Found in 35 of 443 (7.9%) of genes in pham
- Manual Annotations of this start: 32 of 393
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Aesir_39 (EF), Anakin_40 (EF), AnnaSerena_40 (EF), AnnabelLee_38 (FR), Chivey_40 (EF), CoolCookie_40 (EF), Crestdrop_40 (EF), Cybele_40 (EF), DannyDe_40 (EF), Dauntless_39 (EF), Erudite_39 (EF), FreddieHg_40 (EF), Gilda_40 (EF), Hager_41 (EF), Haunter_40 (EF), Hiddenleaf_40 (EF), JDawG_39 (EF), JingleBells_40 (EF), Karate_39 (EF), Kate_41 (EF), Krampus_40 (EF), MortySmith_38 (EF), NarutoRun_40 (EF),

Neptune_40 (EF), OverHedge_40 (EF), Pharpay_40 (EF), PhunaPhoke_40 (EF), Potty_40 (EF), Poultruss_39 (EF), Rachella_40 (EF), Rie18_40 (EF), Snakehole_40 (EF), TMaxx_40 (FR), Tedro_40 (EF), Wollypog_43 (singleton),

Start 53:

- Found in 8 of 443 (1.8%) of genes in pham
- Manual Annotations of this start: 7 of 393
- Called 87.5% of time when present
- Phage (with cluster) where this start called: A3Wally_114 (GD1), Big4_103 (GD2), GodonK_184 (DK), PauloDiaboli_114 (GD1), Phendrix_173 (DK), Pumpernickel_111 (GD4), Zooman_98 (GD2),

Start 54:

- Found in 5 of 443 (1.1%) of genes in pham
- Manual Annotations of this start: 3 of 393
- Called 80.0% of time when present
- Phage (with cluster) where this start called: Ajin_42 (EF), Kors_43 (EF), RikSengupta_42 (EF), Sparcetus_42 (EF),

Start 55:

- Found in 9 of 443 (2.0%) of genes in pham
- Manual Annotations of this start: 8 of 393
- Called 100.0% of time when present
- Phage (with cluster) where this start called: C3PO_72 (EN), Cruella_72 (EN), Darwin_73 (EN), Kimchi1738_73 (EN), P1201_75 (singleton), PeteyPab_71 (EN), PotatoChip_72 (EN), Stickynote_71 (EN), Zion_72 (EN),

Start 57:

- Found in 37 of 443 (8.4%) of genes in pham
- Manual Annotations of this start: 1 of 393
- Called 2.7% of time when present
- Phage (with cluster) where this start called: DumpTruck_58 (DV),

Start 69:

- Found in 13 of 443 (2.9%) of genes in pham
- Manual Annotations of this start: 2 of 393
- Called 30.8% of time when present
- Phage (with cluster) where this start called: GTE8_60 (CR2), NatB6_72 (CR2), Phomeo_72 (CR2), Wheezy_72 (CR2),

Start 78:

- Found in 20 of 443 (4.5%) of genes in pham
- Manual Annotations of this start: 1 of 393
- Called 5.0% of time when present
- Phage (with cluster) where this start called: NosilaM_73 (CR2),

Start 79:

- Found in 3 of 443 (0.7%) of genes in pham
- Manual Annotations of this start: 3 of 393
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Cuke_73 (AC), Fowlmouth_74 (AC), MrMiyagi_73 (AC),

Start 85:

- Found in 1 of 443 (0.2%) of genes in pham
- Manual Annotations of this start: 1 of 393
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Indlulamithi_65 (AC),

Start 93:

- Found in 24 of 443 (5.4%) of genes in pham
- Manual Annotations of this start: 3 of 393
- Called 12.5% of time when present
- Phage (with cluster) where this start called: BiPauneto_74 (CR4), Sukkupi_71 (CR4), Yndexa_71 (CR4),

Start 95:

- Found in 53 of 443 (12.0%) of genes in pham
- No Manual Annotations of this start.
- Called 1.9% of time when present
- Phage (with cluster) where this start called: HubbaBubba_68 (CR4),

Start 96:

- Found in 2 of 443 (0.5%) of genes in pham
- Manual Annotations of this start: 2 of 393
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Kharcho_61 (FM), Ottawa_61 (FM),

Start 118:

- Found in 35 of 443 (7.9%) of genes in pham
- Manual Annotations of this start: 6 of 393
- Called 17.1% of time when present
- Phage (with cluster) where this start called: Benczkowski14_57 (CS4), Hollow_57 (CS4), Katyusha_57 (CS4), Niagara_57 (CS4), Teatealatte_58 (CS4), Tredge_57 (CS4),

Start 122:

- Found in 12 of 443 (2.7%) of genes in pham
- Manual Annotations of this start: 2 of 393
- Called 25.0% of time when present
- Phage (with cluster) where this start called: Demosthenes_55 (CS4), Kvothe_56 (CS4), Teech_56 (CS4),

Start 131:

- Found in 15 of 443 (3.4%) of genes in pham
- Manual Annotations of this start: 3 of 393
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Amore2_62 (CS1), Austin_61 (CS1), GMA7_51 (CS1), GTE7_50 (CS1), HayZem_62 (CS1),

Start 147:

- Found in 10 of 443 (2.3%) of genes in pham
- Manual Annotations of this start: 9 of 393
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Candle_64 (R), MontyDev_68 (R), Nilo_68 (R), Papyrus_66 (R), Riparian_68 (R), Rope_66 (R), Send513_66 (R),

Weiss13_66 (R), Yelo_65 (R), Zenon_68 (R),

Start 166:

- Found in 4 of 443 (0.9%) of genes in pham
- Manual Annotations of this start: 1 of 393
- Called 50.0% of time when present
- Phage (with cluster) where this start called: ASerpRocky_55 (CS4), Philon9_55 (CS4),

Start 169:

- Found in 8 of 443 (1.8%) of genes in pham
- Manual Annotations of this start: 8 of 393
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Edmundo_94 (AL), Kovu_95 (AL), Laroye_95 (AL), LiSara_92 (AL), Salgado_95 (AL), Shrooms_93 (AL), Waltz_91 (AL), Wheelbite_90 (AL),

Start 172:

- Found in 64 of 443 (14.4%) of genes in pham
- Manual Annotations of this start: 2 of 393
- Called 6.2% of time when present
- Phage (with cluster) where this start called: Charianelly_57 (CS3), CinnamonToast_65 (CS2), Eggsie_58 (CS2), Woes_57 (CS3),

Start 185:

- Found in 4 of 443 (0.9%) of genes in pham
- Manual Annotations of this start: 1 of 393
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Kaseim_57 (CS3), Luker_58 (CS3),

Start 187:

- Found in 37 of 443 (8.4%) of genes in pham
- Manual Annotations of this start: 24 of 393
- Called 73.0% of time when present
- Phage (with cluster) where this start called: Adgers_62 (CS2), Barbochs_59 (CS2), Beaver_62 (CS2), BirksAndSocks_64 (CS2), Boneham_63 (CS2), Breezic_59 (CS2), Butterball_62 (CS2), CathyBurgh_58 (CS2), Ekhein_59 (CS2), Exiguo_58 (CS2), FelixAlejandro_64 (CS2), Flakey_58 (CS2), Gorko_58 (CS2), GourdThymes_59 (CS2), Hotorobo_59 (CS2), Jellybones_61 (CS2), John316_62 (CS2), Lizzo_59 (CS2), Monty_58 (CS2), Msay19_64 (CS2), Poland_64 (CS2), RemRem_60 (CS2), RoyalG_59 (CS2), Sam12_58 (CS2), Sombrero_60 (CS2), Squibbles_58 (CS2), SteveFrench_58 (CS2),

Start 190:

- Found in 1 of 443 (0.2%) of genes in pham
- Manual Annotations of this start: 1 of 393
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Trogglehumper_76 (singleton),

Start 195:

- Found in 5 of 443 (1.1%) of genes in pham
- Manual Annotations of this start: 1 of 393
- Called 20.0% of time when present

- Phage (with cluster) where this start called: PokyPuppy_58 (CS2),

Start 197:

- Found in 3 of 443 (0.7%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Gmala1_55 (DF1), GordDuk1_59 (DF1), GordTnk2_60 (DF1),

Start 198:

- Found in 13 of 443 (2.9%) of genes in pham
- No Manual Annotations of this start.
- Called 15.4% of time when present
- Phage (with cluster) where this start called: Commonplace_74 (JD), Nonagon_72 (JD),

Start 201:

- Found in 5 of 443 (1.1%) of genes in pham
- Manual Annotations of this start: 5 of 393
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Gibbles_56 (CX), Kampe_58 (CX), Orchid_57 (CX), PatrickStar_58 (CX), RobinSparkles_61 (CX),

Start 203:

- Found in 8 of 443 (1.8%) of genes in pham
- Manual Annotations of this start: 3 of 393
- Called 75.0% of time when present
- Phage (with cluster) where this start called: Camerico_63 (DF), DocB7_048 (singleton), GMA3_58 (DF2), Jumbo_57 (DF3), Mbo2_52 (singleton), Reynauld_56 (singleton),

Start 213:

- Found in 4 of 443 (0.9%) of genes in pham
- Manual Annotations of this start: 1 of 393
- Called 25.0% of time when present
- Phage (with cluster) where this start called: FireCastle_33 (EJ),

Start 214:

- Found in 3 of 443 (0.7%) of genes in pham
- Manual Annotations of this start: 3 of 393
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Htur_33 (EJ), PermaG_34 (EJ), Rasovi_33 (EJ),

Start 215:

- Found in 87 of 443 (19.6%) of genes in pham
- Manual Annotations of this start: 84 of 393
- Called 98.9% of time when present
- Phage (with cluster) where this start called: Albanese_29 (AK), Aledel_26 (AK), AppleCider_29 (AK), AustinPowers_26 (AK), Beethoven_29 (AK), Bennie_25 (AK), Benry_32 (EJ), BigMack_25 (AK), Bodacious_25 (AK), BrotherBLo_29 (AK), Canowicakte_29 (AK), Carpal_29 (AK), ChewChew_25 (AK), Cholula_29 (AK), Chridison_26 (AK), Christian_25 (AK), Cicada_35 (EJ), CristinaYang_25 (AK),

Daiboju_26 (AK), DrRobert_25 (AK), DreamTeam_25 (AK), EstebanJulior_26 (AK), Eunoia_26 (AK), Fluke_29 (AK), Gisselle_25 (AK), Glenn_29 (AK), Goodman_34 (EJ), GreenHearts_29 (AK), Greenhouse_29 (AK), Herb_26 (AK), HunterDalle_26 (AK), Huntingdon_29 (AK), IndiRoo_34 (EJ), Jera_34 (EJ), Joann_29 (AK), Johann_34 (EJ), Jumboset_29 (AK), Kalizoi_29 (AK), KingBob_26 (AK), Kittykat_25 (AK), Korra_30 (AK), Lakshmi_29 (AK), LilStuart_25 (AK), Litotes_29 (AK), Lucy_25 (AK), Makoto_25 (AK), MamaPearl_26 (AK), Maria1952_26 (AK), MeganNoll_29 (AK), Milani_33 (EJ), Misaeng_29 (AK), Moki_25 (AK), Nancia_25 (AK), Nubia_29 (AK), OMalley_26 (AK), Oxynfrius_29 (AK), PartyCup_29 (AK), PinkFriday_25 (AK), PitaDog_25 (AK), Potatoes_29 (AK), Preamble_25 (AK), Pumancara_25 (AK), RAP15_29 (AK), RcigaStruga_29 (AK), Riovina_26 (AK), Riverdale_29 (AK), Rozby_29 (AK), SBlackberry_33 (EJ), Savage2526_29 (AK), Scuttle_29 (AK), Sergei_26 (AK), Sucha_30 (EJ), Suppi_29 (AK), TattModd_29 (AK), Temper16_26 (AK), Theresita_31 (EA7), TurboVicky_33 (EJ), Typher_35 (EJ), Urla_26 (AK), Vallejo_29 (AK), Vulture_26 (AK), Wawa_29 (AK), Wayne_29 (AK), WonderBoy_25 (AK), Zanella_33 (EJ), Zorro_29 (AK),

Start 217:

- Found in 4 of 443 (0.9%) of genes in pham
- Manual Annotations of this start: 3 of 393
- Called 75.0% of time when present
- Phage (with cluster) where this start called: Alone3_128 (BS), BRock_117 (BS), LuckySocke_124 (BS),

Start 218:

- Found in 3 of 443 (0.7%) of genes in pham
- Manual Annotations of this start: 1 of 393
- Called 33.3% of time when present
- Phage (with cluster) where this start called: GiJojo_116 (BS),

Start 221:

- Found in 13 of 443 (2.9%) of genes in pham
- Manual Annotations of this start: 12 of 393
- Called 92.3% of time when present
- Phage (with cluster) where this start called: Araceli_42 (BH), Archimedes_37 (DA), Bogota_43 (BH), Crosby_42 (BH), Henoccus_42 (BH), Intolerant_41 (BH), JackieB_42 (BH), LazerLemon_42 (BH), Microdon_41 (BH), Sapo_34 (DA), Stuff_42 (BH), UNTPL_44 (BH),

Start 223:

- Found in 12 of 443 (2.7%) of genes in pham
- Manual Annotations of this start: 2 of 393
- Called 25.0% of time when present
- Phage (with cluster) where this start called: Frizzle_36 (DA), Ghobes_35 (DA), Marky_44 (BH),

Start 238:

- Found in 46 of 443 (10.4%) of genes in pham
- Manual Annotations of this start: 27 of 393
- Called 60.9% of time when present
- Phage (with cluster) where this start called: Anamika_57 (CS3), BenoitCattle_59 (CS2), Berries_57 (CS3), Bianmat_57 (CS3), BigShaq_58 (CS2), Chelms_59 (CS2), Dakiti_60 (CS2), Damp_57 (CS3), Diabla_63 (CS2), GalacticEye_57 (CS3),

Guillaume_57 (CS3), Hail2Pitt_56 (CS3), Harambe_57 (CS3), Hello_57 (CS3), Jams_57 (CS3), Jormungandr_57 (CS3), Lahirium_57 (CS3), Lidong_57 (CS3), Linetti_59 (CS2), Minos_58 (CS3), MrWormie_57 (CS3), Neoevie_57 (CS3), Newt_58 (CS3), Nimi13_57 (CS3), PierreThree_58 (CS2), Shelley_57 (CS3), Sticker17_57 (CS3), Teal_57 (CS3),

Start 262:

- Found in 76 of 443 (17.2%) of genes in pham
- No Manual Annotations of this start.
- Called 1.3% of time when present
- Phage (with cluster) where this start called: GTE5_60 (CR1),

Summary by clusters:

There are 47 clusters represented in this pham: GD1, GD2, GD3, GD4, DK, DF, BN, BH, singleton, DA, JD, FC, BS, DV, DG1, DS, FR, DF1, DF3, DF2, FM, CS4, CS1, CS3, CS2, AC, EN, AE, EJ, AK, EF, AL, DG2, R, U, CR, EA7, CR2, CR3, CR1, CR4, CR5, H2, H1, CX, D2, D1,

Info for manual annotations of cluster AC:

- Start number 79 was manually annotated 3 times for cluster AC.
- Start number 85 was manually annotated 1 time for cluster AC.

Info for manual annotations of cluster AE:

- Start number 43 was manually annotated 3 times for cluster AE.

Info for manual annotations of cluster AK:

- Start number 215 was manually annotated 72 times for cluster AK.

Info for manual annotations of cluster AL:

- Start number 169 was manually annotated 8 times for cluster AL.

Info for manual annotations of cluster BH:

- Start number 221 was manually annotated 10 times for cluster BH.
- Start number 223 was manually annotated 1 time for cluster BH.

Info for manual annotations of cluster BN:

- Start number 43 was manually annotated 8 times for cluster BN.

Info for manual annotations of cluster BS:

- Start number 217 was manually annotated 3 times for cluster BS.
- Start number 218 was manually annotated 1 time for cluster BS.

Info for manual annotations of cluster CR:

- Start number 29 was manually annotated 6 times for cluster CR.
- Start number 30 was manually annotated 1 time for cluster CR.

Info for manual annotations of cluster CR1:

- Start number 27 was manually annotated 3 times for cluster CR1.

Info for manual annotations of cluster CR2:

- Start number 27 was manually annotated 17 times for cluster CR2.
- Start number 69 was manually annotated 2 times for cluster CR2.

- Start number 78 was manually annotated 1 time for cluster CR2.

Info for manual annotations of cluster CR3:

- Start number 27 was manually annotated 5 times for cluster CR3.

Info for manual annotations of cluster CR4:

- Start number 27 was manually annotated 4 times for cluster CR4.
- Start number 93 was manually annotated 3 times for cluster CR4.

Info for manual annotations of cluster CR5:

- Start number 27 was manually annotated 2 times for cluster CR5.

Info for manual annotations of cluster CS1:

- Start number 131 was manually annotated 3 times for cluster CS1.

Info for manual annotations of cluster CS2:

- Start number 187 was manually annotated 24 times for cluster CS2.
- Start number 195 was manually annotated 1 time for cluster CS2.
- Start number 238 was manually annotated 6 times for cluster CS2.

Info for manual annotations of cluster CS3:

- Start number 172 was manually annotated 2 times for cluster CS3.
- Start number 185 was manually annotated 1 time for cluster CS3.
- Start number 238 was manually annotated 21 times for cluster CS3.

Info for manual annotations of cluster CS4:

- Start number 118 was manually annotated 6 times for cluster CS4.
- Start number 122 was manually annotated 2 times for cluster CS4.
- Start number 166 was manually annotated 1 time for cluster CS4.

Info for manual annotations of cluster CX:

- Start number 201 was manually annotated 5 times for cluster CX.

Info for manual annotations of cluster D1:

- Start number 43 was manually annotated 20 times for cluster D1.

Info for manual annotations of cluster D2:

- Start number 43 was manually annotated 1 time for cluster D2.

Info for manual annotations of cluster DA:

- Start number 221 was manually annotated 2 times for cluster DA.
- Start number 223 was manually annotated 1 time for cluster DA.

Info for manual annotations of cluster DF:

- Start number 203 was manually annotated 1 time for cluster DF.

Info for manual annotations of cluster DF3:

- Start number 203 was manually annotated 1 time for cluster DF3.

Info for manual annotations of cluster DG1:

- Start number 48 was manually annotated 8 times for cluster DG1.

Info for manual annotations of cluster DG2:

- Start number 43 was manually annotated 1 time for cluster DG2.

Info for manual annotations of cluster DK:

- Start number 53 was manually annotated 2 times for cluster DK.

Info for manual annotations of cluster DS:

- Start number 48 was manually annotated 5 times for cluster DS.

Info for manual annotations of cluster DV:

- Start number 42 was manually annotated 11 times for cluster DV.
- Start number 43 was manually annotated 17 times for cluster DV.
- Start number 57 was manually annotated 1 time for cluster DV.

Info for manual annotations of cluster EA7:

- Start number 215 was manually annotated 1 time for cluster EA7.

Info for manual annotations of cluster EF:

- Start number 23 was manually annotated 1 time for cluster EF.
- Start number 51 was manually annotated 31 times for cluster EF.
- Start number 54 was manually annotated 3 times for cluster EF.

Info for manual annotations of cluster EJ:

- Start number 213 was manually annotated 1 time for cluster EJ.
- Start number 214 was manually annotated 3 times for cluster EJ.
- Start number 215 was manually annotated 11 times for cluster EJ.

Info for manual annotations of cluster EN:

- Start number 55 was manually annotated 8 times for cluster EN.

Info for manual annotations of cluster FC:

- Start number 49 was manually annotated 2 times for cluster FC.

Info for manual annotations of cluster FM:

- Start number 96 was manually annotated 2 times for cluster FM.

Info for manual annotations of cluster GD1:

- Start number 53 was manually annotated 2 times for cluster GD1.

Info for manual annotations of cluster GD2:

- Start number 53 was manually annotated 2 times for cluster GD2.

Info for manual annotations of cluster GD3:

- Start number 45 was manually annotated 1 time for cluster GD3.

Info for manual annotations of cluster GD4:

- Start number 53 was manually annotated 1 time for cluster GD4.

Info for manual annotations of cluster H1:

- Start number 43 was manually annotated 9 times for cluster H1.

Info for manual annotations of cluster H2:

- Start number 40 was manually annotated 1 time for cluster H2.
- Start number 41 was manually annotated 1 time for cluster H2.

Info for manual annotations of cluster R:

- Start number 147 was manually annotated 9 times for cluster R.

Info for manual annotations of cluster U:

- Start number 50 was manually annotated 3 times for cluster U.

Gene Information:

Gene: A3Wally_114 Start: 79188, Stop: 77338, Start Num: 53

Candidate Starts for A3Wally_114:

(34, 79257), (35, 79251), (Start: 53 @79188 has 7 MA's), (64, 79143), (68, 79131), (109, 79005), (128, 78942), (176, 78867), (222, 78759), (233, 78741), (257, 78672), (269, 78645), (330, 78585), (377, 78420), (416, 78276), (440, 78189), (453, 78162), (468, 78126), (470, 78117), (494, 78060), (496, 78054), (510, 78009), (515, 77997), (524, 77976), (530, 77952), (538, 77916), (556, 77871), (610, 77787), (612, 77784), (614, 77778), (638, 77715), (666, 77613), (685, 77526), (695, 77484), (709, 77433),

Gene: ASerpRocky_55 Start: 52672, Stop: 51098, Start Num: 166

Candidate Starts for ASerpRocky_55:

(Start: 118 @52804 has 6 MA's), (Start: 122 @52792 has 2 MA's), (160, 52693), (Start: 166 @52672 has 1 MA's), (192, 52606), (240, 52507), (253, 52471), (261, 52447), (265, 52438), (268, 52429), (290, 52381), (301, 52357), (321, 52315), (327, 52300), (361, 52225), (376, 52165), (377, 52162), (397, 52096), (399, 52093), (409, 52057), (410, 52054), (415, 52027), (419, 52015), (429, 51967), (445, 51934), (456, 51910), (468, 51886), (476, 51862), (497, 51796), (526, 51697), (569, 51598), (585, 51565), (586, 51562), (648, 51445), (649, 51442), (665, 51385), (668, 51367), (694, 51250), (695, 51247), (699, 51235), (736, 51136), (747, 51115),

Gene: Adgers_62 Start: 52192, Stop: 50660, Start Num: 187

Candidate Starts for Adgers_62:

(102, 52447), (115, 52396), (149, 52291), (164, 52261), (Start: 172 @52228 has 2 MA's), (175, 52219), (Start: 187 @52192 has 24 MA's), (253, 52024), (268, 51982), (276, 51964), (290, 51934), (294, 51922), (301, 51910), (303, 51904), (310, 51883), (378, 51715), (405, 51628), (409, 51613), (411, 51601), (419, 51571), (468, 51442), (479, 51400), (483, 51382), (489, 51379), (492, 51370), (497, 51352), (526, 51265), (586, 51130), (593, 51115), (601, 51094), (648, 51013), (649, 51010), (665, 50953), (666, 50947), (668, 50935), (680, 50884), (685, 50860), (694, 50821), (698, 50809), (699, 50806), (728, 50713), (736, 50698),

Gene: Adjutor_52 Start: 39669, Stop: 41612, Start Num: 43

Candidate Starts for Adjutor_52:

(Start: 43 @39669 has 59 MA's), (59, 39696), (82, 39768), (94, 39822), (110, 39882), (117, 39900), (Start: 118 @39909 has 6 MA's), (138, 39960), (153, 40002), (174, 40038), (209, 40125), (252, 40218), (257, 40233), (266, 40254), (319, 40356), (337, 40389), (348, 40413), (373, 40473), (396, 40560), (416, 40635), (446, 40725), (468, 40776), (469, 40779), (491, 40869), (496, 40887), (504, 40920), (525, 40974), (529, 40986), (534, 41004), (573, 41067), (608, 41151), (648, 41268), (656, 41316), (672, 41379), (691, 41463),

Gene: Aesir_39 Start: 25591, Stop: 27498, Start Num: 51

Candidate Starts for Aesir_39:

(15, 25417), (Start: 51 @25591 has 32 MA's), (74, 25654), (86, 25675), (95, 25729), (142, 25864), (159, 25906), (184, 25951), (257, 26125), (260, 26134), (305, 26224), (320, 26266), (326, 26281), (386, 26467), (426, 26602), (429, 26614), (444, 26647), (478, 26740), (496, 26776), (526, 26866), (534, 26893), (656, 27202), (658, 27205), (671, 27265), (692, 27355), (701, 27385), (714, 27427), (732, 27478),

Gene: Aikoy_65 Start: 45786, Stop: 47714, Start Num: 43

Candidate Starts for Aikoy_65:

(Start: 43 @45786 has 59 MA's), (58, 45807), (64, 45837), (Start: 93 @45936 has 3 MA's), (110, 45999), (134, 46071), (139, 46080), (159, 46128), (257, 46344), (266, 46365), (278, 46386), (279, 46389), (289, 46401), (304, 46428), (355, 46551), (373, 46587), (387, 46659), (392, 46668), (406, 46701), (419, 46758), (422, 46770), (446, 46839), (449, 46848), (458, 46866), (468, 46890), (493, 46986), (496, 46998), (504, 47031), (523, 47073), (538, 47136), (603, 47241), (667, 47457), (671, 47481), (672, 47484), (683, 47526), (690, 47556), (697, 47580), (739, 47697),

Gene: Ajin_42 Start: 26641, Stop: 28575, Start Num: 54

Candidate Starts for Ajin_42:

(11, 26401), (Start: 23 @26545 has 1 MA's), (Start: 50 @26635 has 3 MA's), (Start: 54 @26641 has 3 MA's), (95, 26788), (100, 26806), (103, 26815), (159, 26965), (219, 27091), (257, 27181), (260, 27190), (305, 27280), (320, 27322), (331, 27352), (377, 27484), (429, 27670), (436, 27688), (444, 27703), (468, 27760), (482, 27820), (518, 27892), (579, 28030), (605, 28096), (609, 28126), (639, 28204), (658, 28282), (671, 28342), (682, 28381), (692, 28432), (699, 28450), (733, 28558),

Gene: Albanese_29 Start: 22144, Stop: 23535, Start Num: 215

Candidate Starts for Albanese_29:

(Start: 215 @22144 has 84 MA's), (255, 22231), (295, 22303), (297, 22306), (324, 22369), (326, 22372), (332, 22390), (340, 22396), (358, 22423), (379, 22480), (389, 22531), (405, 22570), (413, 22606), (418, 22624), (424, 22660), (432, 22681), (440, 22699), (462, 22732), (477, 22771), (491, 22813), (499, 22840), (508, 22864), (518, 22900), (520, 22906), (530, 22939), (534, 22954), (535, 22963), (560, 23008), (578, 23041), (580, 23044), (612, 23128), (618, 23149), (621, 23161), (630, 23179), (653, 23269), (664, 23290), (665, 23293), (669, 23317), (670, 23326), (691, 23413), (721, 23503), (734, 23527),

Gene: Aledel_26 Start: 21745, Stop: 23139, Start Num: 215

Candidate Starts for Aledel_26:

(Start: 215 @21745 has 84 MA's), (244, 21802), (281, 21889), (295, 21907), (297, 21910), (332, 21994), (358, 22027), (375, 22078), (379, 22084), (394, 22144), (405, 22174), (413, 22210), (418, 22228), (432, 22285), (440, 22303), (444, 22309), (462, 22336), (491, 22417), (499, 22444), (508, 22468), (513, 22483), (520, 22510), (530, 22543), (534, 22558), (598, 22690), (609, 22726), (618, 22753), (621, 22765), (630, 22783), (653, 22873), (657, 22879), (664, 22894), (665, 22897), (670, 22930), (685, 22990), (691, 23017), (713, 23074), (721, 23107), (734, 23131),

Gene: Alephilan_61 Start: 40725, Stop: 42638, Start Num: 43

Candidate Starts for Alephilan_61:

(17, 40599), (18, 40608), (19, 40620), (26, 40653), (Start: 42 @40722 has 11 MA's), (Start: 43 @40725 has 59 MA's), (Start: 57 @40737 has 1 MA's), (68, 40785), (81, 40818), (124, 40977), (134, 41004), (139, 41013), (174, 41085), (227, 41202), (229, 41205), (254, 41268), (266, 41295), (299, 41358), (309, 41385), (371, 41514), (377, 41538), (385, 41580), (404, 41628), (409, 41649), (413, 41670), (426, 41727), (431, 41745), (446, 41781), (465, 41823), (480, 41883), (504, 41979), (506, 41982), (617, 42210), (648, 42300), (656, 42336), (659, 42342), (671, 42396), (682, 42435), (707, 42537), (711, 42552), (718, 42573),

Gene: Alone3_128 Start: 69071, Stop: 70642, Start Num: 217

Candidate Starts for Alone3_128:

(Start: 217 @69071 has 3 MA's), (251, 69152), (261, 69176), (294, 69242), (332, 69323), (362, 69389), (379, 69455), (380, 69464), (404, 69542), (416, 69593), (445, 69695), (454, 69716), (456, 69719), (471, 69770), (475, 69779), (478, 69794), (480, 69806), (498, 69854), (502, 69869), (602, 70139), (606, 70151), (613, 70175), (642, 70262), (669, 70367), (699, 70487), (701, 70499), (718, 70556), (720, 70568), (722, 70574), (747, 70622),

Gene: Alyssamiracle_63 Start: 39828, Stop: 41744, Start Num: 42

Candidate Starts for Alyssamiracle_63:

(Start: 42 @39828 has 11 MA's), (Start: 43 @39831 has 59 MA's), (Start: 57 @39843 has 1 MA's), (68, 39891), (81, 39924), (124, 40083), (134, 40110), (139, 40119), (174, 40191), (229, 40311), (254, 40374), (299, 40464), (309, 40491), (371, 40620), (377, 40644), (385, 40686), (387, 40698), (396, 40713), (404, 40734), (409, 40755), (413, 40776), (426, 40833), (431, 40851), (446, 40887), (465, 40929), (480, 40989), (504, 41085), (506, 41088), (596, 41265), (617, 41316), (648, 41406), (656, 41442), (659, 41448), (671, 41502), (682, 41541), (707, 41643), (711, 41658), (718, 41679),

Gene: Amore2_62 Start: 52713, Stop: 51082, Start Num: 131

Candidate Starts for Amore2_62:

(Start: 131 @52713 has 3 MA's), (138, 52701), (161, 52650), (163, 52644), (183, 52587), (253, 52446), (268, 52404), (273, 52392), (290, 52356), (291, 52353), (303, 52326), (321, 52290), (326, 52278), (332, 52263), (374, 52155), (405, 52050), (409, 52035), (445, 51912), (468, 51864), (476, 51840), (479, 51822), (497, 51774), (513, 51723), (526, 51687), (532, 51669), (586, 51552), (606, 51501), (642, 51459), (656, 51399), (668, 51357), (680, 51306), (685, 51282), (736, 51120), (747, 51099),

Gene: Anakin_40 Start: 25911, Stop: 27818, Start Num: 51

Candidate Starts for Anakin_40:

(Start: 51 @25911 has 32 MA's), (74, 25974), (86, 25995), (95, 26049), (159, 26226), (184, 26271), (257, 26445), (260, 26454), (305, 26544), (326, 26601), (386, 26787), (426, 26922), (429, 26934), (444, 26967), (496, 27096), (534, 27213), (585, 27288), (656, 27522), (658, 27525), (671, 27585), (692, 27675), (701, 27705), (714, 27747), (732, 27798),

Gene: Anamika_57 Start: 52887, Stop: 51475, Start Num: 238

Candidate Starts for Anamika_57:

(102, 53235), (143, 53106), (171, 53019), (Start: 172 @53016 has 2 MA's), (Start: 238 @52887 has 27 MA's), (253, 52842), (290, 52752), (291, 52749), (293, 52743), (303, 52722), (332, 52659), (374, 52551), (378, 52533), (405, 52446), (409, 52431), (419, 52389), (445, 52308), (468, 52260), (479, 52218), (483, 52200), (489, 52197), (497, 52170), (513, 52119), (526, 52083), (539, 52032), (586, 51948), (594, 51927), (665, 51771), (666, 51765), (668, 51753), (698, 51627), (736, 51513),

Gene: AnnaSerena_40 Start: 25946, Stop: 27853, Start Num: 51

Candidate Starts for AnnaSerena_40:

(Start: 51 @25946 has 32 MA's), (74, 26009), (86, 26030), (95, 26084), (159, 26261), (184, 26306), (257, 26480), (260, 26489), (305, 26579), (326, 26636), (386, 26822), (426, 26957), (429, 26969), (444, 27002), (496, 27131), (534, 27248), (585, 27323), (656, 27557), (658, 27560), (671, 27620), (692, 27710), (701, 27740), (714, 27782), (732, 27833),

Gene: AnnabelLee_38 Start: 26373, Stop: 24541, Start Num: 51

Candidate Starts for AnnabelLee_38:

(Start: 51 @26373 has 32 MA's), (68, 26316), (138, 26115), (196, 25980), (252, 25845), (262, 25818), (338, 25761), (343, 25746), (363, 25692), (377, 25596), (379, 25590), (382, 25575), (393, 25530),

(409, 25482), (413, 25461), (418, 25443), (429, 25392), (467, 25299), (470, 25287), (496, 25224), (521, 25152), (536, 25092), (546, 25071), (585, 25005), (594, 24987), (609, 24969), (610, 24966), (621, 24930), (656, 24822), (660, 24813), (674, 24753), (685, 24705),

Gene: Apeppi_55 Start: 40047, Stop: 41966, Start Num: 43

Candidate Starts for Apeppi_55:

(16, 39927), (17, 39948), (19, 39969), (36, 39999), (39, 40032), (Start: 42 @40044 has 11 MA's), (Start: 43 @40047 has 59 MA's), (Start: 57 @40062 has 1 MA's), (60, 40077), (68, 40110), (81, 40143), (84, 40146), (Start: 93 @40194 has 3 MA's), (98, 40212), (124, 40302), (130, 40320), (134, 40329), (139, 40338), (174, 40410), (229, 40530), (231, 40533), (254, 40593), (262, 40611), (299, 40683), (309, 40710), (373, 40845), (377, 40863), (385, 40905), (392, 40926), (396, 40932), (409, 40974), (413, 40995), (419, 41016), (426, 41052), (465, 41151), (467, 41160), (480, 41211), (504, 41307), (506, 41310), (566, 41421), (596, 41487), (608, 41511), (617, 41538), (668, 41706), (671, 41724), (677, 41748), (682, 41763), (683, 41769), (691, 41811), (697, 41826), (707, 41865), (711, 41880), (718, 41901), (744, 41958),

Gene: Apiary_72 Start: 53146, Stop: 51110, Start Num: 29

Candidate Starts for Apiary_72:

(10, 53314), (Start: 29 @53146 has 6 MA's), (44, 53080), (61, 53038), (156, 52753), (189, 52696), (209, 52645), (219, 52630), (257, 52540), (262, 52528), (305, 52435), (341, 52363), (373, 52294), (387, 52222), (409, 52165), (468, 51985), (474, 51961), (488, 51898), (496, 51862), (525, 51775), (585, 51643), (601, 51604), (602, 51601), (610, 51556), (656, 51409), (672, 51346), (683, 51304), (691, 51265), (700, 51241),

Gene: AppleCider_29 Start: 22130, Stop: 23524, Start Num: 215

Candidate Starts for AppleCider_29:

(Start: 215 @22130 has 84 MA's), (244, 22187), (295, 22292), (332, 22379), (375, 22463), (378, 22466), (379, 22469), (405, 22559), (413, 22595), (415, 22604), (432, 22670), (440, 22688), (462, 22721), (468, 22733), (491, 22802), (499, 22829), (508, 22853), (518, 22889), (520, 22895), (530, 22928), (534, 22943), (535, 22952), (583, 23042), (609, 23111), (618, 23138), (624, 23156), (630, 23168), (653, 23258), (657, 23264), (662, 23273), (664, 23279), (670, 23315), (691, 23402), (710, 23453), (721, 23492), (734, 23516),

Gene: Araceli_42 Start: 30875, Stop: 32269, Start Num: 221

Candidate Starts for Araceli_42:

(Start: 221 @30875 has 12 MA's), (Start: 223 @30878 has 2 MA's), (253, 30953), (264, 30977), (290, 31007), (291, 31010), (295, 31022), (309, 31055), (345, 31112), (361, 31136), (375, 31181), (379, 31187), (394, 31247), (402, 31268), (415, 31322), (450, 31421), (462, 31448), (466, 31457), (505, 31583), (520, 31631), (526, 31652), (530, 31664), (534, 31679), (541, 31709), (564, 31742), (568, 31751), (589, 31793), (610, 31859), (612, 31862), (618, 31883), (624, 31901), (632, 31919), (649, 31973), (653, 32003), (670, 32060), (671, 32063), (684, 32111), (698, 32165), (720, 32234), (729, 32252),

Gene: Archimedes_37 Start: 33084, Stop: 31684, Start Num: 221

Candidate Starts for Archimedes_37:

(Start: 221 @33084 has 12 MA's), (240, 33042), (253, 33006), (261, 32988), (264, 32982), (290, 32952), (295, 32937), (297, 32934), (332, 32850), (414, 32628), (418, 32616), (462, 32502), (505, 32376), (511, 32364), (516, 32343), (517, 32340), (520, 32328), (530, 32295), (534, 32280), (539, 32256), (564, 32220), (568, 32211), (609, 32112), (630, 32055), (635, 32043), (638, 32037), (662, 31950), (667, 31929), (670, 31908), (694, 31815), (736, 31689),

Gene: Arti_71 Start: 55496, Stop: 53430, Start Num: 27

Candidate Starts for Arti_71:

(6, 55700), (7, 55688), (9, 55670), (Start: 27 @55496 has 31 MA's), (Start: 69 @55358 has 2 MA's), (76, 55334), (139, 55130), (156, 55085), (209, 54977), (260, 54863), (262, 54860), (305, 54770), (307, 54767), (339, 54707), (385, 54569), (390, 54551), (402, 54527), (431, 54404), (468, 54299), (496, 54173), (514, 54119), (567, 53993), (573, 53984), (584, 53960), (608, 53888), (610, 53882), (619, 53852), (641, 53795), (656, 53735), (672, 53672), (691, 53591),

Gene: Atuin_98 Start: 80621, Stop: 82477, Start Num: 49

Candidate Starts for Atuin_98:

(Start: 49 @80621 has 2 MA's), (Start: 131 @80894 has 3 MA's), (196, 80999), (247, 81122), (252, 81134), (256, 81143), (346, 81239), (368, 81314), (377, 81374), (419, 81527), (428, 81572), (453, 81632), (470, 81677), (494, 81734), (496, 81740), (504, 81773), (510, 81785), (515, 81797), (553, 81914), (554, 81917), (585, 81974), (609, 82010), (614, 82022), (619, 82043), (649, 82127), (672, 82220), (678, 82244), (721, 82412), (722, 82415),

Gene: Austin_61 Start: 52711, Stop: 51080, Start Num: 131

Candidate Starts for Austin_61:

(Start: 131 @52711 has 3 MA's), (138, 52699), (161, 52648), (163, 52642), (183, 52585), (253, 52444), (268, 52402), (273, 52390), (290, 52354), (291, 52351), (303, 52324), (321, 52288), (326, 52276), (332, 52261), (374, 52153), (405, 52048), (409, 52033), (445, 51910), (468, 51862), (476, 51838), (479, 51820), (497, 51772), (513, 51721), (526, 51685), (532, 51667), (586, 51550), (606, 51499), (642, 51457), (656, 51397), (668, 51355), (680, 51304), (685, 51280), (736, 51118), (747, 51097),

Gene: AustinPowers_26 Start: 21746, Stop: 23140, Start Num: 215

Candidate Starts for AustinPowers_26:

(Start: 215 @21746 has 84 MA's), (244, 21803), (281, 21890), (295, 21908), (297, 21911), (332, 21995), (358, 22028), (375, 22079), (379, 22085), (394, 22145), (405, 22175), (413, 22211), (418, 22229), (424, 22265), (432, 22286), (440, 22304), (444, 22310), (462, 22337), (491, 22418), (499, 22445), (508, 22469), (513, 22484), (520, 22511), (530, 22544), (534, 22559), (609, 22727), (618, 22754), (621, 22766), (630, 22784), (653, 22874), (657, 22880), (664, 22895), (665, 22898), (685, 22991), (691, 23018), (713, 23075), (721, 23108), (734, 23132),

Gene: Avian_60 Start: 39556, Stop: 41472, Start Num: 42

Candidate Starts for Avian_60:

(Start: 42 @39556 has 11 MA's), (Start: 43 @39559 has 59 MA's), (Start: 57 @39571 has 1 MA's), (68, 39619), (81, 39652), (124, 39811), (134, 39838), (139, 39847), (174, 39919), (229, 40039), (254, 40102), (299, 40192), (309, 40219), (371, 40348), (377, 40372), (385, 40414), (387, 40426), (396, 40441), (404, 40462), (409, 40483), (413, 40504), (426, 40561), (431, 40579), (446, 40615), (465, 40657), (480, 40717), (504, 40813), (506, 40816), (596, 40993), (617, 41044), (648, 41134), (656, 41170), (659, 41176), (671, 41230), (682, 41269), (707, 41371), (711, 41386), (718, 41407),

Gene: BRock_117 Start: 63285, Stop: 64868, Start Num: 217

Candidate Starts for BRock_117:

(Start: 217 @63285 has 3 MA's), (Start: 221 @63294 has 12 MA's), (249, 63360), (251, 63366), (291, 63447), (294, 63456), (324, 63519), (326, 63522), (327, 63525), (332, 63540), (362, 63606), (378, 63669), (379, 63672), (380, 63681), (395, 63735), (404, 63759), (416, 63810), (438, 63891), (448, 63921), (456, 63936), (461, 63948), (471, 63987), (480, 64023), (490, 64044), (498, 64071), (502, 64086), (509, 64107), (520, 64149), (557, 64257), (581, 64305), (597, 64347), (602, 64356), (623, 64428), (636, 64461), (642, 64479), (667, 64572), (669, 64584), (689, 64671), (691, 64683), (699, 64704), (714, 64758), (717, 64770), (741, 64827),

Gene: Barbochs_59 Start: 51736, Stop: 50204, Start Num: 187

Candidate Starts for Barbochs_59:

(102, 51991), (115, 51940), (129, 51889), (149, 51835), (164, 51805), (Start: 172 @51772 has 2 MA's), (175, 51763), (Start: 187 @51736 has 24 MA's), (253, 51568), (268, 51526), (290, 51478), (294, 51466), (301, 51454), (303, 51448), (310, 51427), (326, 51400), (378, 51259), (405, 51172), (409, 51157), (411, 51145), (419, 51115), (430, 51064), (443, 51037), (468, 50986), (476, 50962), (479, 50944), (483, 50926), (489, 50923), (497, 50896), (511, 50854), (526, 50809), (586, 50674), (593, 50659), (601, 50638), (642, 50581), (648, 50557), (665, 50497), (666, 50491), (667, 50485), (668, 50479), (680, 50428), (685, 50404), (694, 50365), (698, 50353), (699, 50350), (728, 50257), (736, 50242), (747, 50221),

Gene: Barnyard_65 Start: 45144, Stop: 47105, Start Num: 40

Candidate Starts for Barnyard_65:

(Start: 40 @45144 has 1 MA's), (56, 45171), (Start: 57 @45177 has 1 MA's), (58, 45183), (75, 45249), (90, 45282), (91, 45297), (Start: 93 @45312 has 3 MA's), (95, 45318), (103, 45345), (113, 45387), (Start: 131 @45447 has 3 MA's), (142, 45468), (154, 45504), (159, 45513), (189, 45576), (198, 45597), (205, 45615), (212, 45630), (216, 45636), (229, 45660), (259, 45735), (262, 45741), (352, 45924), (354, 45936), (365, 45954), (371, 45969), (387, 46047), (431, 46200), (442, 46233), (485, 46368), (491, 46395), (493, 46401), (494, 46407), (511, 46461), (529, 46527), (530, 46530), (566, 46572), (610, 46656), (620, 46689), (654, 46800), (656, 46803), (658, 46806), (660, 46812), (668, 46845), (672, 46866), (673, 46869), (683, 46908), (697, 46962), (706, 46998), (709, 47007), (727, 47064), (737, 47082),

Gene: Beaver_62 Start: 53506, Stop: 51974, Start Num: 187

Candidate Starts for Beaver_62:

(102, 53761), (115, 53710), (129, 53659), (149, 53605), (164, 53575), (Start: 172 @53542 has 2 MA's), (175, 53533), (Start: 187 @53506 has 24 MA's), (253, 53338), (268, 53296), (290, 53248), (294, 53236), (301, 53224), (303, 53218), (310, 53197), (326, 53170), (378, 53029), (405, 52942), (409, 52927), (411, 52915), (419, 52885), (430, 52834), (443, 52807), (468, 52756), (479, 52714), (483, 52696), (489, 52693), (497, 52666), (511, 52624), (526, 52579), (532, 52561), (586, 52444), (593, 52429), (601, 52408), (642, 52351), (648, 52327), (665, 52267), (666, 52261), (667, 52255), (668, 52249), (680, 52198), (685, 52174), (694, 52135), (698, 52123), (728, 52027), (736, 52012), (747, 51991),

Gene: Beckerton_60 Start: 46572, Stop: 48629, Start Num: 43

Candidate Starts for Beckerton_60:

(Start: 43 @46572 has 59 MA's), (66, 46632), (67, 46635), (Start: 93 @46728 has 3 MA's), (97, 46740), (103, 46761), (142, 46884), (144, 46887), (146, 46896), (159, 46929), (165, 46950), (180, 46998), (198, 47040), (229, 47103), (239, 47124), (241, 47130), (262, 47184), (352, 47370), (354, 47382), (365, 47400), (371, 47415), (373, 47421), (468, 47739), (469, 47742), (480, 47787), (493, 47838), (496, 47850), (525, 47940), (529, 47952), (537, 47985), (558, 48009), (563, 48018), (610, 48108), (620, 48141), (654, 48252), (656, 48255), (658, 48258), (659, 48261), (668, 48297), (671, 48315), (686, 48381), (691, 48399), (750, 48576),

Gene: Beethoven_29 Start: 22100, Stop: 23500, Start Num: 215

Candidate Starts for Beethoven_29:

(Start: 215 @22100 has 84 MA's), (244, 22163), (295, 22268), (297, 22271), (332, 22355), (358, 22388), (375, 22439), (379, 22445), (402, 22526), (403, 22529), (405, 22535), (413, 22571), (418, 22589), (419, 22592), (424, 22625), (432, 22646), (440, 22664), (462, 22697), (491, 22778), (499, 22805), (511, 22835), (513, 22844), (520, 22871), (530, 22904), (534, 22919), (560, 22973), (572, 22994), (578, 23006), (583, 23018), (657, 23240), (662, 23249), (664, 23255), (670, 23291), (685, 23351), (691, 23378), (721, 23468),

Gene: Benczkowski14_57 Start: 53319, Stop: 51616, Start Num: 118

Candidate Starts for Benczkowski14_57:

(Start: 118 @53319 has 6 MA's), (Start: 122 @53307 has 2 MA's), (192, 53124), (Start: 238 @53034 has 27 MA's), (240, 53025), (253, 52989), (261, 52965), (265, 52956), (268, 52947), (290, 52899), (301, 52875), (332, 52803), (335, 52800), (347, 52782), (361, 52743), (397, 52614), (409, 52575), (410, 52572), (413, 52554), (415, 52545), (419, 52533), (429, 52485), (445, 52452), (468, 52404), (476, 52380), (497, 52314), (526, 52215), (569, 52116), (574, 52107), (585, 52083), (586, 52080), (642, 51987), (648, 51963), (649, 51960), (665, 51903), (668, 51885), (694, 51768), (695, 51765), (699, 51753), (736, 51654), (747, 51633),

Gene: Bennie_25 Start: 20566, Stop: 21960, Start Num: 215

Candidate Starts for Bennie_25:

(Start: 215 @20566 has 84 MA's), (244, 20623), (295, 20728), (297, 20731), (332, 20815), (358, 20848), (375, 20899), (379, 20905), (405, 20995), (413, 21031), (418, 21049), (419, 21052), (424, 21085), (432, 21106), (491, 21238), (499, 21265), (511, 21295), (513, 21304), (520, 21331), (530, 21364), (534, 21379), (541, 21406), (560, 21433), (580, 21469), (598, 21511), (618, 21574), (624, 21592), (649, 21664), (651, 21688), (653, 21694), (655, 21697), (664, 21715), (665, 21718), (669, 21742), (670, 21751), (691, 21838), (710, 21889), (721, 21928),

Gene: BenoitCattle_59 Start: 52020, Stop: 50611, Start Num: 238

Candidate Starts for BenoitCattle_59:

(102, 52398), (115, 52347), (129, 52296), (149, 52242), (164, 52212), (Start: 172 @52179 has 2 MA's), (175, 52170), (Start: 187 @52143 has 24 MA's), (Start: 238 @52020 has 27 MA's), (253, 51975), (268, 51933), (290, 51885), (291, 51882), (293, 51876), (294, 51873), (301, 51861), (303, 51855), (326, 51807), (327, 51804), (374, 51684), (378, 51666), (397, 51603), (405, 51579), (409, 51564), (419, 51522), (430, 51471), (468, 51393), (483, 51333), (489, 51330), (492, 51321), (497, 51303), (511, 51261), (526, 51216), (586, 51081), (593, 51066), (601, 51045), (648, 50964), (649, 50961), (665, 50904), (666, 50898), (668, 50886), (680, 50835), (685, 50811), (694, 50772), (698, 50760), (728, 50664), (736, 50649),

Gene: Benry_32 Start: 21495, Stop: 22922, Start Num: 215

Candidate Starts for Benry_32:

(Start: 215 @21495 has 84 MA's), (375, 21849), (378, 21852), (383, 21873), (409, 21960), (419, 22002), (517, 22284), (520, 22296), (526, 22317), (534, 22344), (540, 22371), (541, 22374), (560, 22401), (564, 22407), (582, 22443), (618, 22542), (642, 22605), (648, 22623), (649, 22626), (665, 22680), (670, 22713), (674, 22725), (684, 22764), (691, 22800), (694, 22806), (698, 22818), (710, 22851), (719, 22881),

Gene: Berries_57 Start: 52859, Stop: 51447, Start Num: 238

Candidate Starts for Berries_57:

(102, 53207), (143, 53078), (Start: 172 @52988 has 2 MA's), (Start: 238 @52859 has 27 MA's), (253, 52814), (290, 52724), (291, 52721), (293, 52715), (303, 52694), (332, 52631), (374, 52523), (378, 52505), (405, 52418), (409, 52403), (419, 52361), (445, 52280), (468, 52232), (479, 52190), (483, 52172), (489, 52169), (497, 52142), (513, 52091), (526, 52055), (539, 52004), (586, 51920), (594, 51899), (665, 51743), (666, 51737), (668, 51725), (698, 51599), (736, 51485),

Gene: Beyoncage_50 Start: 36615, Stop: 38669, Start Num: 48

Candidate Starts for Beyoncage_50:

(Start: 48 @36615 has 13 MA's), (60, 36639), (84, 36702), (104, 36786), (113, 36828), (208, 37050), (229, 37086), (260, 37161), (278, 37200), (306, 37242), (312, 37260), (319, 37281), (325, 37293), (354, 37353), (361, 37368), (371, 37386), (387, 37464), (396, 37479), (398, 37482), (409, 37521), (413, 37542), (444, 37644), (468, 37701), (472, 37722), (474, 37725), (478, 37737), (491, 37785), (493, 37791), (506, 37839), (520, 37872), (526, 37896), (532, 37914), (538, 37944), (550, 38067), (558, 38100), (565, 38112), (573, 38127), (592, 38166), (608, 38211), (617, 38238), (646, 38322), (663, 38385), (671, 38427), (674, 38436), (676, 38445), (686, 38493), (690, 38502), (691, 38514),

(697, 38529), (708, 38571),

Gene: BiPauneto_74 Start: 54628, Stop: 52772, Start Num: 93

Candidate Starts for BiPauneto_74:

(7, 55045), (9, 55027), (14, 54952), (Start: 27 @54853 has 31 MA's), (Start: 93 @54628 has 3 MA's), (209, 54334), (229, 54301), (239, 54280), (258, 54226), (260, 54220), (262, 54217), (305, 54127), (307, 54124), (339, 54064), (390, 53908), (431, 53761), (468, 53653), (474, 53629), (496, 53527), (514, 53473), (521, 53458), (542, 53377), (573, 53338), (600, 53275), (608, 53236), (610, 53230), (619, 53200), (656, 53083), (672, 53020), (686, 52957), (691, 52939), (716, 52855),

Gene: Bianmat_57 Start: 52899, Stop: 51487, Start Num: 238

Candidate Starts for Bianmat_57:

(102, 53247), (143, 53118), (Start: 172 @53028 has 2 MA's), (Start: 238 @52899 has 27 MA's), (253, 52854), (290, 52764), (291, 52761), (293, 52755), (303, 52734), (332, 52671), (365, 52593), (374, 52563), (378, 52545), (405, 52458), (409, 52443), (419, 52401), (445, 52320), (468, 52272), (479, 52230), (483, 52212), (489, 52209), (497, 52182), (513, 52131), (526, 52095), (539, 52044), (586, 51960), (594, 51939), (665, 51783), (666, 51777), (668, 51765), (698, 51639), (736, 51525),

Gene: Big4_103 Start: 78367, Stop: 76427, Start Num: 53

Candidate Starts for Big4_103:

(Start: 53 @78367 has 7 MA's), (99, 78214), (128, 78121), (176, 78046), (209, 77965), (220, 77941), (333, 77665), (416, 77359), (442, 77269), (468, 77209), (470, 77200), (494, 77143), (496, 77137), (504, 77104), (510, 77092), (514, 77083), (524, 77059), (538, 76999), (612, 76867), (614, 76861), (638, 76798), (643, 76777), (645, 76771), (666, 76696), (667, 76690), (670, 76669), (685, 76609), (695, 76567), (701, 76543), (704, 76531),

Gene: BigMack_25 Start: 20560, Stop: 21960, Start Num: 215

Candidate Starts for BigMack_25:

(Start: 215 @20560 has 84 MA's), (244, 20623), (295, 20728), (297, 20731), (332, 20815), (358, 20848), (375, 20899), (379, 20905), (402, 20986), (403, 20989), (405, 20995), (413, 21031), (418, 21049), (419, 21052), (424, 21085), (432, 21106), (440, 21124), (491, 21238), (499, 21265), (511, 21295), (513, 21304), (520, 21331), (530, 21364), (534, 21379), (541, 21406), (564, 21439), (598, 21511), (618, 21574), (624, 21592), (639, 21625), (653, 21694), (657, 21700), (664, 21715), (665, 21718), (670, 21751), (685, 21811), (691, 21838), (721, 21928),

Gene: BigMama_51 Start: 39745, Stop: 41688, Start Num: 43

Candidate Starts for BigMama_51:

(Start: 43 @39745 has 59 MA's), (59, 39772), (82, 39844), (94, 39898), (110, 39958), (117, 39976), (Start: 118 @39985 has 6 MA's), (138, 40036), (153, 40078), (174, 40114), (209, 40201), (252, 40294), (257, 40309), (266, 40330), (319, 40432), (337, 40465), (348, 40489), (373, 40549), (396, 40636), (416, 40711), (446, 40801), (468, 40852), (469, 40855), (491, 40945), (496, 40963), (504, 40996), (525, 41050), (529, 41062), (534, 41080), (573, 41143), (608, 41227), (648, 41344), (656, 41392), (672, 41455), (691, 41539),

Gene: BigShaq_58 Start: 52025, Stop: 50616, Start Num: 238

Candidate Starts for BigShaq_58:

(102, 52403), (115, 52352), (129, 52301), (149, 52247), (164, 52217), (Start: 172 @52184 has 2 MA's), (175, 52175), (Start: 187 @52148 has 24 MA's), (Start: 238 @52025 has 27 MA's), (253, 51980), (268, 51938), (290, 51890), (291, 51887), (293, 51881), (294, 51878), (301, 51866), (303, 51860), (321, 51824), (326, 51812), (327, 51809), (374, 51689), (378, 51671), (405, 51584), (409, 51569), (419, 51527), (430, 51476), (443, 51449), (468, 51398), (483, 51338), (489, 51335), (492, 51326), (497, 51308), (511, 51266), (526, 51221), (586, 51086), (593, 51071), (601, 51050), (648, 50969), (649, 50966), (665, 50909), (666, 50903), (668, 50891), (680, 50840), (684, 50825), (685,

50816), (694, 50777), (698, 50765), (728, 50669), (736, 50654),

Gene: BirksAndSocks_64 Start: 53856, Stop: 52324, Start Num: 187

Candidate Starts for BirksAndSocks_64:

(102, 54111), (115, 54060), (149, 53955), (164, 53925), (Start: 172 @53892 has 2 MA's), (175, 53883), (Start: 187 @53856 has 24 MA's), (253, 53688), (268, 53646), (276, 53628), (290, 53598), (294, 53586), (301, 53574), (303, 53568), (310, 53547), (378, 53379), (405, 53292), (409, 53277), (411, 53265), (419, 53235), (468, 53106), (476, 53082), (479, 53064), (483, 53046), (489, 53043), (492, 53034), (497, 53016), (526, 52929), (586, 52794), (593, 52779), (601, 52758), (648, 52677), (649, 52674), (665, 52617), (666, 52611), (668, 52599), (680, 52548), (685, 52524), (694, 52485), (698, 52473), (699, 52470), (728, 52377), (736, 52362),

Gene: BirthdayBoy_62 Start: 41143, Stop: 43056, Start Num: 43

Candidate Starts for BirthdayBoy_62:

(17, 41017), (18, 41026), (19, 41038), (26, 41071), (Start: 42 @41140 has 11 MA's), (Start: 43 @41143 has 59 MA's), (Start: 57 @41155 has 1 MA's), (68, 41203), (81, 41236), (98, 41305), (124, 41395), (134, 41422), (139, 41431), (174, 41503), (229, 41623), (254, 41686), (299, 41776), (309, 41803), (371, 41932), (377, 41956), (385, 41998), (404, 42046), (409, 42067), (413, 42088), (426, 42145), (446, 42199), (465, 42241), (480, 42301), (504, 42397), (506, 42400), (596, 42577), (617, 42628), (648, 42718), (656, 42754), (659, 42760), (671, 42814), (682, 42853), (707, 42955), (711, 42970), (718, 42991),

Gene: BiteSize_50 Start: 36701, Stop: 38755, Start Num: 48

Candidate Starts for BiteSize_50:

(Start: 48 @36701 has 13 MA's), (60, 36725), (84, 36788), (104, 36872), (113, 36914), (208, 37136), (229, 37172), (260, 37247), (278, 37286), (306, 37328), (312, 37346), (319, 37367), (325, 37379), (354, 37439), (361, 37454), (371, 37472), (387, 37550), (396, 37565), (398, 37568), (409, 37607), (413, 37628), (444, 37730), (468, 37787), (472, 37808), (474, 37811), (478, 37823), (491, 37871), (493, 37877), (506, 37925), (520, 37958), (526, 37982), (532, 38000), (538, 38030), (550, 38153), (558, 38186), (565, 38198), (573, 38213), (592, 38252), (608, 38297), (617, 38324), (646, 38408), (663, 38471), (671, 38513), (674, 38522), (676, 38531), (686, 38579), (690, 38588), (691, 38600), (697, 38615), (708, 38657),

Gene: Bloom_105 Start: 80738, Stop: 82576, Start Num: 49

Candidate Starts for Bloom_105:

(Start: 49 @80738 has 2 MA's), (73, 80819), (100, 80897), (Start: 131 @80993 has 3 MA's), (176, 81053), (189, 81083), (241, 81203), (259, 81254), (336, 81314), (423, 81653), (444, 81710), (453, 81731), (470, 81776), (494, 81833), (496, 81839), (504, 81872), (510, 81884), (515, 81896), (529, 81941), (538, 81980), (566, 82037), (569, 82043), (585, 82076), (619, 82145), (649, 82229), (678, 82346), (724, 82520), (746, 82562),

Gene: BlueNGold_166 Start: 96830, Stop: 94920, Start Num: 48

Candidate Starts for BlueNGold_166:

(Start: 48 @96830 has 13 MA's), (113, 96626), (128, 96578), (152, 96533), (180, 96452), (188, 96440), (231, 96335), (241, 96308), (330, 96203), (343, 96179), (383, 96014), (468, 95747), (470, 95738), (478, 95711), (504, 95642), (585, 95393), (617, 95327), (625, 95303), (667, 95168), (681, 95108), (698, 95036),

Gene: Bodacious_25 Start: 20580, Stop: 21974, Start Num: 215

Candidate Starts for Bodacious_25:

(Start: 215 @20580 has 84 MA's), (244, 20637), (295, 20742), (297, 20745), (332, 20829), (358, 20862), (375, 20913), (379, 20919), (402, 21000), (403, 21003), (405, 21009), (413, 21045), (418, 21063), (419, 21066), (424, 21099), (432, 21120), (491, 21252), (499, 21279), (513, 21318), (518,

21339), (520, 21345), (530, 21378), (534, 21393), (535, 21402), (560, 21447), (580, 21483), (598, 21525), (618, 21588), (624, 21606), (653, 21708), (655, 21711), (664, 21729), (665, 21732), (669, 21756), (670, 21765), (691, 21852), (721, 21942), (734, 21966),

Gene: Bogota_43 Start: 31399, Stop: 32793, Start Num: 221

Candidate Starts for Bogota_43:

(Start: 221 @31399 has 12 MA's), (Start: 223 @31402 has 2 MA's), (253, 31477), (264, 31501), (290, 31531), (295, 31546), (345, 31636), (365, 31672), (394, 31771), (399, 31780), (416, 31849), (462, 31972), (505, 32107), (515, 32134), (520, 32155), (526, 32176), (541, 32233), (564, 32266), (568, 32275), (589, 32317), (610, 32383), (618, 32407), (624, 32425), (632, 32443), (649, 32497), (653, 32527), (670, 32584), (671, 32587), (684, 32635), (693, 32674), (698, 32689), (720, 32758), (729, 32776), (734, 32785),

Gene: Boneham_63 Start: 53757, Stop: 52225, Start Num: 187

Candidate Starts for Boneham_63:

(102, 54012), (115, 53961), (149, 53856), (164, 53826), (Start: 172 @53793 has 2 MA's), (175, 53784), (Start: 187 @53757 has 24 MA's), (253, 53589), (268, 53547), (276, 53529), (290, 53499), (294, 53487), (301, 53475), (303, 53469), (310, 53448), (378, 53280), (405, 53193), (409, 53178), (411, 53166), (419, 53136), (468, 53007), (476, 52983), (479, 52965), (483, 52947), (489, 52944), (492, 52935), (497, 52917), (526, 52830), (586, 52695), (593, 52680), (601, 52659), (648, 52578), (649, 52575), (665, 52518), (666, 52512), (668, 52500), (680, 52449), (685, 52425), (694, 52386), (698, 52374), (699, 52371), (728, 52278), (736, 52263),

Gene: Bonum_76 Start: 56632, Stop: 54545, Start Num: 27

Candidate Starts for Bonum_76:

(Start: 27 @56632 has 31 MA's), (61, 56512), (Start: 78 @56467 has 1 MA's), (80, 56464), (156, 56209), (209, 56101), (239, 56047), (262, 55984), (305, 55894), (307, 55891), (314, 55867), (339, 55831), (385, 55693), (390, 55675), (396, 55666), (402, 55651), (431, 55528), (457, 55444), (468, 55417), (474, 55393), (496, 55294), (514, 55240), (532, 55186), (542, 55144), (573, 55105), (602, 55036), (608, 55003), (619, 54967), (639, 54922), (641, 54910), (656, 54850), (672, 54787), (716, 54622), (723, 54598),

Gene: Boopy_169 Start: 96841, Stop: 94931, Start Num: 48

Candidate Starts for Boopy_169:

(Start: 48 @96841 has 13 MA's), (113, 96637), (128, 96589), (152, 96544), (180, 96463), (188, 96451), (231, 96346), (241, 96319), (330, 96214), (343, 96190), (383, 96025), (468, 95758), (470, 95749), (478, 95722), (504, 95653), (585, 95404), (617, 95338), (625, 95314), (667, 95179), (681, 95119), (698, 95047),

Gene: Braxoaddie_72 Start: 53132, Stop: 51096, Start Num: 29

Candidate Starts for Braxoaddie_72:

(10, 53300), (Start: 29 @53132 has 6 MA's), (44, 53066), (61, 53024), (95, 52919), (156, 52739), (189, 52682), (209, 52631), (219, 52616), (257, 52526), (262, 52514), (305, 52421), (341, 52349), (373, 52280), (387, 52208), (409, 52151), (468, 51971), (474, 51947), (488, 51884), (496, 51848), (525, 51761), (585, 51629), (601, 51590), (602, 51587), (610, 51542), (656, 51395), (672, 51332), (683, 51290), (691, 51251), (700, 51227),

Gene: Breezic_59 Start: 51749, Stop: 50217, Start Num: 187

Candidate Starts for Breezic_59:

(102, 52004), (115, 51953), (129, 51902), (149, 51848), (164, 51818), (Start: 172 @51785 has 2 MA's), (175, 51776), (Start: 187 @51749 has 24 MA's), (253, 51581), (268, 51539), (290, 51491), (294, 51479), (301, 51467), (303, 51461), (310, 51440), (326, 51413), (378, 51272), (405, 51185), (409, 51170), (411, 51158), (419, 51128), (430, 51077), (443, 51050), (468, 50999), (483, 50939),

(489, 50936), (497, 50909), (511, 50867), (526, 50822), (586, 50687), (593, 50672), (601, 50651), (642, 50594), (648, 50570), (649, 50567), (665, 50510), (666, 50504), (667, 50498), (668, 50492), (680, 50441), (685, 50417), (694, 50378), (698, 50366), (699, 50363), (728, 50270), (736, 50255), (747, 50234),

Gene: BrotherBLo_29 Start: 22106, Stop: 23506, Start Num: 215

Candidate Starts for BrotherBLo_29:

(Start: 215 @22106 has 84 MA's), (244, 22169), (295, 22274), (332, 22361), (358, 22394), (375, 22445), (379, 22451), (402, 22532), (403, 22535), (405, 22541), (413, 22577), (418, 22595), (419, 22598), (424, 22631), (432, 22652), (440, 22670), (491, 22784), (499, 22811), (511, 22841), (513, 22850), (520, 22877), (530, 22910), (534, 22925), (560, 22979), (572, 23000), (578, 23012), (583, 23024), (653, 23240), (655, 23243), (657, 23246), (662, 23255), (664, 23261), (670, 23297), (685, 23357), (691, 23384), (721, 23474),

Gene: Buggaboo_74 Start: 57198, Stop: 55111, Start Num: 27

Candidate Starts for Buggaboo_74:

(Start: 27 @57198 has 31 MA's), (61, 57078), (Start: 78 @57033 has 1 MA's), (80, 57030), (156, 56775), (209, 56667), (239, 56613), (262, 56550), (305, 56460), (307, 56457), (314, 56433), (339, 56397), (385, 56259), (390, 56241), (396, 56232), (402, 56217), (431, 56094), (457, 56010), (468, 55983), (474, 55959), (496, 55860), (514, 55806), (532, 55752), (542, 55710), (573, 55671), (602, 55602), (608, 55569), (619, 55533), (639, 55488), (641, 55476), (656, 55416), (659, 55410), (672, 55353), (716, 55188), (723, 55164),

Gene: Butterball_62 Start: 53762, Stop: 52230, Start Num: 187

Candidate Starts for Butterball_62:

(102, 54017), (115, 53966), (149, 53861), (164, 53831), (Start: 172 @53798 has 2 MA's), (175, 53789), (Start: 187 @53762 has 24 MA's), (253, 53594), (268, 53552), (276, 53534), (290, 53504), (294, 53492), (301, 53480), (303, 53474), (310, 53453), (378, 53285), (405, 53198), (409, 53183), (411, 53171), (419, 53141), (468, 53012), (476, 52988), (479, 52970), (483, 52952), (489, 52949), (492, 52940), (497, 52922), (526, 52835), (586, 52700), (593, 52685), (601, 52664), (648, 52583), (649, 52580), (665, 52523), (666, 52517), (668, 52505), (680, 52454), (685, 52430), (694, 52391), (698, 52379), (699, 52376), (728, 52283), (736, 52268),

Gene: Butterscotch_52 Start: 39729, Stop: 41672, Start Num: 43

Candidate Starts for Butterscotch_52:

(Start: 43 @39729 has 59 MA's), (59, 39756), (82, 39828), (94, 39882), (110, 39942), (117, 39960), (Start: 118 @39969 has 6 MA's), (138, 40020), (153, 40062), (174, 40098), (209, 40185), (252, 40278), (257, 40293), (266, 40314), (319, 40416), (337, 40449), (348, 40473), (373, 40533), (396, 40620), (416, 40695), (446, 40785), (468, 40836), (469, 40839), (491, 40929), (496, 40947), (504, 40980), (525, 41034), (529, 41046), (534, 41064), (573, 41127), (608, 41211), (648, 41328), (656, 41376), (672, 41439), (691, 41523),

Gene: C3PO_72 Start: 52724, Stop: 50799, Start Num: 55

Candidate Starts for C3PO_72:

(25, 52817), (Start: 55 @52724 has 8 MA's), (105, 52553), (121, 52499), (141, 52445), (209, 52295), (280, 52139), (305, 52088), (307, 52085), (372, 51956), (373, 51953), (387, 51881), (392, 51872), (496, 51515), (504, 51482), (585, 51296), (659, 51077), (663, 51065), (667, 51047), (672, 51020), (686, 50957), (697, 50924), (717, 50852),

Gene: Camerico_63 Start: 54751, Stop: 53234, Start Num: 203

Candidate Starts for Camerico_63:

(Start: 203 @54751 has 3 MA's), (Start: 238 @54673 has 27 MA's), (244, 54655), (248, 54643), (253, 54628), (277, 54574), (290, 54556), (292, 54550), (313, 54496), (324, 54478), (353, 54418), (362,

54394), (382, 54313), (391, 54274), (404, 54247), (410, 54226), (415, 54199), (418, 54190), (468, 54058), (476, 54034), (479, 54016), (483, 53998), (491, 53989), (576, 53773), (579, 53767), (585, 53752), (605, 53701), (628, 53647), (668, 53506), (684, 53440), (685, 53431), (691, 53398),

Gene: Candle_64 Start: 47961, Stop: 49721, Start Num: 147

Candidate Starts for Candle_64:

(Start: 147 @47961 has 9 MA's), (182, 48030), (225, 48126), (231, 48135), (262, 48216), (283, 48261), (371, 48462), (384, 48510), (402, 48570), (406, 48582), (421, 48648), (458, 48771), (468, 48795), (474, 48819), (496, 49023), (504, 49056), (511, 49071), (525, 49110), (526, 49113), (529, 49122), (573, 49191), (584, 49215), (625, 49323), (656, 49446), (658, 49449), (666, 49476), (671, 49506), (673, 49512), (674, 49515), (678, 49533), (682, 49545), (718, 49680), (728, 49710),

Gene: Canowicakte_29 Start: 22165, Stop: 23559, Start Num: 215

Candidate Starts for Canowicakte_29:

(Start: 215 @22165 has 84 MA's), (244, 22222), (295, 22327), (332, 22414), (375, 22498), (378, 22501), (379, 22504), (405, 22594), (413, 22630), (415, 22639), (418, 22648), (432, 22705), (440, 22723), (462, 22756), (468, 22768), (491, 22837), (499, 22864), (508, 22888), (520, 22930), (530, 22963), (534, 22978), (535, 22987), (583, 23077), (609, 23146), (618, 23173), (624, 23191), (630, 23203), (653, 23293), (657, 23299), (662, 23308), (664, 23314), (670, 23350), (691, 23437), (710, 23488), (721, 23527), (734, 23551),

Gene: Carpal_29 Start: 22107, Stop: 23507, Start Num: 215

Candidate Starts for Carpal_29:

(Start: 215 @22107 has 84 MA's), (244, 22170), (295, 22275), (297, 22278), (332, 22362), (358, 22395), (375, 22446), (379, 22452), (402, 22533), (403, 22536), (405, 22542), (413, 22578), (418, 22596), (419, 22599), (424, 22632), (432, 22653), (440, 22671), (462, 22704), (491, 22785), (499, 22812), (511, 22842), (513, 22851), (520, 22878), (530, 22911), (534, 22926), (560, 22980), (572, 23001), (578, 23013), (583, 23025), (657, 23247), (662, 23256), (664, 23262), (670, 23298), (685, 23358), (691, 23385), (721, 23475),

Gene: CathyBurgh_58 Start: 52326, Stop: 50794, Start Num: 187

Candidate Starts for CathyBurgh_58:

(102, 52581), (115, 52530), (129, 52479), (149, 52425), (164, 52395), (Start: 172 @52362 has 2 MA's), (175, 52353), (Start: 187 @52326 has 24 MA's), (253, 52158), (268, 52116), (290, 52068), (294, 52056), (301, 52044), (303, 52038), (310, 52017), (326, 51990), (378, 51849), (405, 51762), (409, 51747), (411, 51735), (419, 51705), (430, 51654), (443, 51627), (468, 51576), (476, 51552), (479, 51534), (483, 51516), (489, 51513), (497, 51486), (511, 51444), (526, 51399), (586, 51264), (593, 51249), (601, 51228), (642, 51171), (648, 51147), (665, 51087), (666, 51081), (667, 51075), (668, 51069), (680, 51018), (685, 50994), (694, 50955), (698, 50943), (699, 50940), (728, 50847), (736, 50832), (747, 50811),

Gene: Cborch11_63 Start: 46091, Stop: 48148, Start Num: 43

Candidate Starts for Cborch11_63:

(Start: 43 @46091 has 59 MA's), (66, 46151), (67, 46154), (Start: 93 @46247 has 3 MA's), (97, 46259), (103, 46280), (142, 46403), (144, 46406), (146, 46415), (159, 46448), (165, 46469), (180, 46517), (198, 46559), (229, 46622), (239, 46643), (241, 46649), (262, 46703), (352, 46889), (354, 46901), (365, 46919), (371, 46934), (373, 46940), (468, 47258), (469, 47261), (480, 47306), (493, 47357), (496, 47369), (525, 47459), (529, 47471), (537, 47504), (558, 47528), (563, 47537), (610, 47627), (620, 47660), (654, 47771), (656, 47774), (658, 47777), (659, 47780), (668, 47816), (671, 47834), (686, 47900), (691, 47918), (750, 48095),

Gene: Cece_97 Start: 81318, Stop: 79462, Start Num: 45

Candidate Starts for Cece_97:

(Start: 45 @81318 has 1 MA's), (68, 81255), (92, 81186), (125, 81078), (176, 80991), (211, 80901), (231, 80868), (235, 80862), (259, 80790), (330, 80709), (336, 80703), (377, 80544), (416, 80400), (430, 80340), (442, 80310), (468, 80250), (470, 80241), (494, 80184), (496, 80178), (504, 80145), (510, 80133), (524, 80100), (538, 80040), (610, 79911), (612, 79908), (619, 79881), (638, 79839), (643, 79818), (667, 79731), (685, 79650), (695, 79608), (701, 79584), (718, 79527),

Gene: Charianelly_57 Start: 52738, Stop: 51197, Start Num: 172

Candidate Starts for Charianelly_57:

(102, 52957), (143, 52828), (Start: 172 @52738 has 2 MA's), (Start: 238 @52609 has 27 MA's), (253, 52564), (290, 52474), (291, 52471), (293, 52465), (303, 52444), (332, 52381), (365, 52303), (374, 52273), (378, 52255), (405, 52168), (409, 52153), (419, 52111), (445, 52030), (468, 51982), (479, 51940), (483, 51922), (489, 51919), (497, 51892), (513, 51841), (526, 51805), (539, 51754), (586, 51670), (594, 51649), (665, 51493), (666, 51487), (668, 51475), (698, 51349), (736, 51235),

Gene: Chelms_59 Start: 52169, Stop: 50760, Start Num: 238

Candidate Starts for Chelms_59:

(102, 52547), (115, 52496), (129, 52445), (149, 52391), (164, 52361), (Start: 172 @52328 has 2 MA's), (175, 52319), (Start: 187 @52292 has 24 MA's), (Start: 238 @52169 has 27 MA's), (253, 52124), (268, 52082), (290, 52034), (291, 52031), (293, 52025), (294, 52022), (301, 52010), (303, 52004), (326, 51956), (327, 51953), (374, 51833), (378, 51815), (397, 51752), (405, 51728), (409, 51713), (419, 51671), (430, 51620), (443, 51593), (468, 51542), (483, 51482), (489, 51479), (492, 51470), (497, 51452), (511, 51410), (526, 51365), (527, 51362), (586, 51230), (593, 51215), (601, 51194), (648, 51113), (649, 51110), (665, 51053), (666, 51047), (668, 51035), (680, 50984), (684, 50969), (685, 50960), (694, 50921), (698, 50909), (728, 50813), (736, 50798),

Gene: ChewChew_25 Start: 20575, Stop: 21969, Start Num: 215

Candidate Starts for ChewChew_25:

(Start: 215 @20575 has 84 MA's), (244, 20632), (295, 20737), (297, 20740), (332, 20824), (358, 20857), (375, 20908), (379, 20914), (402, 20995), (403, 20998), (405, 21004), (413, 21040), (418, 21058), (419, 21061), (424, 21094), (432, 21115), (491, 21247), (499, 21274), (513, 21313), (518, 21334), (520, 21340), (530, 21373), (534, 21388), (535, 21397), (560, 21442), (580, 21478), (598, 21520), (618, 21583), (624, 21601), (653, 21703), (655, 21706), (664, 21724), (665, 21727), (669, 21751), (670, 21760), (691, 21847), (721, 21937), (734, 21961),

Gene: ChewyVIII_83 Start: 61890, Stop: 59662, Start Num: 31

Candidate Starts for ChewyVIII_83:

(Start: 31 @61890 has 1 MA's), (121, 61581), (139, 61530), (156, 61485), (209, 61377), (239, 61323), (250, 61293), (258, 61269), (274, 61233), (285, 61212), (302, 61173), (305, 61167), (367, 60918), (387, 60777), (392, 60768), (406, 60735), (409, 60720), (422, 60666), (433, 60621), (442, 60597), (488, 60450), (491, 60432), (496, 60414), (506, 60378), (526, 60324), (532, 60306), (585, 60195), (602, 60153), (625, 60063), (656, 59958), (663, 59940), (683, 59853), (690, 59823), (691, 59814), (706, 59763), (714, 59739), (716, 59730), (723, 59706), (732, 59688),

Gene: Chill_55 Start: 39836, Stop: 41779, Start Num: 43

Candidate Starts for Chill_55:

(Start: 43 @39836 has 59 MA's), (59, 39863), (82, 39935), (94, 39989), (110, 40049), (117, 40067), (Start: 118 @40076 has 6 MA's), (138, 40127), (153, 40169), (174, 40205), (209, 40292), (252, 40385), (257, 40400), (266, 40421), (319, 40523), (337, 40556), (348, 40580), (373, 40640), (396, 40727), (416, 40802), (446, 40892), (468, 40943), (469, 40946), (491, 41036), (496, 41054), (504, 41087), (525, 41141), (529, 41153), (534, 41171), (573, 41234), (608, 41318), (648, 41435), (656, 41483), (672, 41546), (691, 41630),

Gene: Chivey_40 Start: 25169, Stop: 27076, Start Num: 51

Candidate Starts for Chivey_40:

(15, 24995), (Start: 51 @25169 has 32 MA's), (74, 25232), (86, 25253), (95, 25307), (142, 25442), (159, 25484), (184, 25529), (257, 25703), (260, 25712), (305, 25802), (320, 25844), (326, 25859), (386, 26045), (426, 26180), (429, 26192), (444, 26225), (496, 26354), (534, 26471), (649, 26744), (658, 26783), (671, 26843), (692, 26933), (701, 26963), (714, 27005), (732, 27056),

Gene: Cholula_29 Start: 22153, Stop: 23553, Start Num: 215

Candidate Starts for Cholula_29:

(Start: 215 @22153 has 84 MA's), (244, 22216), (295, 22321), (297, 22324), (332, 22408), (358, 22441), (375, 22492), (379, 22498), (402, 22579), (403, 22582), (405, 22588), (413, 22624), (418, 22642), (419, 22645), (432, 22699), (462, 22750), (491, 22831), (499, 22858), (511, 22888), (513, 22897), (520, 22924), (530, 22957), (534, 22972), (560, 23026), (572, 23047), (578, 23059), (583, 23071), (657, 23293), (662, 23302), (664, 23308), (670, 23344), (685, 23404), (691, 23431), (721, 23521),

Gene: Chridison_26 Start: 21746, Stop: 23140, Start Num: 215

Candidate Starts for Chridison_26:

(Start: 215 @21746 has 84 MA's), (244, 21803), (281, 21890), (295, 21908), (297, 21911), (332, 21995), (358, 22028), (375, 22079), (379, 22085), (394, 22145), (405, 22175), (413, 22211), (418, 22229), (432, 22286), (440, 22304), (444, 22310), (462, 22337), (491, 22418), (499, 22445), (508, 22469), (513, 22484), (520, 22511), (530, 22544), (534, 22559), (541, 22586), (609, 22727), (618, 22754), (621, 22766), (630, 22784), (644, 22826), (653, 22874), (657, 22880), (664, 22895), (665, 22898), (670, 22931), (685, 22991), (691, 23018), (713, 23075), (721, 23108), (734, 23132),

Gene: Christian_25 Start: 20576, Stop: 21970, Start Num: 215

Candidate Starts for Christian_25:

(Start: 215 @20576 has 84 MA's), (244, 20633), (295, 20738), (297, 20741), (332, 20825), (358, 20858), (379, 20915), (402, 20996), (403, 20999), (405, 21005), (413, 21041), (418, 21059), (419, 21062), (424, 21095), (432, 21116), (491, 21248), (499, 21275), (513, 21314), (518, 21335), (520, 21341), (530, 21374), (534, 21389), (535, 21398), (560, 21443), (580, 21479), (598, 21521), (618, 21584), (624, 21602), (653, 21704), (655, 21707), (664, 21725), (665, 21728), (669, 21752), (670, 21761), (691, 21848), (721, 21938), (734, 21962),

Gene: Cicada_35 Start: 23458, Stop: 24885, Start Num: 215

Candidate Starts for Cicada_35:

(Start: 215 @23458 has 84 MA's), (365, 23776), (378, 23815), (394, 23878), (409, 23923), (413, 23944), (444, 24043), (505, 24211), (520, 24259), (526, 24280), (534, 24307), (540, 24334), (560, 24364), (562, 24367), (564, 24370), (582, 24406), (612, 24484), (642, 24568), (648, 24586), (649, 24589), (670, 24676), (674, 24688), (684, 24727), (691, 24763), (694, 24769), (710, 24814), (719, 24844),

Gene: CinnamonToast_65 Start: 53852, Stop: 52284, Start Num: 172

Candidate Starts for CinnamonToast_65:

(102, 54071), (115, 54020), (143, 53942), (149, 53915), (164, 53885), (Start: 172 @53852 has 2 MA's), (175, 53843), (Start: 187 @53816 has 24 MA's), (253, 53648), (268, 53606), (276, 53588), (290, 53558), (294, 53546), (303, 53528), (326, 53480), (378, 53339), (405, 53252), (409, 53237), (411, 53225), (419, 53195), (430, 53144), (468, 53066), (476, 53042), (479, 53024), (483, 53006), (489, 53003), (492, 52994), (497, 52976), (526, 52889), (586, 52754), (593, 52739), (601, 52718), (642, 52661), (648, 52637), (649, 52634), (665, 52577), (666, 52571), (668, 52559), (680, 52508), (685, 52484), (694, 52445), (698, 52433), (699, 52430), (728, 52337), (736, 52322), (747, 52301),

Gene: CoffeeBean_72 Start: 53090, Stop: 51054, Start Num: 29

Candidate Starts for CoffeeBean_72:

(10, 53258), (Start: 29 @53090 has 6 MA's), (44, 53024), (61, 52982), (95, 52877), (156, 52697), (189, 52640), (209, 52589), (219, 52574), (257, 52484), (262, 52472), (305, 52379), (341, 52307), (373, 52238), (387, 52166), (409, 52109), (468, 51929), (474, 51905), (488, 51842), (496, 51806), (525, 51719), (585, 51587), (601, 51548), (602, 51545), (610, 51500), (656, 51353), (672, 51290), (683, 51248), (691, 51209), (700, 51185),

Gene: Commandaria_72 Start: 56463, Stop: 54385, Start Num: 27

Candidate Starts for Commandaria_72:

(Start: 27 @56463 has 31 MA's), (47, 56391), (87, 56277), (153, 56058), (156, 56049), (159, 56046), (209, 55941), (239, 55887), (262, 55824), (305, 55734), (339, 55671), (340, 55665), (385, 55533), (390, 55515), (468, 55260), (474, 55236), (496, 55134), (514, 55080), (521, 55065), (523, 55059), (542, 54984), (573, 54945), (602, 54876), (609, 54840), (610, 54837), (619, 54807), (638, 54765), (656, 54690), (672, 54627), (691, 54546), (716, 54462), (723, 54438),

Gene: Commonplace_74 Start: 46896, Stop: 45316, Start Num: 198

Candidate Starts for Commonplace_74:

(198, 46896), (Start: 218 @46845 has 1 MA's), (226, 46830), (265, 46737), (272, 46722), (293, 46692), (301, 46677), (309, 46653), (323, 46626), (348, 46581), (362, 46542), (365, 46527), (377, 46485), (387, 46431), (409, 46368), (428, 46278), (441, 46242), (467, 46185), (475, 46164), (501, 46080), (516, 46029), (541, 45936), (545, 45921), (566, 45897), (574, 45882), (576, 45879), (587, 45855), (591, 45849), (595, 45834), (621, 45750), (631, 45729), (632, 45726), (640, 45696), (642, 45693), (659, 45624), (663, 45612), (671, 45570), (673, 45564), (683, 45525), (687, 45501), (712, 45420), (725, 45378), (726, 45375),

Gene: CoolCookie_40 Start: 25941, Stop: 27848, Start Num: 51

Candidate Starts for CoolCookie_40:

(Start: 51 @25941 has 32 MA's), (74, 26004), (86, 26025), (95, 26079), (159, 26256), (184, 26301), (257, 26475), (260, 26484), (305, 26574), (326, 26631), (386, 26817), (426, 26952), (429, 26964), (444, 26997), (496, 27126), (534, 27243), (585, 27318), (656, 27552), (658, 27555), (671, 27615), (692, 27705), (701, 27735), (714, 27777), (732, 27828),

Gene: Crestdrop_40 Start: 25203, Stop: 27110, Start Num: 51

Candidate Starts for Crestdrop_40:

(15, 25029), (Start: 51 @25203 has 32 MA's), (74, 25266), (86, 25287), (95, 25341), (142, 25476), (159, 25518), (184, 25563), (257, 25737), (260, 25746), (305, 25836), (320, 25878), (326, 25893), (386, 26079), (426, 26214), (429, 26226), (444, 26259), (496, 26388), (534, 26505), (649, 26778), (658, 26817), (671, 26877), (692, 26967), (701, 26997), (714, 27039), (732, 27090),

Gene: CristinaYang_25 Start: 20580, Stop: 21974, Start Num: 215

Candidate Starts for CristinaYang_25:

(Start: 215 @20580 has 84 MA's), (244, 20637), (295, 20742), (297, 20745), (332, 20829), (358, 20862), (375, 20913), (379, 20919), (402, 21000), (403, 21003), (405, 21009), (413, 21045), (418, 21063), (419, 21066), (424, 21099), (432, 21120), (491, 21252), (499, 21279), (513, 21318), (518, 21339), (520, 21345), (530, 21378), (534, 21393), (535, 21402), (560, 21447), (580, 21483), (598, 21525), (618, 21588), (624, 21606), (653, 21708), (655, 21711), (664, 21729), (665, 21732), (669, 21756), (670, 21765), (691, 21852), (721, 21942), (734, 21966),

Gene: Crosby_42 Start: 31144, Stop: 32538, Start Num: 221

Candidate Starts for Crosby_42:

(Start: 221 @31144 has 12 MA's), (Start: 223 @31147 has 2 MA's), (253, 31222), (264, 31246), (267, 31252), (290, 31276), (295, 31291), (297, 31294), (329, 31366), (345, 31381), (365, 31417), (394, 31516), (416, 31594), (462, 31717), (505, 31852), (515, 31879), (520, 31900), (541, 31978), (564, 32011), (568, 32020), (589, 32062), (610, 32128), (612, 32131), (618, 32152), (624, 32170), (632,

32188), (649, 32242), (653, 32272), (670, 32329), (671, 32332), (684, 32380), (693, 32419), (698, 32434), (720, 32503), (729, 32521), (734, 32530),

Gene: Cruella_72 Start: 52724, Stop: 50799, Start Num: 55

Candidate Starts for Cruella_72:

(25, 52817), (Start: 55 @52724 has 8 MA's), (105, 52553), (121, 52499), (141, 52445), (209, 52295), (280, 52139), (305, 52088), (307, 52085), (372, 51956), (373, 51953), (387, 51881), (392, 51872), (496, 51515), (504, 51482), (585, 51296), (659, 51077), (663, 51065), (667, 51047), (672, 51020), (686, 50957), (697, 50924), (717, 50852),

Gene: Cuke_73 Start: 42303, Stop: 44156, Start Num: 79

Candidate Starts for Cuke_73:

(Start: 79 @42303 has 3 MA's), (111, 42423), (146, 42516), (159, 42549), (202, 42642), (206, 42651), (209, 42660), (227, 42690), (229, 42693), (252, 42750), (266, 42786), (271, 42798), (285, 42825), (295, 42849), (312, 42888), (337, 42942), (349, 42972), (354, 42990), (360, 43002), (406, 43143), (437, 43269), (465, 43326), (468, 43338), (496, 43440), (504, 43473), (511, 43488), (522, 43512), (523, 43515), (529, 43539), (538, 43578), (639, 43773), (656, 43863), (659, 43869), (667, 43899), (690, 43998), (705, 44058), (710, 44076), (715, 44088), (730, 44133), (734, 44139),

Gene: Cybele_40 Start: 25911, Stop: 27818, Start Num: 51

Candidate Starts for Cybele_40:

(Start: 51 @25911 has 32 MA's), (74, 25974), (86, 25995), (95, 26049), (159, 26226), (184, 26271), (257, 26445), (260, 26454), (305, 26544), (386, 26787), (426, 26922), (429, 26934), (444, 26967), (496, 27096), (534, 27213), (585, 27288), (656, 27522), (658, 27525), (671, 27585), (692, 27675), (701, 27705), (714, 27747), (732, 27798),

Gene: Daiboju_26 Start: 21732, Stop: 23129, Start Num: 215

Candidate Starts for Daiboju_26:

(Start: 215 @21732 has 84 MA's), (244, 21792), (281, 21879), (295, 21897), (297, 21900), (332, 21984), (340, 21990), (358, 22017), (375, 22068), (379, 22074), (389, 22125), (394, 22134), (402, 22155), (405, 22164), (413, 22200), (419, 22221), (424, 22254), (432, 22275), (440, 22293), (444, 22299), (462, 22326), (468, 22338), (473, 22353), (491, 22407), (508, 22458), (511, 22464), (513, 22473), (515, 22479), (520, 22500), (530, 22533), (534, 22548), (535, 22557), (598, 22680), (610, 22719), (618, 22743), (621, 22755), (653, 22863), (657, 22869), (662, 22878), (664, 22884), (670, 22920), (691, 23007), (721, 23097), (734, 23121),

Gene: Dakiti_60 Start: 53037, Stop: 51628, Start Num: 238

Candidate Starts for Dakiti_60:

(102, 53415), (115, 53364), (129, 53313), (149, 53259), (164, 53229), (Start: 172 @53196 has 2 MA's), (175, 53187), (Start: 187 @53160 has 24 MA's), (Start: 238 @53037 has 27 MA's), (253, 52992), (268, 52950), (290, 52902), (291, 52899), (293, 52893), (294, 52890), (301, 52878), (303, 52872), (326, 52824), (327, 52821), (374, 52701), (378, 52683), (397, 52620), (405, 52596), (409, 52581), (419, 52539), (430, 52488), (443, 52461), (468, 52410), (483, 52350), (489, 52347), (492, 52338), (497, 52320), (511, 52278), (526, 52233), (527, 52230), (586, 52098), (593, 52083), (601, 52062), (648, 51981), (649, 51978), (665, 51921), (666, 51915), (668, 51903), (680, 51852), (684, 51837), (685, 51828), (694, 51789), (698, 51777), (728, 51681), (736, 51666),

Gene: Dalilpop_75 Start: 57466, Stop: 55409, Start Num: 27

Candidate Starts for Dalilpop_75:

(Start: 27 @57466 has 31 MA's), (209, 56953), (239, 56899), (260, 56839), (262, 56836), (305, 56746), (311, 56728), (339, 56683), (340, 56677), (357, 56638), (378, 56584), (390, 56527), (431, 56380), (440, 56347), (455, 56317), (457, 56311), (468, 56284), (469, 56281), (496, 56161), (521, 56092), (525, 56074), (573, 55969), (577, 55960), (602, 55900), (610, 55861), (619, 55831), (641,

55774), (656, 55714), (666, 55684), (672, 55651), (683, 55609), (727, 55453),

Gene: Damien_61 Start: 46053, Stop: 48110, Start Num: 43

Candidate Starts for Damien_61:

(Start: 43 @46053 has 59 MA's), (66, 46113), (67, 46116), (Start: 93 @46209 has 3 MA's), (97, 46221), (103, 46242), (142, 46365), (144, 46368), (146, 46377), (159, 46410), (165, 46431), (180, 46479), (198, 46521), (229, 46584), (239, 46605), (241, 46611), (262, 46665), (352, 46851), (354, 46863), (365, 46881), (371, 46896), (373, 46902), (468, 47220), (469, 47223), (480, 47268), (493, 47319), (496, 47331), (525, 47421), (529, 47433), (537, 47466), (558, 47490), (563, 47499), (610, 47589), (620, 47622), (654, 47733), (656, 47736), (658, 47739), (659, 47742), (668, 47778), (671, 47796), (686, 47862), (691, 47880), (750, 48057),

Gene: Damp_57 Start: 51773, Stop: 50361, Start Num: 238

Candidate Starts for Damp_57:

(102, 52121), (143, 51992), (171, 51905), (Start: 172 @51902 has 2 MA's), (Start: 238 @51773 has 27 MA's), (253, 51728), (290, 51638), (291, 51635), (293, 51629), (303, 51608), (332, 51545), (374, 51437), (378, 51419), (405, 51332), (409, 51317), (419, 51275), (445, 51194), (468, 51146), (479, 51104), (483, 51086), (489, 51083), (497, 51056), (513, 51005), (526, 50969), (539, 50918), (586, 50834), (594, 50813), (665, 50657), (666, 50651), (668, 50639), (698, 50513), (736, 50399),

Gene: DannyDe_40 Start: 25175, Stop: 27082, Start Num: 51

Candidate Starts for DannyDe_40:

(15, 25001), (Start: 51 @25175 has 32 MA's), (74, 25238), (95, 25313), (142, 25448), (159, 25490), (184, 25535), (257, 25709), (260, 25718), (305, 25808), (320, 25850), (326, 25865), (386, 26051), (426, 26186), (429, 26198), (444, 26231), (496, 26360), (534, 26477), (649, 26750), (658, 26789), (671, 26849), (692, 26939), (701, 26969), (714, 27011), (732, 27062),

Gene: Darwin_73 Start: 51965, Stop: 50040, Start Num: 55

Candidate Starts for Darwin_73:

(25, 52058), (Start: 55 @51965 has 8 MA's), (105, 51794), (121, 51740), (209, 51536), (280, 51380), (305, 51329), (307, 51326), (328, 51284), (372, 51197), (373, 51194), (387, 51122), (392, 51113), (496, 50756), (504, 50723), (526, 50666), (641, 50384), (659, 50318), (663, 50306), (667, 50288), (668, 50282), (672, 50261), (686, 50198), (697, 50165), (707, 50126),

Gene: Dauntless_39 Start: 25497, Stop: 27404, Start Num: 51

Candidate Starts for Dauntless_39:

(15, 25323), (Start: 51 @25497 has 32 MA's), (74, 25560), (86, 25581), (95, 25635), (142, 25770), (150, 25797), (159, 25812), (184, 25857), (257, 26031), (260, 26040), (305, 26130), (320, 26172), (326, 26187), (386, 26373), (426, 26508), (429, 26520), (444, 26553), (496, 26682), (525, 26769), (534, 26799), (649, 27072), (658, 27111), (671, 27171), (692, 27261), (701, 27291), (714, 27333), (732, 27384),

Gene: DaviePasture_60 Start: 40751, Stop: 42664, Start Num: 43

Candidate Starts for DaviePasture_60:

(39, 40736), (Start: 42 @40748 has 11 MA's), (Start: 43 @40751 has 59 MA's), (Start: 57 @40763 has 1 MA's), (68, 40811), (98, 40913), (124, 41003), (134, 41030), (139, 41039), (174, 41111), (209, 41198), (229, 41231), (254, 41294), (262, 41312), (299, 41384), (309, 41411), (371, 41540), (377, 41564), (385, 41606), (404, 41654), (409, 41675), (413, 41696), (426, 41753), (431, 41771), (446, 41807), (465, 41849), (480, 41909), (504, 42005), (506, 42008), (617, 42236), (648, 42326), (656, 42362), (659, 42368), (671, 42422), (682, 42461), (707, 42563), (711, 42578), (718, 42599),

Gene: Delton_54 Start: 40127, Stop: 42070, Start Num: 43

Candidate Starts for Delton_54:

(28, 40058), (Start: 43 @40127 has 59 MA's), (59, 40154), (64, 40178), (82, 40226), (94, 40280), (110, 40340), (Start: 118 @40367 has 6 MA's), (138, 40418), (139, 40421), (153, 40460), (174, 40496), (209, 40583), (252, 40676), (257, 40691), (266, 40712), (319, 40814), (337, 40847), (348, 40871), (373, 40931), (396, 41018), (416, 41093), (446, 41183), (468, 41234), (469, 41237), (491, 41327), (496, 41345), (504, 41378), (525, 41432), (529, 41444), (534, 41462), (573, 41525), (608, 41609), (648, 41726), (656, 41774), (672, 41837), (691, 41921),

Gene: Demosthenes_55 Start: 52768, Stop: 51074, Start Num: 122

Candidate Starts for Demosthenes_55:

(Start: 118 @52780 has 6 MA's), (Start: 122 @52768 has 2 MA's), (160, 52669), (Start: 166 @52648 has 1 MA's), (192, 52582), (240, 52483), (253, 52447), (261, 52423), (265, 52414), (268, 52405), (290, 52357), (301, 52333), (321, 52291), (327, 52276), (332, 52261), (360, 52204), (361, 52201), (376, 52141), (377, 52138), (397, 52072), (399, 52069), (409, 52033), (410, 52030), (413, 52012), (415, 52003), (419, 51991), (429, 51943), (445, 51910), (456, 51886), (468, 51862), (476, 51838), (497, 51772), (526, 51673), (585, 51541), (586, 51538), (629, 51472), (648, 51421), (649, 51418), (665, 51361), (668, 51343), (694, 51226), (695, 51223), (699, 51211), (736, 51112), (747, 51091),

Gene: Diabla_63 Start: 53692, Stop: 52283, Start Num: 238

Candidate Starts for Diabla_63:

(102, 54070), (115, 54019), (149, 53914), (164, 53884), (Start: 172 @53851 has 2 MA's), (175, 53842), (Start: 187 @53815 has 24 MA's), (Start: 238 @53692 has 27 MA's), (253, 53647), (268, 53605), (290, 53557), (291, 53554), (293, 53548), (294, 53545), (303, 53527), (310, 53506), (326, 53479), (374, 53356), (378, 53338), (405, 53251), (409, 53236), (430, 53143), (468, 53065), (476, 53041), (483, 53005), (489, 53002), (497, 52975), (511, 52933), (526, 52888), (532, 52870), (561, 52804), (586, 52753), (593, 52738), (601, 52717), (642, 52660), (649, 52633), (665, 52576), (666, 52570), (668, 52558), (680, 52507), (685, 52483), (694, 52444), (698, 52432), (699, 52429), (728, 52336), (736, 52321), (747, 52300),

Gene: Djokovic_50 Start: 36614, Stop: 38668, Start Num: 48

Candidate Starts for Djokovic_50:

(Start: 48 @36614 has 13 MA's), (60, 36638), (84, 36701), (104, 36785), (113, 36827), (208, 37049), (229, 37085), (260, 37160), (278, 37199), (306, 37241), (312, 37259), (319, 37280), (325, 37292), (354, 37352), (361, 37367), (371, 37385), (387, 37463), (396, 37478), (398, 37481), (409, 37520), (413, 37541), (444, 37643), (468, 37700), (472, 37721), (474, 37724), (478, 37736), (491, 37784), (493, 37790), (506, 37838), (520, 37871), (526, 37895), (532, 37913), (538, 37943), (550, 38066), (558, 38099), (565, 38111), (573, 38126), (592, 38165), (608, 38210), (617, 38237), (646, 38321), (663, 38384), (671, 38426), (674, 38435), (676, 38444), (686, 38492), (690, 38501), (691, 38513), (697, 38528), (708, 38570),

Gene: DocB7_048 Start: 43676, Stop: 42174, Start Num: 203

Candidate Starts for DocB7_048:

(Start: 203 @43676 has 3 MA's), (244, 43580), (253, 43553), (265, 43520), (275, 43496), (290, 43466), (324, 43391), (362, 43310), (365, 43295), (396, 43184), (404, 43163), (413, 43124), (464, 42986), (468, 42974), (469, 42971), (476, 42950), (501, 42872), (526, 42812), (585, 42677), (586, 42674), (611, 42623), (623, 42602), (634, 42575), (650, 42509), (661, 42482), (664, 42473), (668, 42452), (676, 42416), (685, 42377), (701, 42311), (740, 42215),

Gene: DoobyDoo_59 Start: 39773, Stop: 41686, Start Num: 43

Candidate Starts for DoobyDoo_59:

(Start: 42 @39770 has 11 MA's), (Start: 43 @39773 has 59 MA's), (Start: 57 @39785 has 1 MA's), (68, 39833), (81, 39866), (98, 39935), (124, 40025), (134, 40052), (139, 40061), (174, 40133), (209, 40220), (229, 40253), (254, 40316), (299, 40406), (371, 40562), (377, 40586), (385, 40628), (404, 40676), (409, 40697), (413, 40718), (426, 40775), (446, 40829), (465, 40871), (480, 40931), (504,

41027), (506, 41030), (596, 41207), (617, 41258), (648, 41348), (656, 41384), (659, 41390), (668, 41426), (671, 41444), (682, 41483), (707, 41585), (711, 41600), (718, 41621),

Gene: DrLupo_67 Start: 46291, Stop: 48255, Start Num: 41

Candidate Starts for DrLupo_67:

(13, 46123), (20, 46198), (22, 46204), (Start: 41 @46291 has 1 MA's), (56, 46312), (Start: 57 @46318 has 1 MA's), (58, 46324), (66, 46357), (75, 46390), (91, 46438), (95, 46459), (103, 46486), (108, 46510), (127, 46573), (132, 46591), (142, 46609), (146, 46621), (159, 46654), (180, 46696), (189, 46717), (191, 46720), (198, 46738), (212, 46771), (216, 46777), (229, 46801), (231, 46804), (259, 46876), (365, 47095), (371, 47110), (387, 47188), (413, 47266), (431, 47341), (442, 47374), (491, 47536), (493, 47542), (529, 47668), (530, 47671), (563, 47707), (566, 47713), (610, 47797), (620, 47830), (654, 47941), (656, 47944), (660, 47953), (668, 47986), (672, 48007), (683, 48049), (700, 48112), (706, 48139), (737, 48223),

Gene: DrRobert_25 Start: 20576, Stop: 21970, Start Num: 215

Candidate Starts for DrRobert_25:

(Start: 215 @20576 has 84 MA's), (244, 20633), (295, 20738), (297, 20741), (332, 20825), (358, 20858), (375, 20909), (379, 20915), (402, 20996), (403, 20999), (405, 21005), (413, 21041), (418, 21059), (419, 21062), (424, 21095), (432, 21116), (491, 21248), (499, 21275), (513, 21314), (518, 21335), (520, 21341), (530, 21374), (534, 21389), (535, 21398), (560, 21443), (580, 21479), (598, 21521), (618, 21584), (624, 21602), (653, 21704), (655, 21707), (664, 21725), (665, 21728), (669, 21752), (670, 21761), (691, 21848), (721, 21938), (734, 21962),

Gene: DreamTeam_25 Start: 20615, Stop: 22009, Start Num: 215

Candidate Starts for DreamTeam_25:

(Start: 215 @20615 has 84 MA's), (244, 20672), (295, 20777), (297, 20780), (332, 20864), (358, 20897), (378, 20951), (379, 20954), (405, 21044), (413, 21080), (419, 21101), (424, 21134), (432, 21155), (491, 21287), (499, 21314), (513, 21353), (520, 21380), (530, 21413), (534, 21428), (535, 21437), (560, 21482), (580, 21518), (610, 21599), (618, 21623), (624, 21641), (630, 21653), (649, 21713), (651, 21737), (653, 21743), (655, 21746), (664, 21764), (665, 21767), (669, 21791), (670, 21800), (691, 21887), (710, 21938), (721, 21977),

Gene: Dryad_74 Start: 51068, Stop: 49182, Start Num: 43

Candidate Starts for Dryad_74:

(28, 51137), (33, 51128), (34, 51125), (Start: 43 @51068 has 59 MA's), (74, 50990), (Start: 78 @50981 has 1 MA's), (Start: 93 @50921 has 3 MA's), (99, 50900), (107, 50876), (126, 50813), (159, 50738), (174, 50714), (257, 50516), (260, 50507), (310, 50399), (373, 50243), (404, 50138), (415, 50087), (429, 50027), (467, 49940), (468, 49937), (481, 49883), (504, 49832), (509, 49823), (514, 49811), (525, 49778), (571, 49712), (584, 49685), (585, 49682), (620, 49583), (632, 49556), (658, 49466), (671, 49406), (674, 49397), (677, 49382), (691, 49322), (697, 49307), (707, 49268),

Gene: DumpTruck_58 Start: 39261, Stop: 41165, Start Num: 57

Candidate Starts for DumpTruck_58:

(16, 39126), (17, 39147), (19, 39168), (36, 39198), (Start: 42 @39243 has 11 MA's), (Start: 43 @39246 has 59 MA's), (Start: 57 @39261 has 1 MA's), (68, 39309), (81, 39342), (84, 39345), (108, 39450), (134, 39528), (139, 39537), (174, 39609), (180, 39624), (186, 39633), (227, 39726), (231, 39732), (254, 39792), (354, 40005), (371, 40038), (396, 40131), (402, 40146), (409, 40173), (413, 40194), (446, 40308), (465, 40350), (467, 40359), (478, 40398), (480, 40410), (491, 40455), (493, 40461), (504, 40506), (511, 40521), (565, 40614), (608, 40707), (656, 40860), (668, 40902), (671, 40920), (672, 40923), (707, 41061), (718, 41097), (742, 41151),

Gene: DunneganBoMo_94 Start: 76558, Stop: 78402, Start Num: 49

Candidate Starts for DunneganBoMo_94:

(Start: 49 @76558 has 2 MA's), (Start: 131 @76831 has 3 MA's), (196, 76939), (224, 77005), (252, 77074), (256, 77083), (338, 77158), (419, 77467), (428, 77512), (444, 77551), (453, 77572), (470, 77617), (494, 77674), (496, 77680), (504, 77713), (510, 77725), (515, 77737), (553, 77854), (555, 77860), (609, 77950), (619, 77983), (649, 78067), (672, 78160), (678, 78184), (721, 78352), (722, 78355),

Gene: Edmundo_94 Start: 55295, Stop: 56959, Start Num: 169

Candidate Starts for Edmundo_94:

(Start: 169 @55295 has 8 MA's), (192, 55358), (Start: 195 @55367 has 1 MA's), (234, 55454), (249, 55499), (310, 55619), (355, 55712), (364, 55736), (366, 55748), (381, 55802), (395, 55853), (407, 55889), (412, 55916), (417, 55937), (419, 55943), (428, 55985), (475, 56102), (500, 56180), (504, 56198), (521, 56249), (531, 56282), (538, 56315), (568, 56372), (582, 56399), (599, 56441), (625, 56522), (636, 56552), (642, 56570), (649, 56597), (652, 56624), (674, 56699), (681, 56726), (684, 56738), (701, 56807), (703, 56816), (704, 56819), (715, 56852), (728, 56888), (736, 56903), (745, 56918), (749, 56939),

Gene: Eggsie_58 Start: 51628, Stop: 50060, Start Num: 172

Candidate Starts for Eggsie_58:

(102, 51847), (129, 51745), (143, 51718), (149, 51691), (161, 51670), (164, 51661), (Start: 172 @51628 has 2 MA's), (175, 51619), (Start: 187 @51592 has 24 MA's), (Start: 238 @51469 has 27 MA's), (253, 51424), (268, 51382), (290, 51334), (291, 51331), (293, 51325), (294, 51322), (303, 51304), (310, 51283), (326, 51256), (374, 51133), (378, 51115), (405, 51028), (409, 51013), (430, 50920), (468, 50842), (476, 50818), (483, 50782), (489, 50779), (497, 50752), (511, 50710), (526, 50665), (532, 50647), (561, 50581), (586, 50530), (593, 50515), (601, 50494), (642, 50437), (649, 50410), (665, 50353), (666, 50347), (668, 50335), (680, 50284), (685, 50260), (694, 50221), (698, 50209), (699, 50206), (728, 50113), (736, 50098), (747, 50077),

Gene: Ekhein_59 Start: 51454, Stop: 49922, Start Num: 187

Candidate Starts for Ekhein_59:

(102, 51709), (115, 51658), (129, 51607), (149, 51553), (164, 51523), (Start: 172 @51490 has 2 MA's), (175, 51481), (Start: 187 @51454 has 24 MA's), (253, 51286), (268, 51244), (290, 51196), (294, 51184), (301, 51172), (303, 51166), (310, 51145), (326, 51118), (378, 50977), (405, 50890), (409, 50875), (411, 50863), (419, 50833), (430, 50782), (443, 50755), (468, 50704), (479, 50662), (483, 50644), (489, 50641), (497, 50614), (511, 50572), (526, 50527), (586, 50392), (593, 50377), (601, 50356), (642, 50299), (648, 50275), (649, 50272), (665, 50215), (666, 50209), (667, 50203), (668, 50197), (680, 50146), (685, 50122), (694, 50083), (698, 50071), (699, 50068), (728, 49975), (736, 49960), (747, 49939),

Gene: Emianna_72 Start: 56707, Stop: 54641, Start Num: 27

Candidate Starts for Emianna_72:

(1, 57205), (4, 57004), (6, 56911), (7, 56899), (9, 56881), (Start: 27 @56707 has 31 MA's), (Start: 69 @56569 has 2 MA's), (76, 56545), (139, 56341), (156, 56296), (209, 56188), (260, 56074), (262, 56071), (305, 55981), (307, 55978), (339, 55918), (385, 55780), (390, 55762), (402, 55738), (431, 55615), (468, 55510), (496, 55384), (514, 55330), (567, 55204), (573, 55195), (584, 55171), (608, 55099), (610, 55093), (619, 55063), (641, 55006), (656, 54946), (672, 54883), (691, 54802),

Gene: Ennea_79 Start: 57918, Stop: 55861, Start Num: 27

Candidate Starts for Ennea_79:

(5, 58206), (8, 58098), (Start: 27 @57918 has 31 MA's), (146, 57543), (212, 57402), (239, 57351), (260, 57291), (262, 57288), (296, 57216), (305, 57198), (339, 57135), (340, 57129), (353, 57102), (378, 57036), (385, 56997), (390, 56979), (402, 56955), (431, 56832), (440, 56799), (468, 56736), (496, 56613), (521, 56544), (525, 56526), (573, 56421), (577, 56412), (602, 56352), (608, 56319), (610, 56313), (619, 56283), (641, 56226), (656, 56166), (666, 56136), (672, 56103), (716, 55938),

Gene: Erk16_52 Start: 39875, Stop: 41818, Start Num: 43

Candidate Starts for Erk16_52:

(32, 39812), (Start: 43 @39875 has 59 MA's), (59, 39902), (82, 39974), (94, 40028), (110, 40088), (Start: 118 @40115 has 6 MA's), (138, 40166), (153, 40208), (174, 40244), (209, 40331), (252, 40424), (257, 40439), (266, 40460), (319, 40562), (337, 40595), (348, 40619), (373, 40679), (396, 40766), (416, 40841), (446, 40931), (468, 40982), (469, 40985), (491, 41075), (496, 41093), (504, 41126), (529, 41192), (534, 41210), (573, 41273), (608, 41357), (648, 41474), (656, 41522), (672, 41585), (691, 41669),

Gene: Erudite_39 Start: 25497, Stop: 27404, Start Num: 51

Candidate Starts for Erudite_39:

(15, 25323), (Start: 51 @25497 has 32 MA's), (74, 25560), (86, 25581), (95, 25635), (142, 25770), (150, 25797), (159, 25812), (184, 25857), (257, 26031), (260, 26040), (305, 26130), (320, 26172), (326, 26187), (386, 26373), (426, 26508), (429, 26520), (444, 26553), (496, 26682), (525, 26769), (534, 26799), (649, 27072), (658, 27111), (671, 27171), (692, 27261), (701, 27291), (714, 27333), (732, 27384),

Gene: Erutan_60 Start: 40423, Stop: 42336, Start Num: 43

Candidate Starts for Erutan_60:

(17, 40297), (18, 40306), (19, 40318), (26, 40351), (Start: 42 @40420 has 11 MA's), (Start: 43 @40423 has 59 MA's), (Start: 57 @40435 has 1 MA's), (68, 40483), (81, 40516), (124, 40675), (134, 40702), (139, 40711), (174, 40783), (209, 40870), (229, 40903), (254, 40966), (299, 41056), (309, 41083), (371, 41212), (377, 41236), (385, 41278), (404, 41326), (409, 41347), (413, 41368), (426, 41425), (446, 41479), (465, 41521), (480, 41581), (504, 41677), (506, 41680), (617, 41908), (648, 41998), (656, 42034), (659, 42040), (671, 42094), (682, 42133), (707, 42235), (711, 42250), (718, 42271),

Gene: EstebanJulior_26 Start: 21743, Stop: 23140, Start Num: 215

Candidate Starts for EstebanJulior_26:

(Start: 215 @21743 has 84 MA's), (244, 21803), (295, 21908), (297, 21911), (332, 21995), (358, 22028), (375, 22079), (379, 22085), (402, 22166), (405, 22175), (413, 22211), (418, 22229), (419, 22232), (424, 22265), (432, 22286), (491, 22418), (511, 22475), (513, 22484), (518, 22505), (520, 22511), (530, 22544), (534, 22559), (564, 22619), (580, 22649), (610, 22730), (624, 22772), (639, 22805), (651, 22868), (655, 22877), (662, 22889), (664, 22895), (667, 22910), (669, 22922), (670, 22931), (691, 23018), (713, 23075), (721, 23108),

Gene: Eunoia_26 Start: 21745, Stop: 23139, Start Num: 215

Candidate Starts for Eunoia_26:

(Start: 215 @21745 has 84 MA's), (244, 21802), (281, 21889), (295, 21907), (297, 21910), (332, 21994), (358, 22027), (375, 22078), (379, 22084), (394, 22144), (405, 22174), (413, 22210), (418, 22228), (432, 22285), (440, 22303), (444, 22309), (462, 22336), (491, 22417), (499, 22444), (508, 22468), (513, 22483), (520, 22510), (530, 22543), (534, 22558), (598, 22690), (609, 22726), (618, 22753), (621, 22765), (630, 22783), (653, 22873), (657, 22879), (664, 22894), (665, 22897), (670, 22930), (685, 22990), (691, 23017), (713, 23074), (721, 23107), (734, 23131),

Gene: Exiguo_58 Start: 51466, Stop: 49934, Start Num: 187

Candidate Starts for Exiguo_58:

(102, 51721), (115, 51670), (129, 51619), (149, 51565), (164, 51535), (Start: 172 @51502 has 2 MA's), (175, 51493), (Start: 187 @51466 has 24 MA's), (253, 51298), (268, 51256), (290, 51208), (294, 51196), (301, 51184), (303, 51178), (310, 51157), (326, 51130), (378, 50989), (405, 50902), (409, 50887), (411, 50875), (419, 50845), (430, 50794), (443, 50767), (468, 50716), (479, 50674), (483, 50656), (489, 50653), (497, 50626), (511, 50584), (526, 50539), (586, 50404), (593, 50389),

(601, 50368), (642, 50311), (648, 50287), (649, 50284), (665, 50227), (666, 50221), (667, 50215), (668, 50209), (680, 50158), (685, 50134), (694, 50095), (698, 50083), (699, 50080), (728, 49987), (736, 49972), (747, 49951),

Gene: FelixAlejandro_64 Start: 54160, Stop: 52628, Start Num: 187

Candidate Starts for FelixAlejandro_64:

(102, 54415), (115, 54364), (149, 54259), (164, 54229), (Start: 172 @54196 has 2 MA's), (175, 54187), (Start: 187 @54160 has 24 MA's), (240, 54028), (253, 53992), (268, 53950), (276, 53932), (290, 53902), (294, 53890), (301, 53878), (303, 53872), (310, 53851), (378, 53683), (405, 53596), (409, 53581), (411, 53569), (419, 53539), (430, 53488), (468, 53410), (476, 53386), (479, 53368), (483, 53350), (489, 53347), (492, 53338), (497, 53320), (526, 53233), (586, 53098), (593, 53083), (601, 53062), (648, 52981), (649, 52978), (665, 52921), (666, 52915), (668, 52903), (680, 52852), (685, 52828), (694, 52789), (698, 52777), (699, 52774), (728, 52681), (736, 52666), (747, 52645),

Gene: FireCastle_33 Start: 23203, Stop: 24633, Start Num: 213

Candidate Starts for FireCastle_33:

(Start: 185 @23134 has 1 MA's), (Start: 213 @23203 has 1 MA's), (Start: 215 @23206 has 84 MA's), (365, 23524), (378, 23563), (383, 23584), (409, 23671), (413, 23692), (520, 24007), (526, 24028), (534, 24055), (540, 24082), (541, 24085), (560, 24112), (564, 24118), (582, 24154), (604, 24202), (612, 24232), (642, 24316), (649, 24337), (665, 24391), (668, 24409), (670, 24424), (674, 24436), (684, 24475), (691, 24511), (694, 24517), (698, 24529), (719, 24592), (736, 24628),

Gene: Flakey_58 Start: 52330, Stop: 50798, Start Num: 187

Candidate Starts for Flakey_58:

(102, 52585), (115, 52534), (129, 52483), (149, 52429), (164, 52399), (Start: 172 @52366 has 2 MA's), (175, 52357), (Start: 187 @52330 has 24 MA's), (253, 52162), (268, 52120), (290, 52072), (294, 52060), (301, 52048), (303, 52042), (310, 52021), (326, 51994), (378, 51853), (405, 51766), (409, 51751), (411, 51739), (419, 51709), (430, 51658), (443, 51631), (468, 51580), (479, 51538), (483, 51520), (489, 51517), (497, 51490), (511, 51448), (526, 51403), (586, 51268), (593, 51253), (601, 51232), (642, 51175), (648, 51151), (649, 51148), (665, 51091), (666, 51085), (667, 51079), (668, 51073), (680, 51022), (685, 50998), (694, 50959), (698, 50947), (699, 50944), (728, 50851), (736, 50836), (747, 50815),

Gene: Flapper_75 Start: 57019, Stop: 54962, Start Num: 27

Candidate Starts for Flapper_75:

(5, 57304), (9, 57187), (12, 57169), (Start: 27 @57019 has 31 MA's), (95, 56794), (209, 56506), (239, 56452), (252, 56416), (260, 56392), (262, 56389), (300, 56311), (305, 56299), (311, 56281), (339, 56236), (340, 56230), (357, 56191), (378, 56137), (385, 56098), (390, 56080), (431, 55933), (440, 55900), (455, 55870), (457, 55864), (468, 55837), (496, 55714), (521, 55645), (525, 55627), (573, 55522), (577, 55513), (585, 55495), (602, 55453), (610, 55414), (619, 55384), (627, 55366), (641, 55327), (656, 55267), (666, 55237), (672, 55204), (683, 55162), (727, 55006),

Gene: Float294_74 Start: 57824, Stop: 55767, Start Num: 27

Candidate Starts for Float294_74:

(8, 58004), (Start: 27 @57824 has 31 MA's), (146, 57449), (198, 57341), (212, 57308), (239, 57257), (260, 57197), (262, 57194), (296, 57122), (305, 57104), (339, 57041), (340, 57035), (353, 57008), (378, 56942), (385, 56903), (390, 56885), (402, 56861), (431, 56738), (440, 56705), (468, 56642), (496, 56519), (521, 56450), (525, 56432), (573, 56327), (602, 56258), (610, 56219), (618, 56195), (619, 56189), (641, 56132), (656, 56072), (666, 56042), (672, 56009), (716, 55844),

Gene: Fluke_29 Start: 22148, Stop: 23548, Start Num: 215

Candidate Starts for Fluke_29:

(Start: 215 @22148 has 84 MA's), (244, 22211), (295, 22316), (297, 22319), (332, 22403), (358, 22436), (375, 22487), (379, 22493), (402, 22574), (403, 22577), (405, 22583), (413, 22619), (418, 22637), (419, 22640), (424, 22673), (432, 22694), (440, 22712), (462, 22745), (491, 22826), (499, 22853), (511, 22883), (513, 22892), (520, 22919), (530, 22952), (534, 22967), (560, 23021), (572, 23042), (578, 23054), (583, 23066), (657, 23288), (662, 23297), (664, 23303), (670, 23339), (685, 23399), (691, 23426), (721, 23516),

Gene: Forza_170 Start: 96758, Stop: 94848, Start Num: 48

Candidate Starts for Forza_170:

(Start: 48 @96758 has 13 MA's), (113, 96554), (128, 96506), (152, 96461), (180, 96380), (188, 96368), (231, 96263), (241, 96236), (330, 96131), (343, 96107), (383, 95942), (468, 95675), (470, 95666), (478, 95639), (504, 95570), (585, 95321), (617, 95255), (625, 95231), (667, 95096), (681, 95036), (698, 94964),

Gene: Fowlmouth_74 Start: 44820, Stop: 46667, Start Num: 79

Candidate Starts for Fowlmouth_74:

(Start: 79 @44820 has 3 MA's), (88, 44838), (Start: 93 @44874 has 3 MA's), (106, 44925), (146, 45033), (159, 45066), (189, 45126), (206, 45168), (227, 45207), (266, 45303), (271, 45315), (285, 45342), (292, 45357), (295, 45366), (312, 45405), (317, 45420), (354, 45507), (360, 45519), (387, 45618), (390, 45624), (402, 45648), (416, 45708), (437, 45786), (451, 45813), (465, 45843), (468, 45855), (474, 45879), (494, 45951), (496, 45957), (504, 45990), (511, 46005), (522, 46029), (523, 46032), (529, 46056), (656, 46380), (660, 46389), (667, 46416), (671, 46440), (683, 46485), (691, 46527), (705, 46575), (710, 46593), (730, 46650),

Gene: Foxboro_72 Start: 56919, Stop: 54853, Start Num: 27

Candidate Starts for Foxboro_72:

(6, 57123), (7, 57111), (9, 57093), (Start: 27 @56919 has 31 MA's), (Start: 69 @56781 has 2 MA's), (76, 56757), (139, 56553), (156, 56508), (209, 56400), (260, 56286), (262, 56283), (305, 56193), (307, 56190), (339, 56130), (385, 55992), (390, 55974), (402, 55950), (431, 55827), (468, 55722), (496, 55596), (514, 55542), (567, 55416), (573, 55407), (584, 55383), (608, 55311), (610, 55305), (619, 55275), (641, 55218), (656, 55158), (672, 55095), (691, 55014),

Gene: FreddieHg_40 Start: 25185, Stop: 27092, Start Num: 51

Candidate Starts for FreddieHg_40:

(15, 25011), (Start: 51 @25185 has 32 MA's), (74, 25248), (86, 25269), (95, 25323), (142, 25458), (159, 25500), (184, 25545), (257, 25719), (260, 25728), (305, 25818), (320, 25860), (326, 25875), (386, 26061), (426, 26196), (429, 26208), (444, 26241), (496, 26370), (534, 26487), (649, 26760), (658, 26799), (671, 26859), (692, 26949), (701, 26979), (714, 27021), (732, 27072),

Gene: Frizzle_36 Start: 32091, Stop: 30688, Start Num: 223

Candidate Starts for Frizzle_36:

(133, 32331), (135, 32328), (173, 32217), (Start: 223 @32091 has 2 MA's), (253, 32016), (264, 31992), (265, 31989), (290, 31959), (291, 31956), (344, 31845), (378, 31770), (379, 31767), (383, 31749), (389, 31716), (390, 31713), (402, 31686), (409, 31662), (414, 31635), (462, 31509), (465, 31506), (505, 31383), (507, 31380), (516, 31350), (517, 31347), (539, 31263), (568, 31218), (624, 31071), (638, 31041), (639, 31038), (694, 30819), (705, 30777),

Gene: Fulcrum_60 Start: 40439, Stop: 42352, Start Num: 43

Candidate Starts for Fulcrum_60:

(17, 40313), (18, 40322), (19, 40334), (26, 40367), (Start: 42 @40436 has 11 MA's), (Start: 43 @40439 has 59 MA's), (Start: 57 @40451 has 1 MA's), (68, 40499), (81, 40532), (98, 40601), (124, 40691), (134, 40718), (139, 40727), (174, 40799), (229, 40919), (254, 40982), (299, 41072), (309, 41099), (371, 41228), (377, 41252), (385, 41294), (396, 41321), (404, 41342), (409, 41363), (413,

41384), (426, 41441), (431, 41459), (446, 41495), (465, 41537), (480, 41597), (504, 41693), (506, 41696), (617, 41924), (648, 42014), (656, 42050), (659, 42056), (671, 42110), (682, 42149), (707, 42251), (711, 42266), (718, 42287),

Gene: Fury_82 Start: 56141, Stop: 54093, Start Num: 27

Candidate Starts for Fury_82:

(Start: 27 @56141 has 31 MA's), (72, 55988), (83, 55973), (103, 55892), (146, 55769), (156, 55739), (209, 55631), (229, 55598), (250, 55547), (262, 55514), (305, 55424), (317, 55391), (339, 55361), (372, 55286), (390, 55205), (409, 55154), (431, 55058), (440, 55025), (457, 54989), (468, 54962), (494, 54845), (496, 54839), (521, 54770), (525, 54752), (529, 54740), (602, 54578), (610, 54545), (619, 54515), (625, 54500), (641, 54458), (672, 54335), (691, 54254), (700, 54230), (716, 54170),

Gene: GMA2_64 Start: 67776, Stop: 65812, Start Num: 49

Candidate Starts for GMA2_64:

(Start: 49 @67776 has 2 MA's), (92, 67644), (180, 67386), (231, 67269), (235, 67263), (241, 67242), (257, 67197), (330, 67137), (343, 67113), (356, 67077), (369, 67011), (377, 66972), (388, 66918), (409, 66864), (467, 66684), (470, 66672), (504, 66576), (513, 66558), (527, 66504), (558, 66342), (625, 66198), (659, 66093), (672, 66036), (681, 66003), (718, 65859),

Gene: GMA3_58 Start: 50868, Stop: 49351, Start Num: 203

Candidate Starts for GMA3_58:

(112, 51117), (116, 51111), (140, 51039), (Start: 203 @50868 has 3 MA's), (244, 50772), (253, 50745), (261, 50727), (265, 50718), (277, 50691), (290, 50673), (303, 50643), (313, 50613), (324, 50592), (332, 50571), (365, 50493), (374, 50463), (377, 50448), (382, 50427), (410, 50334), (418, 50298), (430, 50244), (468, 50166), (489, 50103), (497, 50076), (502, 50061), (503, 50052), (530, 49989), (539, 49950), (574, 49890), (584, 49869), (585, 49866), (586, 49863), (605, 49815), (656, 49653), (668, 49611), (679, 49563), (694, 49497), (698, 49485),

Gene: GMA7_51 Start: 46927, Stop: 45296, Start Num: 131

Candidate Starts for GMA7_51:

(Start: 131 @46927 has 3 MA's), (138, 46915), (161, 46864), (163, 46858), (183, 46801), (253, 46660), (268, 46618), (273, 46606), (290, 46570), (291, 46567), (303, 46540), (321, 46504), (326, 46492), (332, 46477), (374, 46369), (405, 46264), (409, 46249), (445, 46126), (468, 46078), (476, 46054), (479, 46036), (497, 45988), (513, 45937), (526, 45901), (532, 45883), (586, 45766), (606, 45715), (642, 45673), (656, 45613), (668, 45571), (680, 45520), (685, 45496), (736, 45334), (747, 45313),

Gene: GOATification_60 Start: 40439, Stop: 42352, Start Num: 43

Candidate Starts for GOATification_60:

(17, 40313), (18, 40322), (19, 40334), (26, 40367), (Start: 42 @40436 has 11 MA's), (Start: 43 @40439 has 59 MA's), (Start: 57 @40451 has 1 MA's), (68, 40499), (81, 40532), (98, 40601), (124, 40691), (134, 40718), (139, 40727), (174, 40799), (229, 40919), (254, 40982), (299, 41072), (309, 41099), (371, 41228), (377, 41252), (385, 41294), (396, 41321), (404, 41342), (409, 41363), (413, 41384), (426, 41441), (431, 41459), (446, 41495), (465, 41537), (480, 41597), (504, 41693), (506, 41696), (617, 41924), (648, 42014), (656, 42050), (659, 42056), (671, 42110), (682, 42149), (707, 42251), (711, 42266), (718, 42287),

Gene: GRU1_61 Start: 48864, Stop: 46807, Start Num: 27

Candidate Starts for GRU1_61:

(9, 49032), (Start: 27 @48864 has 31 MA's), (189, 48402), (209, 48351), (260, 48237), (262, 48234), (300, 48156), (305, 48144), (311, 48126), (339, 48081), (340, 48075), (357, 48036), (378, 47982), (385, 47943), (390, 47925), (431, 47778), (440, 47745), (457, 47709), (468, 47682), (496, 47559), (521, 47490), (525, 47472), (532, 47451), (573, 47367), (602, 47298), (610, 47259), (619, 47229),

(641, 47172), (656, 47112), (666, 47082), (672, 47049), (683, 47007), (727, 46851),

Gene: GTE5_60 Start: 49067, Stop: 47640, Start Num: 262

Candidate Starts for GTE5_60:

(5, 49982), (9, 49865), (12, 49847), (Start: 27 @49697 has 31 MA's), (95, 49472), (209, 49184), (239, 49130), (252, 49094), (262, 49067), (300, 48989), (305, 48977), (311, 48959), (339, 48914), (340, 48908), (357, 48869), (378, 48815), (385, 48776), (390, 48758), (431, 48611), (440, 48578), (455, 48548), (457, 48542), (468, 48515), (496, 48392), (521, 48323), (525, 48305), (573, 48200), (577, 48191), (585, 48173), (602, 48131), (610, 48092), (619, 48062), (641, 48005), (656, 47945), (666, 47915), (672, 47882), (683, 47840), (727, 47684),

Gene: GTE7_50 Start: 46958, Stop: 45327, Start Num: 131

Candidate Starts for GTE7_50:

(Start: 131 @46958 has 3 MA's), (138, 46946), (161, 46895), (163, 46889), (183, 46832), (253, 46691), (268, 46649), (273, 46637), (290, 46601), (291, 46598), (303, 46571), (326, 46523), (332, 46508), (374, 46400), (405, 46295), (409, 46280), (445, 46157), (468, 46109), (476, 46085), (479, 46067), (497, 46019), (513, 45968), (526, 45932), (532, 45914), (586, 45797), (606, 45746), (642, 45704), (656, 45644), (668, 45602), (680, 45551), (685, 45527), (736, 45365), (747, 45344),

Gene: GTE8_60 Start: 49561, Stop: 47633, Start Num: 69

Candidate Starts for GTE8_60:

(6, 49903), (9, 49873), (14, 49798), (Start: 27 @49699 has 31 MA's), (Start: 69 @49561 has 2 MA's), (76, 49537), (156, 49288), (209, 49180), (260, 49066), (262, 49063), (305, 48973), (307, 48970), (339, 48910), (390, 48754), (396, 48745), (402, 48730), (431, 48607), (468, 48502), (474, 48478), (496, 48376), (514, 48322), (523, 48301), (573, 48187), (608, 48091), (610, 48085), (619, 48055), (636, 48016), (641, 47998), (656, 47938), (672, 47875), (691, 47794), (716, 47710),

Gene: GalacticEye_57 Start: 52570, Stop: 51158, Start Num: 238

Candidate Starts for GalacticEye_57:

(102, 52918), (143, 52789), (171, 52702), (Start: 172 @52699 has 2 MA's), (Start: 238 @52570 has 27 MA's), (253, 52525), (290, 52435), (291, 52432), (293, 52426), (303, 52405), (332, 52342), (374, 52234), (378, 52216), (405, 52129), (409, 52114), (419, 52072), (445, 51991), (468, 51943), (479, 51901), (483, 51883), (489, 51880), (497, 51853), (513, 51802), (526, 51766), (539, 51715), (586, 51631), (594, 51610), (665, 51454), (666, 51448), (668, 51436), (698, 51310), (736, 51196),

Gene: Genamy16_63 Start: 39814, Stop: 41730, Start Num: 42

Candidate Starts for Genamy16_63:

(Start: 42 @39814 has 11 MA's), (Start: 43 @39817 has 59 MA's), (Start: 57 @39829 has 1 MA's), (68, 39877), (81, 39910), (Start: 118 @40051 has 6 MA's), (124, 40069), (134, 40096), (139, 40105), (174, 40177), (229, 40297), (254, 40360), (299, 40450), (309, 40477), (371, 40606), (377, 40630), (385, 40672), (387, 40684), (396, 40699), (404, 40720), (409, 40741), (413, 40762), (426, 40819), (431, 40837), (446, 40873), (465, 40915), (480, 40975), (504, 41071), (506, 41074), (596, 41251), (617, 41302), (648, 41392), (656, 41428), (659, 41434), (671, 41488), (682, 41527), (707, 41629), (711, 41644), (718, 41665),

Gene: Ghobes_35 Start: 32092, Stop: 30689, Start Num: 223

Candidate Starts for Ghobes_35:

(133, 32332), (135, 32329), (173, 32218), (Start: 223 @32092 has 2 MA's), (253, 32017), (264, 31993), (265, 31990), (290, 31960), (291, 31957), (344, 31846), (378, 31771), (379, 31768), (389, 31717), (390, 31714), (402, 31687), (409, 31663), (414, 31636), (462, 31510), (465, 31507), (505, 31384), (507, 31381), (516, 31351), (517, 31348), (539, 31264), (568, 31219), (609, 31117), (624, 31072), (638, 31042), (639, 31039), (665, 30946), (667, 30934), (694, 30820), (705, 30778),

Gene: GiJojo_116 Start: 68346, Stop: 69914, Start Num: 218

Candidate Starts for GiJojo_116:

(Start: 218 @68346 has 1 MA's), (251, 68424), (253, 68430), (263, 68451), (265, 68457), (281, 68493), (294, 68514), (324, 68577), (326, 68580), (332, 68595), (362, 68661), (379, 68727), (380, 68736), (416, 68865), (445, 68967), (456, 68991), (461, 69003), (471, 69042), (475, 69051), (480, 69078), (502, 69141), (602, 69411), (642, 69534), (667, 69627), (669, 69639), (701, 69771), (720, 69840), (722, 69846), (747, 69894),

Gene: Gibbin_62 Start: 41245, Stop: 43161, Start Num: 42

Candidate Starts for Gibbin_62:

(17, 41122), (18, 41131), (19, 41143), (26, 41176), (39, 41233), (Start: 42 @41245 has 11 MA's), (Start: 43 @41248 has 59 MA's), (Start: 57 @41260 has 1 MA's), (68, 41308), (81, 41341), (98, 41410), (124, 41500), (134, 41527), (139, 41536), (174, 41608), (209, 41695), (229, 41728), (254, 41791), (299, 41881), (371, 42037), (377, 42061), (385, 42103), (404, 42151), (409, 42172), (413, 42193), (426, 42250), (431, 42268), (446, 42304), (465, 42346), (480, 42406), (504, 42502), (506, 42505), (617, 42733), (648, 42823), (656, 42859), (659, 42865), (671, 42919), (682, 42958), (707, 43060), (711, 43075), (718, 43096),

Gene: Gibbles_56 Start: 50443, Stop: 48953, Start Num: 201

Candidate Starts for Gibbles_56:

(Start: 201 @50443 has 5 MA's), (240, 50350), (244, 50341), (248, 50329), (253, 50314), (261, 50296), (291, 50239), (318, 50167), (320, 50164), (358, 50071), (370, 50038), (376, 50005), (377, 50002), (382, 49981), (405, 49912), (413, 49876), (435, 49789), (463, 49738), (468, 49726), (469, 49723), (478, 49693), (502, 49621), (503, 49612), (558, 49489), (561, 49483), (649, 49309), (661, 49264), (668, 49234), (741, 48982),

Gene: Gibson_70 Start: 50318, Stop: 48432, Start Num: 43

Candidate Starts for Gibson_70:

(Start: 43 @50318 has 59 MA's), (56, 50303), (74, 50240), (Start: 78 @50231 has 1 MA's), (107, 50126), (120, 50087), (126, 50063), (159, 49988), (174, 49964), (243, 49805), (257, 49766), (260, 49757), (310, 49649), (360, 49541), (404, 49388), (415, 49337), (429, 49277), (467, 49190), (468, 49187), (504, 49082), (509, 49073), (514, 49061), (571, 48962), (617, 48845), (620, 48833), (632, 48806), (658, 48716), (663, 48701), (674, 48647), (686, 48590), (718, 48482), (723, 48464),

Gene: Gilda_40 Start: 25935, Stop: 27842, Start Num: 51

Candidate Starts for Gilda_40:

(Start: 51 @25935 has 32 MA's), (74, 25998), (86, 26019), (95, 26073), (159, 26250), (184, 26295), (257, 26469), (260, 26478), (305, 26568), (326, 26625), (386, 26811), (426, 26946), (429, 26958), (444, 26991), (496, 27120), (534, 27237), (585, 27312), (656, 27546), (658, 27549), (671, 27609), (692, 27699), (701, 27729), (714, 27771), (732, 27822),

Gene: Gisselle_25 Start: 20615, Stop: 22009, Start Num: 215

Candidate Starts for Gisselle_25:

(Start: 215 @20615 has 84 MA's), (244, 20672), (295, 20777), (297, 20780), (332, 20864), (358, 20897), (378, 20951), (379, 20954), (405, 21044), (413, 21080), (419, 21101), (424, 21134), (432, 21155), (491, 21287), (499, 21314), (513, 21353), (520, 21380), (530, 21413), (534, 21428), (535, 21437), (560, 21482), (580, 21518), (610, 21599), (618, 21623), (624, 21641), (630, 21653), (649, 21713), (651, 21737), (653, 21743), (655, 21746), (664, 21764), (665, 21767), (669, 21791), (670, 21800), (691, 21887), (710, 21938), (721, 21977),

Gene: Giuseppe_53 Start: 39718, Stop: 41661, Start Num: 43

Candidate Starts for Giuseppe_53:

(Start: 43 @39718 has 59 MA's), (59, 39745), (82, 39817), (94, 39871), (110, 39931), (117, 39949), (Start: 118 @39958 has 6 MA's), (138, 40009), (153, 40051), (174, 40087), (209, 40174), (252, 40267), (257, 40282), (266, 40303), (319, 40405), (337, 40438), (348, 40462), (373, 40522), (396, 40609), (416, 40684), (446, 40774), (468, 40825), (469, 40828), (491, 40918), (496, 40936), (504, 40969), (525, 41023), (529, 41035), (534, 41053), (573, 41116), (608, 41200), (648, 41317), (656, 41365), (672, 41428), (691, 41512),

Gene: Glenn_29 Start: 22157, Stop: 23557, Start Num: 215

Candidate Starts for Glenn_29:

(Start: 215 @22157 has 84 MA's), (244, 22220), (295, 22325), (297, 22328), (332, 22412), (358, 22445), (375, 22496), (379, 22502), (402, 22583), (403, 22586), (405, 22592), (413, 22628), (418, 22646), (419, 22649), (424, 22682), (432, 22703), (440, 22721), (462, 22754), (491, 22835), (499, 22862), (511, 22892), (513, 22901), (520, 22928), (530, 22961), (534, 22976), (560, 23030), (572, 23051), (578, 23063), (583, 23075), (657, 23297), (662, 23306), (664, 23312), (670, 23348), (685, 23408), (691, 23435), (721, 23525),

Gene: Gmala1_55 Start: 48612, Stop: 47071, Start Num: 197

Candidate Starts for Gmala1_55:

(197, 48612), (244, 48507), (253, 48480), (277, 48426), (290, 48408), (313, 48348), (316, 48339), (347, 48288), (354, 48264), (360, 48252), (362, 48246), (374, 48201), (377, 48186), (382, 48165), (383, 48162), (411, 48063), (418, 48036), (445, 47952), (456, 47928), (468, 47904), (478, 47871), (503, 47790), (525, 47742), (530, 47727), (571, 47634), (584, 47607), (585, 47604), (615, 47520), (629, 47484), (634, 47469), (648, 47424), (667, 47352), (668, 47346), (701, 47205), (741, 47106), (743, 47103),

Gene: GodonK_184 Start: 93693, Stop: 91774, Start Num: 53

Candidate Starts for GodonK_184:

(Start: 53 @93693 has 7 MA's), (62, 93651), (100, 93537), (124, 93462), (155, 93393), (180, 93324), (343, 93051), (351, 93033), (359, 93009), (368, 92970), (411, 92790), (431, 92706), (440, 92682), (467, 92622), (470, 92610), (478, 92583), (504, 92514), (506, 92511), (559, 92295), (569, 92277), (573, 92271), (608, 92205), (620, 92166), (625, 92154), (638, 92127), (660, 92046), (668, 92013), (672, 91992), (681, 91959), (691, 91908), (698, 91890),

Gene: Goodman_34 Start: 23371, Stop: 24798, Start Num: 215

Candidate Starts for Goodman_34:

(Start: 215 @23371 has 84 MA's), (322, 23587), (365, 23689), (378, 23728), (394, 23791), (409, 23836), (413, 23857), (444, 23956), (505, 24124), (520, 24172), (526, 24193), (534, 24220), (540, 24247), (560, 24277), (564, 24283), (582, 24319), (612, 24397), (642, 24481), (648, 24499), (649, 24502), (670, 24589), (674, 24601), (684, 24640), (691, 24676), (694, 24682), (713, 24733), (719, 24757),

Gene: GordDuk1_59 Start: 49176, Stop: 47635, Start Num: 197

Candidate Starts for GordDuk1_59:

(197, 49176), (244, 49071), (253, 49044), (277, 48990), (290, 48972), (313, 48912), (316, 48903), (347, 48852), (354, 48828), (360, 48816), (362, 48810), (374, 48765), (377, 48750), (382, 48729), (383, 48726), (411, 48627), (418, 48600), (445, 48516), (456, 48492), (468, 48468), (478, 48435), (479, 48426), (497, 48378), (503, 48354), (525, 48306), (571, 48198), (584, 48171), (615, 48084), (629, 48048), (634, 48033), (648, 47988), (667, 47916), (668, 47910), (741, 47670), (743, 47667),

Gene: GordTnk2_60 Start: 49330, Stop: 47789, Start Num: 197

Candidate Starts for GordTnk2_60:

(197, 49330), (244, 49225), (253, 49198), (277, 49144), (290, 49126), (313, 49066), (316, 49057), (347, 49006), (354, 48982), (360, 48970), (362, 48964), (374, 48919), (377, 48904), (382, 48883),

(383, 48880), (411, 48781), (418, 48754), (445, 48670), (456, 48646), (468, 48622), (478, 48589), (503, 48508), (525, 48460), (571, 48352), (584, 48325), (585, 48322), (615, 48238), (629, 48202), (634, 48187), (648, 48142), (667, 48070), (668, 48064), (701, 47923), (741, 47824), (743, 47821),

Gene: Gorko_58 Start: 51458, Stop: 49926, Start Num: 187

Candidate Starts for Gorko_58:

(102, 51713), (115, 51662), (129, 51611), (149, 51557), (164, 51527), (Start: 172 @51494 has 2 MA's), (175, 51485), (Start: 187 @51458 has 24 MA's), (253, 51290), (268, 51248), (290, 51200), (294, 51188), (301, 51176), (303, 51170), (310, 51149), (326, 51122), (378, 50981), (405, 50894), (409, 50879), (411, 50867), (419, 50837), (430, 50786), (443, 50759), (468, 50708), (483, 50648), (489, 50645), (497, 50618), (511, 50576), (526, 50531), (586, 50396), (593, 50381), (601, 50360), (648, 50279), (649, 50276), (665, 50219), (666, 50213), (667, 50207), (668, 50201), (685, 50126), (694, 50087), (698, 50075), (699, 50072), (728, 49979), (736, 49964), (747, 49943),

Gene: GourdThymes_59 Start: 52332, Stop: 50800, Start Num: 187

Candidate Starts for GourdThymes_59:

(102, 52587), (115, 52536), (129, 52485), (149, 52431), (164, 52401), (Start: 172 @52368 has 2 MA's), (175, 52359), (Start: 187 @52332 has 24 MA's), (253, 52164), (268, 52122), (290, 52074), (294, 52062), (301, 52050), (303, 52044), (310, 52023), (326, 51996), (378, 51855), (405, 51768), (409, 51753), (411, 51741), (419, 51711), (430, 51660), (443, 51633), (468, 51582), (476, 51558), (479, 51540), (483, 51522), (489, 51519), (497, 51492), (511, 51450), (526, 51405), (586, 51270), (593, 51255), (601, 51234), (642, 51177), (648, 51153), (649, 51150), (665, 51093), (666, 51087), (667, 51081), (668, 51075), (680, 51024), (685, 51000), (694, 50961), (698, 50949), (699, 50946), (728, 50853), (736, 50838), (747, 50817),

Gene: GreenHearts_29 Start: 22236, Stop: 23627, Start Num: 215

Candidate Starts for GreenHearts_29:

(Start: 215 @22236 has 84 MA's), (255, 22323), (295, 22395), (297, 22398), (326, 22464), (332, 22482), (340, 22488), (358, 22515), (379, 22572), (389, 22623), (405, 22662), (413, 22698), (418, 22716), (424, 22752), (432, 22773), (440, 22791), (462, 22824), (477, 22863), (491, 22905), (499, 22932), (508, 22956), (518, 22992), (520, 22998), (530, 23031), (534, 23046), (535, 23055), (560, 23100), (578, 23133), (580, 23136), (612, 23220), (618, 23241), (621, 23253), (624, 23259), (630, 23271), (653, 23361), (655, 23364), (657, 23367), (664, 23382), (665, 23385), (669, 23409), (670, 23418), (691, 23505), (710, 23556), (721, 23595), (734, 23619),

Gene: Greenhouse_29 Start: 22160, Stop: 23551, Start Num: 215

Candidate Starts for Greenhouse_29:

(177, 22058), (194, 22100), (Start: 203 @22127 has 3 MA's), (Start: 215 @22160 has 84 MA's), (255, 22247), (295, 22319), (297, 22322), (326, 22388), (332, 22406), (340, 22412), (358, 22439), (379, 22496), (389, 22547), (392, 22553), (394, 22556), (405, 22586), (413, 22622), (418, 22640), (424, 22676), (432, 22697), (440, 22715), (477, 22787), (491, 22829), (499, 22856), (508, 22880), (518, 22916), (520, 22922), (530, 22955), (534, 22970), (535, 22979), (578, 23057), (580, 23060), (612, 23144), (618, 23165), (621, 23177), (624, 23183), (630, 23195), (653, 23285), (664, 23306), (665, 23309), (669, 23333), (670, 23342), (691, 23429), (710, 23480), (721, 23519), (734, 23543),

Gene: Gretellyn_60 Start: 41292, Stop: 43208, Start Num: 42

Candidate Starts for Gretellyn_60:

(Start: 42 @41292 has 11 MA's), (Start: 43 @41295 has 59 MA's), (Start: 57 @41307 has 1 MA's), (68, 41355), (81, 41388), (98, 41457), (124, 41547), (134, 41574), (139, 41583), (174, 41655), (209, 41742), (229, 41775), (254, 41838), (299, 41928), (309, 41955), (371, 42084), (377, 42108), (385, 42150), (404, 42198), (409, 42219), (413, 42240), (426, 42297), (446, 42351), (465, 42393), (480, 42453), (504, 42549), (506, 42552), (596, 42729), (617, 42780), (648, 42870), (656, 42906), (659, 42912), (671, 42966), (682, 43005), (707, 43107), (711, 43122), (718, 43143),

Gene: GrootJr_74 Start: 56101, Stop: 54035, Start Num: 27

Candidate Starts for GrootJr_74:

(6, 56305), (7, 56293), (9, 56275), (Start: 27 @56101 has 31 MA's), (Start: 69 @55963 has 2 MA's), (76, 55939), (139, 55735), (156, 55690), (209, 55582), (260, 55468), (262, 55465), (305, 55375), (307, 55372), (339, 55312), (385, 55174), (390, 55156), (402, 55132), (431, 55009), (468, 54904), (496, 54778), (514, 54724), (567, 54598), (573, 54589), (584, 54565), (608, 54493), (610, 54487), (619, 54457), (641, 54400), (656, 54340), (672, 54277), (691, 54196),

Gene: Guillaume_57 Start: 52620, Stop: 51208, Start Num: 238

Candidate Starts for Guillaume_57:

(102, 52968), (143, 52839), (Start: 172 @52749 has 2 MA's), (Start: 238 @52620 has 27 MA's), (253, 52575), (290, 52485), (291, 52482), (293, 52476), (303, 52455), (332, 52392), (374, 52284), (378, 52266), (405, 52179), (409, 52164), (419, 52122), (445, 52041), (468, 51993), (479, 51951), (483, 51933), (489, 51930), (497, 51903), (513, 51852), (526, 51816), (539, 51765), (586, 51681), (594, 51660), (665, 51504), (666, 51498), (668, 51486), (698, 51360), (736, 51246),

Gene: Gumball_52 Start: 39923, Stop: 41866, Start Num: 43

Candidate Starts for Gumball_52:

(32, 39860), (Start: 43 @39923 has 59 MA's), (59, 39950), (82, 40022), (94, 40076), (110, 40136), (Start: 118 @40163 has 6 MA's), (138, 40214), (153, 40256), (174, 40292), (209, 40379), (252, 40472), (257, 40487), (266, 40508), (319, 40610), (337, 40643), (348, 40667), (373, 40727), (396, 40814), (416, 40889), (446, 40979), (468, 41030), (469, 41033), (491, 41123), (496, 41141), (504, 41174), (529, 41240), (534, 41258), (573, 41321), (608, 41405), (648, 41522), (656, 41570), (672, 41633), (691, 41717),

Gene: GuyFagieri_70 Start: 52937, Stop: 50901, Start Num: 29

Candidate Starts for GuyFagieri_70:

(2, 53405), (3, 53399), (Start: 29 @52937 has 6 MA's), (61, 52829), (156, 52544), (189, 52487), (209, 52436), (219, 52421), (257, 52331), (262, 52319), (274, 52292), (305, 52226), (341, 52154), (360, 52112), (373, 52085), (387, 52013), (409, 51956), (468, 51776), (474, 51752), (488, 51689), (496, 51653), (525, 51566), (585, 51434), (601, 51395), (602, 51392), (641, 51260), (656, 51200), (672, 51137), (683, 51095), (700, 51032),

Gene: Hager_41 Start: 25422, Stop: 27329, Start Num: 51

Candidate Starts for Hager_41:

(15, 25248), (Start: 51 @25422 has 32 MA's), (74, 25485), (86, 25506), (95, 25560), (150, 25722), (159, 25737), (184, 25782), (257, 25956), (260, 25965), (305, 26055), (307, 26058), (320, 26097), (326, 26112), (334, 26130), (386, 26298), (416, 26391), (420, 26406), (426, 26433), (429, 26445), (444, 26478), (496, 26607), (534, 26724), (649, 26997), (658, 27036), (671, 27096), (692, 27186), (701, 27216), (714, 27258), (732, 27309),

Gene: Hail2Pitt_56 Start: 53096, Stop: 51684, Start Num: 238

Candidate Starts for Hail2Pitt_56:

(102, 53444), (143, 53315), (171, 53228), (Start: 172 @53225 has 2 MA's), (Start: 238 @53096 has 27 MA's), (253, 53051), (290, 52961), (291, 52958), (293, 52952), (303, 52931), (332, 52868), (374, 52760), (378, 52742), (405, 52655), (409, 52640), (419, 52598), (445, 52517), (468, 52469), (479, 52427), (483, 52409), (489, 52406), (497, 52379), (513, 52328), (526, 52292), (539, 52241), (586, 52157), (594, 52136), (665, 51980), (666, 51974), (668, 51962), (698, 51836), (736, 51722),

Gene: Harambe_57 Start: 52887, Stop: 51475, Start Num: 238

Candidate Starts for Harambe_57:

(102, 53235), (143, 53106), (171, 53019), (Start: 172 @53016 has 2 MA's), (Start: 238 @52887 has 27 MA's), (253, 52842), (290, 52752), (291, 52749), (293, 52743), (303, 52722), (332, 52659), (374, 52551), (378, 52533), (405, 52446), (409, 52431), (419, 52389), (445, 52308), (468, 52260), (479, 52218), (483, 52200), (489, 52197), (497, 52170), (513, 52119), (526, 52083), (539, 52032), (586, 51948), (594, 51927), (665, 51771), (666, 51765), (668, 51753), (698, 51627), (736, 51513),

Gene: Haunter_40 Start: 25327, Stop: 27234, Start Num: 51

Candidate Starts for Haunter_40:

(Start: 51 @25327 has 32 MA's), (74, 25390), (86, 25411), (95, 25465), (108, 25507), (159, 25642), (184, 25687), (257, 25861), (260, 25870), (305, 25960), (326, 26017), (386, 26203), (426, 26338), (429, 26350), (444, 26383), (465, 26428), (496, 26512), (534, 26629), (649, 26902), (656, 26938), (658, 26941), (671, 27001), (692, 27091), (701, 27121), (714, 27163), (732, 27214),

Gene: Hawkeye_56 Start: 39560, Stop: 41506, Start Num: 43

Candidate Starts for Hawkeye_56:

(Start: 43 @39560 has 59 MA's), (71, 39638), (92, 39707), (94, 39716), (103, 39746), (110, 39776), (Start: 118 @39803 has 6 MA's), (Start: 122 @39815 has 2 MA's), (153, 39893), (159, 39905), (209, 40016), (229, 40049), (257, 40124), (297, 40202), (310, 40232), (325, 40268), (352, 40322), (373, 40373), (406, 40487), (430, 40595), (467, 40673), (468, 40676), (474, 40700), (478, 40712), (491, 40769), (493, 40775), (496, 40787), (502, 40808), (504, 40820), (521, 40856), (529, 40886), (534, 40904), (573, 40967), (608, 41051), (619, 41087), (639, 41132), (648, 41168), (656, 41216), (659, 41222), (672, 41279), (731, 41483), (734, 41489), (737, 41492),

Gene: HayZem_62 Start: 52710, Stop: 51079, Start Num: 131

Candidate Starts for HayZem_62:

(Start: 131 @52710 has 3 MA's), (138, 52698), (161, 52647), (163, 52641), (183, 52584), (253, 52443), (268, 52401), (273, 52389), (290, 52353), (291, 52350), (303, 52323), (321, 52287), (326, 52275), (332, 52260), (374, 52152), (405, 52047), (409, 52032), (445, 51909), (468, 51861), (476, 51837), (479, 51819), (497, 51771), (513, 51720), (526, 51684), (532, 51666), (586, 51549), (606, 51498), (642, 51456), (656, 51396), (668, 51354), (680, 51303), (685, 51279), (736, 51117), (747, 51096),

Gene: Hello_57 Start: 52849, Stop: 51437, Start Num: 238

Candidate Starts for Hello_57:

(102, 53197), (143, 53068), (171, 52981), (Start: 172 @52978 has 2 MA's), (Start: 238 @52849 has 27 MA's), (253, 52804), (290, 52714), (291, 52711), (293, 52705), (303, 52684), (332, 52621), (374, 52513), (378, 52495), (405, 52408), (409, 52393), (419, 52351), (445, 52270), (468, 52222), (479, 52180), (483, 52162), (489, 52159), (497, 52132), (513, 52081), (526, 52045), (539, 51994), (586, 51910), (594, 51889), (665, 51733), (666, 51727), (668, 51715), (698, 51589), (736, 51475),

Gene: Helpful_56 Start: 40102, Stop: 42045, Start Num: 43

Candidate Starts for Helpful_56:

(28, 40033), (Start: 43 @40102 has 59 MA's), (59, 40129), (82, 40201), (94, 40255), (110, 40315), (117, 40333), (Start: 118 @40342 has 6 MA's), (138, 40393), (153, 40435), (174, 40471), (209, 40558), (252, 40651), (257, 40666), (266, 40687), (319, 40789), (337, 40822), (348, 40846), (373, 40906), (396, 40993), (416, 41068), (446, 41158), (468, 41209), (469, 41212), (491, 41302), (496, 41320), (504, 41353), (525, 41407), (529, 41419), (534, 41437), (573, 41500), (608, 41584), (648, 41701), (656, 41749), (672, 41812), (691, 41896),

Gene: Henococcus_42 Start: 30892, Stop: 32286, Start Num: 221

Candidate Starts for Henococcus_42:

(Start: 221 @30892 has 12 MA's), (Start: 223 @30895 has 2 MA's), (253, 30970), (264, 30994), (290, 31024), (291, 31027), (295, 31039), (345, 31129), (361, 31153), (375, 31198), (379, 31204), (394,

31264), (402, 31285), (415, 31339), (450, 31438), (462, 31465), (466, 31474), (505, 31600), (520, 31648), (526, 31669), (530, 31681), (534, 31696), (541, 31726), (564, 31759), (568, 31768), (589, 31810), (610, 31876), (612, 31879), (618, 31900), (624, 31918), (632, 31936), (649, 31990), (653, 32020), (670, 32077), (671, 32080), (684, 32128), (698, 32182), (720, 32251), (729, 32269),

Gene: Herb_26 Start: 21732, Stop: 23129, Start Num: 215

Candidate Starts for Herb_26:

(Start: 215 @21732 has 84 MA's), (244, 21792), (281, 21879), (295, 21897), (297, 21900), (332, 21984), (340, 21990), (358, 22017), (375, 22068), (379, 22074), (389, 22125), (394, 22134), (402, 22155), (405, 22164), (413, 22200), (419, 22221), (424, 22254), (432, 22275), (440, 22293), (444, 22299), (462, 22326), (468, 22338), (473, 22353), (491, 22407), (508, 22458), (511, 22464), (513, 22473), (515, 22479), (520, 22500), (530, 22533), (534, 22548), (535, 22557), (598, 22680), (610, 22719), (618, 22743), (621, 22755), (653, 22863), (657, 22869), (662, 22878), (664, 22884), (670, 22920), (691, 23007), (721, 23097), (734, 23121),

Gene: Hiddenleaf_40 Start: 25169, Stop: 27076, Start Num: 51

Candidate Starts for Hiddenleaf_40:

(15, 24995), (Start: 51 @25169 has 32 MA's), (74, 25232), (86, 25253), (95, 25307), (142, 25442), (159, 25484), (184, 25529), (257, 25703), (260, 25712), (305, 25802), (320, 25844), (326, 25859), (386, 26045), (426, 26180), (429, 26192), (444, 26225), (496, 26354), (534, 26471), (649, 26744), (658, 26783), (671, 26843), (692, 26933), (701, 26963), (714, 27005), (732, 27056),

Gene: Hollow_57 Start: 53503, Stop: 51797, Start Num: 118

Candidate Starts for Hollow_57:

(Start: 118 @53503 has 6 MA's), (Start: 122 @53491 has 2 MA's), (160, 53392), (Start: 166 @53371 has 1 MA's), (192, 53305), (240, 53206), (253, 53170), (261, 53146), (265, 53137), (268, 53128), (290, 53080), (301, 53056), (321, 53014), (327, 52999), (332, 52984), (360, 52927), (361, 52924), (376, 52864), (377, 52861), (397, 52795), (399, 52792), (409, 52756), (410, 52753), (413, 52735), (415, 52726), (419, 52714), (429, 52666), (445, 52633), (456, 52609), (468, 52585), (476, 52561), (497, 52495), (526, 52396), (585, 52264), (586, 52261), (648, 52144), (649, 52141), (665, 52084), (668, 52066), (694, 51949), (695, 51946), (699, 51934), (736, 51835), (747, 51814),

Gene: Hotorobo_59 Start: 52337, Stop: 50805, Start Num: 187

Candidate Starts for Hotorobo_59:

(102, 52592), (115, 52541), (129, 52490), (149, 52436), (164, 52406), (Start: 172 @52373 has 2 MA's), (175, 52364), (Start: 187 @52337 has 24 MA's), (253, 52169), (268, 52127), (290, 52079), (294, 52067), (301, 52055), (303, 52049), (310, 52028), (326, 52001), (378, 51860), (405, 51773), (409, 51758), (411, 51746), (419, 51716), (430, 51665), (443, 51638), (468, 51587), (483, 51527), (489, 51524), (497, 51497), (511, 51455), (526, 51410), (586, 51275), (593, 51260), (601, 51239), (648, 51158), (649, 51155), (665, 51098), (666, 51092), (667, 51086), (668, 51080), (685, 51005), (694, 50966), (698, 50954), (699, 50951), (728, 50858), (736, 50843), (747, 50822),

Gene: Htur_33 Start: 23465, Stop: 24892, Start Num: 214

Candidate Starts for Htur_33:

(200, 23426), (207, 23447), (Start: 214 @23465 has 3 MA's), (378, 23822), (394, 23885), (409, 23930), (413, 23951), (505, 24218), (520, 24266), (526, 24287), (534, 24314), (540, 24341), (541, 24344), (560, 24371), (564, 24377), (582, 24413), (612, 24491), (618, 24512), (624, 24530), (630, 24542), (653, 24626), (670, 24683), (674, 24695), (684, 24734), (691, 24770), (694, 24776),

Gene: HubbaBubba_68 Start: 51470, Stop: 49620, Start Num: 95

Candidate Starts for HubbaBubba_68:

(7, 51893), (9, 51875), (Start: 27 @51701 has 31 MA's), (95, 51470), (141, 51332), (209, 51182), (229, 51149), (260, 51068), (262, 51065), (305, 50975), (307, 50972), (339, 50912), (390, 50756), (431,

50609), (468, 50501), (474, 50477), (496, 50375), (514, 50321), (521, 50306), (542, 50225), (573, 50186), (600, 50123), (608, 50084), (610, 50078), (619, 50048), (656, 49931), (672, 49868), (686, 49805), (691, 49787), (716, 49703),

Gene: HunterDalle_26 Start: 21745, Stop: 23139, Start Num: 215

Candidate Starts for HunterDalle_26:

(Start: 215 @21745 has 84 MA's), (244, 21802), (281, 21889), (295, 21907), (297, 21910), (332, 21994), (358, 22027), (375, 22078), (379, 22084), (394, 22144), (405, 22174), (413, 22210), (418, 22228), (424, 22264), (432, 22285), (440, 22303), (444, 22309), (462, 22336), (491, 22417), (499, 22444), (508, 22468), (513, 22483), (520, 22510), (530, 22543), (534, 22558), (609, 22726), (618, 22753), (621, 22765), (630, 22783), (653, 22873), (657, 22879), (664, 22894), (665, 22897), (670, 22930), (685, 22990), (691, 23017), (713, 23074), (721, 23107), (734, 23131),

Gene: Huntingdon_29 Start: 22127, Stop: 23518, Start Num: 215

Candidate Starts for Huntingdon_29:

(Start: 215 @22127 has 84 MA's), (255, 22214), (295, 22286), (297, 22289), (326, 22355), (332, 22373), (340, 22379), (358, 22406), (379, 22463), (402, 22544), (405, 22553), (413, 22589), (418, 22607), (424, 22643), (432, 22664), (440, 22682), (462, 22715), (477, 22754), (491, 22796), (499, 22823), (508, 22847), (518, 22883), (520, 22889), (530, 22922), (534, 22937), (535, 22946), (560, 22991), (578, 23024), (580, 23027), (610, 23108), (621, 23144), (624, 23150), (630, 23162), (653, 23252), (664, 23273), (665, 23276), (669, 23300), (670, 23309), (691, 23396), (710, 23447), (721, 23486), (734, 23510),

Gene: IDyn_69 Start: 52448, Stop: 50367, Start Num: 27

Candidate Starts for IDyn_69:

(7, 52640), (9, 52622), (14, 52547), (Start: 27 @52448 has 31 MA's), (95, 52217), (141, 52079), (209, 51929), (229, 51896), (258, 51821), (260, 51815), (262, 51812), (305, 51722), (307, 51719), (339, 51659), (390, 51503), (431, 51356), (468, 51248), (474, 51224), (496, 51122), (514, 51068), (521, 51053), (542, 50972), (573, 50933), (600, 50870), (608, 50831), (610, 50825), (619, 50795), (656, 50678), (672, 50615), (686, 50552), (691, 50534), (716, 50450),

Gene: IndiRoo_34 Start: 21703, Stop: 23130, Start Num: 215

Candidate Starts for IndiRoo_34:

(204, 21682), (Start: 215 @21703 has 84 MA's), (375, 22057), (378, 22060), (383, 22081), (409, 22168), (419, 22210), (517, 22492), (520, 22504), (526, 22525), (534, 22552), (540, 22579), (541, 22582), (560, 22609), (564, 22615), (582, 22651), (618, 22750), (642, 22813), (649, 22834), (665, 22888), (670, 22921), (674, 22933), (684, 22972), (691, 23008), (694, 23014), (698, 23026), (710, 23059), (719, 23089),

Gene: Indlulamithi_65 Start: 45619, Stop: 47481, Start Num: 85

Candidate Starts for Indlulamithi_65:

(Start: 85 @45619 has 1 MA's), (89, 45634), (159, 45862), (189, 45922), (206, 45964), (225, 46000), (241, 46033), (247, 46051), (271, 46111), (279, 46129), (295, 46162), (312, 46201), (352, 46291), (358, 46312), (360, 46315), (371, 46336), (419, 46513), (437, 46582), (455, 46618), (465, 46639), (468, 46651), (484, 46717), (494, 46759), (496, 46765), (504, 46798), (511, 46813), (522, 46837), (523, 46840), (529, 46864), (532, 46873), (585, 46960), (625, 47065), (663, 47206), (686, 47314), (691, 47335), (697, 47350), (710, 47401), (730, 47458), (734, 47464), (741, 47476),

Gene: Intolerant_41 Start: 31037, Stop: 32431, Start Num: 221

Candidate Starts for Intolerant_41:

(Start: 221 @31037 has 12 MA's), (Start: 223 @31040 has 2 MA's), (253, 31115), (264, 31139), (290, 31169), (295, 31184), (345, 31274), (365, 31310), (394, 31409), (399, 31418), (416, 31487), (462, 31610), (505, 31745), (515, 31772), (520, 31793), (526, 31814), (541, 31871), (564, 31904), (568,

31913), (589, 31955), (610, 32021), (618, 32045), (624, 32063), (632, 32081), (649, 32135), (653, 32165), (670, 32222), (671, 32225), (684, 32273), (693, 32312), (698, 32327), (720, 32396), (729, 32414), (734, 32423),

Gene: JDawG_39 Start: 25586, Stop: 27493, Start Num: 51

Candidate Starts for JDawG_39:

(15, 25412), (Start: 51 @25586 has 32 MA's), (74, 25649), (86, 25670), (95, 25724), (142, 25859), (159, 25901), (184, 25946), (257, 26120), (260, 26129), (305, 26219), (320, 26261), (326, 26276), (386, 26462), (426, 26597), (429, 26609), (444, 26642), (478, 26735), (496, 26771), (526, 26861), (534, 26888), (656, 27197), (658, 27200), (671, 27260), (692, 27350), (701, 27380), (714, 27422), (732, 27473),

Gene: JackieB_42 Start: 30731, Stop: 32125, Start Num: 221

Candidate Starts for JackieB_42:

(Start: 221 @30731 has 12 MA's), (Start: 223 @30734 has 2 MA's), (253, 30809), (264, 30833), (290, 30863), (291, 30866), (295, 30878), (345, 30968), (361, 30992), (375, 31037), (379, 31043), (394, 31103), (402, 31124), (415, 31178), (450, 31277), (462, 31304), (466, 31313), (505, 31439), (520, 31487), (526, 31508), (530, 31520), (534, 31535), (541, 31565), (564, 31598), (568, 31607), (589, 31649), (612, 31718), (618, 31739), (624, 31757), (632, 31775), (649, 31829), (653, 31859), (670, 31916), (671, 31919), (684, 31967), (698, 32021), (720, 32090), (729, 32108),

Gene: Jalebi_59 Start: 41637, Stop: 43553, Start Num: 42

Candidate Starts for Jalebi_59:

(Start: 42 @41637 has 11 MA's), (Start: 43 @41640 has 59 MA's), (Start: 57 @41652 has 1 MA's), (68, 41700), (98, 41802), (124, 41892), (134, 41919), (139, 41928), (174, 42000), (229, 42120), (254, 42183), (299, 42273), (309, 42300), (371, 42429), (377, 42453), (385, 42495), (404, 42543), (409, 42564), (413, 42585), (426, 42642), (446, 42696), (465, 42738), (480, 42798), (504, 42894), (506, 42897), (596, 43074), (617, 43125), (647, 43212), (648, 43215), (656, 43251), (659, 43257), (671, 43311), (682, 43350), (707, 43452), (711, 43467), (718, 43488),

Gene: Jamemuya19_61 Start: 39419, Stop: 41335, Start Num: 42

Candidate Starts for Jamemuya19_61:

(Start: 42 @39419 has 11 MA's), (Start: 43 @39422 has 59 MA's), (Start: 57 @39434 has 1 MA's), (68, 39482), (81, 39515), (124, 39674), (134, 39701), (139, 39710), (174, 39782), (229, 39902), (254, 39965), (299, 40055), (309, 40082), (371, 40211), (377, 40235), (385, 40277), (387, 40289), (396, 40304), (404, 40325), (409, 40346), (413, 40367), (426, 40424), (431, 40442), (446, 40478), (465, 40520), (480, 40580), (504, 40676), (506, 40679), (596, 40856), (617, 40907), (648, 40997), (656, 41033), (659, 41039), (671, 41093), (682, 41132), (707, 41234), (711, 41249), (718, 41270),

Gene: Jams_57 Start: 52059, Stop: 50647, Start Num: 238

Candidate Starts for Jams_57:

(102, 52407), (143, 52278), (Start: 172 @52188 has 2 MA's), (Start: 238 @52059 has 27 MA's), (253, 52014), (290, 51924), (291, 51921), (293, 51915), (303, 51894), (332, 51831), (365, 51753), (374, 51723), (378, 51705), (405, 51618), (409, 51603), (419, 51561), (445, 51480), (468, 51432), (479, 51390), (483, 51372), (489, 51369), (497, 51342), (513, 51291), (526, 51255), (539, 51204), (586, 51120), (594, 51099), (665, 50943), (666, 50937), (668, 50925), (698, 50799), (736, 50685),

Gene: Jellybones_61 Start: 53432, Stop: 51900, Start Num: 187

Candidate Starts for Jellybones_61:

(102, 53687), (115, 53636), (143, 53558), (149, 53531), (164, 53501), (Start: 172 @53468 has 2 MA's), (175, 53459), (Start: 187 @53432 has 24 MA's), (240, 53300), (253, 53264), (268, 53222), (276, 53204), (290, 53174), (294, 53162), (303, 53144), (326, 53096), (405, 52868), (409, 52853), (411, 52841), (419, 52811), (430, 52760), (468, 52682), (476, 52658), (479, 52640), (483, 52622),

(489, 52619), (492, 52610), (497, 52592), (511, 52550), (526, 52505), (532, 52487), (586, 52370), (593, 52355), (601, 52334), (642, 52277), (648, 52253), (649, 52250), (665, 52193), (666, 52187), (668, 52175), (680, 52124), (685, 52100), (694, 52061), (698, 52049), (699, 52046), (728, 51953), (736, 51938), (747, 51917),

Gene: Jera_34 Start: 22504, Stop: 23931, Start Num: 215

Candidate Starts for Jera_34:

(200, 22462), (Start: 215 @22504 has 84 MA's), (365, 22822), (409, 22969), (413, 22990), (415, 22999), (505, 23257), (520, 23305), (526, 23326), (541, 23383), (564, 23416), (582, 23452), (612, 23530), (618, 23551), (648, 23632), (649, 23635), (670, 23722), (674, 23734), (684, 23773), (691, 23809), (694, 23815), (698, 23827), (719, 23890),

Gene: Jifall16_71 Start: 56412, Stop: 54346, Start Num: 27

Candidate Starts for Jifall16_71:

(1, 56910), (4, 56709), (6, 56616), (7, 56604), (9, 56586), (Start: 27 @56412 has 31 MA's), (Start: 69 @56274 has 2 MA's), (76, 56250), (139, 56046), (156, 56001), (209, 55893), (260, 55779), (262, 55776), (305, 55686), (307, 55683), (339, 55623), (385, 55485), (390, 55467), (402, 55443), (431, 55320), (468, 55215), (496, 55089), (514, 55035), (567, 54909), (573, 54900), (584, 54876), (608, 54804), (610, 54798), (619, 54768), (641, 54711), (656, 54651), (672, 54588), (691, 54507),

Gene: JingleBells_40 Start: 25290, Stop: 27197, Start Num: 51

Candidate Starts for JingleBells_40:

(15, 25116), (Start: 51 @25290 has 32 MA's), (74, 25353), (86, 25374), (95, 25428), (114, 25491), (142, 25563), (159, 25605), (184, 25650), (257, 25824), (260, 25833), (305, 25923), (320, 25965), (326, 25980), (386, 26166), (426, 26301), (429, 26313), (444, 26346), (496, 26475), (534, 26592), (656, 26901), (658, 26904), (671, 26964), (692, 27054), (701, 27084), (714, 27126), (732, 27177),

Gene: Joann_29 Start: 22094, Stop: 23485, Start Num: 215

Candidate Starts for Joann_29:

(Start: 215 @22094 has 84 MA's), (255, 22181), (295, 22253), (297, 22256), (326, 22322), (332, 22340), (358, 22373), (379, 22430), (389, 22481), (392, 22487), (394, 22490), (405, 22520), (413, 22556), (418, 22574), (424, 22610), (432, 22631), (440, 22649), (462, 22682), (477, 22721), (491, 22763), (499, 22790), (508, 22814), (518, 22850), (520, 22856), (530, 22889), (534, 22904), (535, 22913), (560, 22958), (572, 22979), (578, 22991), (610, 23075), (618, 23099), (621, 23111), (624, 23117), (630, 23129), (653, 23219), (657, 23225), (664, 23240), (665, 23243), (669, 23267), (670, 23276), (691, 23363), (721, 23453), (734, 23477),

Gene: Johann_34 Start: 23371, Stop: 24798, Start Num: 215

Candidate Starts for Johann_34:

(Start: 215 @23371 has 84 MA's), (322, 23587), (365, 23689), (378, 23728), (394, 23791), (409, 23836), (413, 23857), (444, 23956), (505, 24124), (520, 24172), (526, 24193), (534, 24220), (540, 24247), (560, 24277), (564, 24283), (582, 24319), (612, 24397), (642, 24481), (648, 24499), (649, 24502), (670, 24589), (674, 24601), (684, 24640), (691, 24676), (694, 24682), (713, 24733), (719, 24757),

Gene: John316_62 Start: 53495, Stop: 51963, Start Num: 187

Candidate Starts for John316_62:

(102, 53750), (115, 53699), (129, 53648), (149, 53594), (164, 53564), (Start: 172 @53531 has 2 MA's), (175, 53522), (Start: 187 @53495 has 24 MA's), (253, 53327), (268, 53285), (290, 53237), (294, 53225), (301, 53213), (303, 53207), (310, 53186), (326, 53159), (405, 52931), (409, 52916), (411, 52904), (419, 52874), (430, 52823), (443, 52796), (468, 52745), (479, 52703), (483, 52685), (489, 52682), (497, 52655), (511, 52613), (526, 52568), (586, 52433), (593, 52418), (601, 52397), (648, 52316), (649, 52313), (665, 52256), (666, 52250), (667, 52244), (668, 52238), (685, 52163),

(694, 52124), (698, 52112), (699, 52109), (728, 52016), (736, 52001), (747, 51980),

Gene: Jormungandr_57 Start: 52602, Stop: 51190, Start Num: 238

Candidate Starts for Jormungandr_57:

(102, 52950), (143, 52821), (Start: 172 @52731 has 2 MA's), (Start: 238 @52602 has 27 MA's), (253, 52557), (290, 52467), (291, 52464), (293, 52458), (303, 52437), (332, 52374), (374, 52266), (378, 52248), (405, 52161), (409, 52146), (419, 52104), (445, 52023), (468, 51975), (479, 51933), (483, 51915), (489, 51912), (497, 51885), (513, 51834), (526, 51798), (539, 51747), (586, 51663), (594, 51642), (665, 51486), (666, 51480), (668, 51468), (698, 51342), (736, 51228),

Gene: Jumbo_57 Start: 53259, Stop: 51742, Start Num: 203

Candidate Starts for Jumbo_57:

(Start: 203 @53259 has 3 MA's), (244, 53163), (248, 53151), (253, 53136), (313, 53004), (326, 52980), (327, 52977), (345, 52944), (377, 52839), (382, 52818), (404, 52746), (418, 52689), (452, 52587), (468, 52557), (491, 52488), (525, 52395), (530, 52380), (538, 52344), (558, 52311), (574, 52281), (584, 52260), (601, 52218), (605, 52206), (637, 52131), (668, 52014), (675, 51981), (685, 51939), (701, 51873), (741, 51774), (743, 51771),

Gene: Jumboset_29 Start: 22100, Stop: 23500, Start Num: 215

Candidate Starts for Jumboset_29:

(Start: 215 @22100 has 84 MA's), (244, 22163), (295, 22268), (297, 22271), (332, 22355), (358, 22388), (375, 22439), (379, 22445), (402, 22526), (403, 22529), (405, 22535), (413, 22571), (418, 22589), (419, 22592), (432, 22646), (462, 22697), (491, 22778), (499, 22805), (511, 22835), (513, 22844), (520, 22871), (530, 22904), (534, 22919), (560, 22973), (572, 22994), (578, 23006), (583, 23018), (657, 23240), (662, 23249), (664, 23255), (670, 23291), (685, 23351), (691, 23378), (721, 23468),

Gene: Kabluna_75 Start: 55961, Stop: 53874, Start Num: 27

Candidate Starts for Kabluna_75:

(Start: 27 @55961 has 31 MA's), (61, 55841), (Start: 78 @55796 has 1 MA's), (80, 55793), (156, 55538), (209, 55430), (239, 55376), (262, 55313), (305, 55223), (307, 55220), (314, 55196), (339, 55160), (385, 55022), (390, 55004), (396, 54995), (402, 54980), (431, 54857), (457, 54773), (468, 54746), (474, 54722), (496, 54623), (514, 54569), (532, 54515), (542, 54473), (573, 54434), (602, 54365), (608, 54332), (619, 54296), (639, 54251), (641, 54239), (656, 54179), (672, 54116), (716, 53951), (723, 53927),

Gene: Kalizoi_29 Start: 22099, Stop: 23499, Start Num: 215

Candidate Starts for Kalizoi_29:

(Start: 215 @22099 has 84 MA's), (244, 22162), (295, 22267), (297, 22270), (332, 22354), (358, 22387), (375, 22438), (379, 22444), (402, 22525), (403, 22528), (405, 22534), (413, 22570), (418, 22588), (419, 22591), (432, 22645), (462, 22696), (491, 22777), (499, 22804), (511, 22834), (513, 22843), (520, 22870), (530, 22903), (534, 22918), (560, 22972), (572, 22993), (578, 23005), (583, 23017), (657, 23239), (662, 23248), (664, 23254), (670, 23290), (685, 23350), (691, 23377), (721, 23467), (734, 23491), (736, 23494),

Gene: Kampe_58 Start: 50421, Stop: 48931, Start Num: 201

Candidate Starts for Kampe_58:

(Start: 201 @50421 has 5 MA's), (240, 50328), (244, 50319), (248, 50307), (253, 50292), (261, 50274), (291, 50217), (318, 50145), (320, 50142), (358, 50049), (370, 50016), (376, 49983), (377, 49980), (382, 49959), (405, 49890), (413, 49854), (435, 49767), (468, 49704), (469, 49701), (478, 49671), (502, 49599), (503, 49590), (558, 49467), (561, 49461), (637, 49329), (649, 49287), (661, 49242), (668, 49212), (741, 48960),

Gene: KandZ_52 Start: 39857, Stop: 41800, Start Num: 43

Candidate Starts for KandZ_52:

(32, 39794), (Start: 43 @39857 has 59 MA's), (59, 39884), (82, 39956), (94, 40010), (110, 40070), (Start: 118 @40097 has 6 MA's), (138, 40148), (153, 40190), (174, 40226), (209, 40313), (252, 40406), (257, 40421), (266, 40442), (319, 40544), (337, 40577), (348, 40601), (373, 40661), (396, 40748), (416, 40823), (446, 40913), (468, 40964), (469, 40967), (491, 41057), (496, 41075), (504, 41108), (529, 41174), (534, 41192), (573, 41255), (608, 41339), (648, 41456), (656, 41504), (672, 41567), (691, 41651),

Gene: Karate_39 Start: 25940, Stop: 27847, Start Num: 51

Candidate Starts for Karate_39:

(15, 25766), (Start: 51 @25940 has 32 MA's), (74, 26003), (86, 26024), (95, 26078), (150, 26240), (159, 26255), (184, 26300), (257, 26474), (260, 26483), (305, 26573), (307, 26576), (326, 26630), (386, 26816), (426, 26951), (429, 26963), (496, 27125), (534, 27242), (658, 27554), (671, 27614), (692, 27704), (701, 27734), (714, 27776), (732, 27827),

Gene: Kaseim_57 Start: 52137, Stop: 50632, Start Num: 185

Candidate Starts for Kaseim_57:

(102, 52392), (143, 52263), (Start: 172 @52173 has 2 MA's), (Start: 185 @52137 has 1 MA's), (Start: 238 @52044 has 27 MA's), (253, 51999), (290, 51909), (291, 51906), (293, 51900), (303, 51879), (332, 51816), (374, 51708), (378, 51690), (405, 51603), (409, 51588), (419, 51546), (445, 51465), (468, 51417), (479, 51375), (483, 51357), (489, 51354), (497, 51327), (513, 51276), (526, 51240), (539, 51189), (586, 51105), (594, 51084), (665, 50928), (666, 50922), (668, 50910), (698, 50784), (736, 50670),

Gene: Kate_41 Start: 25943, Stop: 27850, Start Num: 51

Candidate Starts for Kate_41:

(Start: 51 @25943 has 32 MA's), (74, 26006), (86, 26027), (95, 26081), (159, 26258), (184, 26303), (257, 26477), (260, 26486), (305, 26576), (326, 26633), (386, 26819), (426, 26954), (429, 26966), (444, 26999), (496, 27128), (534, 27245), (585, 27320), (656, 27554), (658, 27557), (671, 27617), (692, 27707), (701, 27737), (714, 27779), (732, 27830),

Gene: Katyusha_57 Start: 53319, Stop: 51616, Start Num: 118

Candidate Starts for Katyusha_57:

(Start: 118 @53319 has 6 MA's), (Start: 122 @53307 has 2 MA's), (192, 53124), (Start: 238 @53034 has 27 MA's), (240, 53025), (253, 52989), (261, 52965), (265, 52956), (268, 52947), (290, 52899), (301, 52875), (332, 52803), (335, 52800), (347, 52782), (361, 52743), (397, 52614), (409, 52575), (410, 52572), (413, 52554), (415, 52545), (419, 52533), (429, 52485), (445, 52452), (468, 52404), (476, 52380), (497, 52314), (526, 52215), (569, 52116), (574, 52107), (585, 52083), (586, 52080), (642, 51987), (648, 51963), (649, 51960), (665, 51903), (668, 51885), (694, 51768), (695, 51765), (699, 51753), (736, 51654), (747, 51633),

Gene: Kharcho_61 Start: 33998, Stop: 35899, Start Num: 96

Candidate Starts for Kharcho_61:

(70, 33905), (Start: 96 @33998 has 2 MA's), (119, 34085), (137, 34139), (157, 34190), (Start: 172 @34238 has 2 MA's), (181, 34262), (234, 34388), (237, 34397), (327, 34583), (350, 34625), (389, 34772), (400, 34793), (413, 34850), (419, 34874), (428, 34916), (439, 34952), (490, 35090), (521, 35192), (570, 35318), (582, 35342), (599, 35384), (681, 35669), (697, 35732), (704, 35762), (734, 35843), (743, 35858),

Gene: KidneyBean_72 Start: 56536, Stop: 54470, Start Num: 27

Candidate Starts for KidneyBean_72:

(1, 57034), (4, 56833), (6, 56740), (7, 56728), (9, 56710), (Start: 27 @56536 has 31 MA's), (Start: 69 @56398 has 2 MA's), (76, 56374), (139, 56170), (156, 56125), (209, 56017), (260, 55903), (262, 55900), (305, 55810), (307, 55807), (339, 55747), (385, 55609), (390, 55591), (402, 55567), (431, 55444), (468, 55339), (496, 55213), (514, 55159), (567, 55033), (573, 55024), (584, 55000), (608, 54928), (610, 54922), (619, 54892), (641, 54835), (656, 54775), (672, 54712), (691, 54631),

Gene: Kimchi1738_73 Start: 52700, Stop: 50775, Start Num: 55

Candidate Starts for Kimchi1738_73:

(25, 52793), (Start: 55 @52700 has 8 MA's), (105, 52529), (121, 52475), (209, 52271), (280, 52115), (305, 52064), (307, 52061), (328, 52019), (387, 51857), (392, 51848), (496, 51491), (504, 51458), (585, 51272), (641, 51119), (659, 51053), (663, 51041), (667, 51023), (672, 50996), (686, 50933), (697, 50900), (717, 50828),

Gene: KingBob_26 Start: 21732, Stop: 23129, Start Num: 215

Candidate Starts for KingBob_26:

(Start: 215 @21732 has 84 MA's), (244, 21792), (281, 21879), (295, 21897), (297, 21900), (332, 21984), (340, 21990), (358, 22017), (375, 22068), (379, 22074), (389, 22125), (394, 22134), (402, 22155), (405, 22164), (413, 22200), (419, 22221), (424, 22254), (432, 22275), (440, 22293), (444, 22299), (462, 22326), (468, 22338), (473, 22353), (491, 22407), (508, 22458), (511, 22464), (513, 22473), (515, 22479), (520, 22500), (530, 22533), (534, 22548), (535, 22557), (598, 22680), (610, 22719), (618, 22743), (621, 22755), (653, 22863), (657, 22869), (662, 22878), (664, 22884), (670, 22920), (691, 23007), (721, 23097), (734, 23121),

Gene: Kittykat_25 Start: 20600, Stop: 21994, Start Num: 215

Candidate Starts for Kittykat_25:

(Start: 215 @20600 has 84 MA's), (244, 20657), (295, 20762), (297, 20765), (332, 20849), (358, 20882), (378, 20936), (379, 20939), (405, 21029), (413, 21065), (419, 21086), (424, 21119), (432, 21140), (491, 21272), (499, 21299), (513, 21338), (520, 21365), (530, 21398), (534, 21413), (535, 21422), (560, 21467), (580, 21503), (610, 21584), (618, 21608), (624, 21626), (630, 21638), (649, 21698), (651, 21722), (653, 21728), (655, 21731), (664, 21749), (665, 21752), (669, 21776), (670, 21785), (691, 21872), (710, 21923), (721, 21962),

Gene: Konstantine_65 Start: 46884, Stop: 48941, Start Num: 43

Candidate Starts for Konstantine_65:

(Start: 43 @46884 has 59 MA's), (66, 46944), (67, 46947), (Start: 93 @47040 has 3 MA's), (97, 47052), (103, 47073), (142, 47196), (144, 47199), (146, 47208), (159, 47241), (165, 47262), (180, 47310), (198, 47352), (229, 47415), (239, 47436), (241, 47442), (262, 47496), (352, 47682), (354, 47694), (365, 47712), (371, 47727), (373, 47733), (468, 48051), (469, 48054), (480, 48099), (493, 48150), (496, 48162), (525, 48252), (529, 48264), (537, 48297), (558, 48321), (563, 48330), (610, 48420), (620, 48453), (654, 48564), (656, 48567), (658, 48570), (659, 48573), (671, 48627), (686, 48693), (691, 48711), (750, 48888),

Gene: Korra_30 Start: 22105, Stop: 23505, Start Num: 215

Candidate Starts for Korra_30:

(Start: 215 @22105 has 84 MA's), (244, 22168), (295, 22273), (297, 22276), (332, 22360), (358, 22393), (375, 22444), (379, 22450), (402, 22531), (403, 22534), (405, 22540), (413, 22576), (418, 22594), (419, 22597), (424, 22630), (432, 22651), (462, 22702), (491, 22783), (499, 22810), (511, 22840), (513, 22849), (520, 22876), (530, 22909), (534, 22924), (560, 22978), (572, 22999), (578, 23011), (583, 23023), (624, 23137), (657, 23245), (662, 23254), (664, 23260), (670, 23296), (685, 23356), (691, 23383), (721, 23473),

Gene: Kors_43 Start: 26688, Stop: 28622, Start Num: 54

Candidate Starts for Kors_43:

(11, 26448), (Start: 23 @26592 has 1 MA's), (Start: 50 @26682 has 3 MA's), (Start: 54 @26688 has 3 MA's), (95, 26835), (100, 26853), (103, 26862), (159, 27012), (219, 27138), (257, 27228), (260, 27237), (298, 27312), (305, 27327), (320, 27369), (331, 27399), (377, 27531), (429, 27717), (436, 27735), (444, 27750), (468, 27807), (482, 27867), (518, 27939), (579, 28077), (605, 28143), (609, 28173), (639, 28251), (658, 28329), (671, 28389), (692, 28479), (699, 28497), (733, 28605),

Gene: Kovu_95 Start: 56142, Stop: 57803, Start Num: 169

Candidate Starts for Kovu_95:

(123, 56019), (136, 56058), (Start: 169 @56142 has 8 MA's), (192, 56202), (228, 56289), (230, 56292), (310, 56463), (315, 56475), (366, 56595), (377, 56631), (383, 56655), (389, 56688), (395, 56700), (407, 56736), (408, 56742), (419, 56790), (428, 56832), (475, 56952), (495, 57015), (504, 57048), (515, 57078), (521, 57099), (531, 57132), (538, 57165), (568, 57222), (582, 57249), (599, 57291), (616, 57348), (625, 57372), (636, 57402), (642, 57420), (649, 57447), (652, 57474), (674, 57549), (681, 57576), (691, 57624), (696, 57636), (701, 57657), (703, 57666), (704, 57669), (713, 57696), (715, 57702), (721, 57729), (736, 57756), (743, 57768), (745, 57771), (747, 57777),

Gene: Krampus_40 Start: 25943, Stop: 27850, Start Num: 51

Candidate Starts for Krampus_40:

(15, 25769), (Start: 51 @25943 has 32 MA's), (74, 26006), (86, 26027), (95, 26081), (150, 26243), (159, 26258), (184, 26303), (257, 26477), (260, 26486), (305, 26576), (320, 26618), (326, 26633), (386, 26819), (426, 26954), (429, 26966), (444, 26999), (496, 27128), (534, 27245), (585, 27320), (656, 27554), (658, 27557), (671, 27617), (692, 27707), (701, 27737), (714, 27779), (732, 27830),

Gene: Kurt_72 Start: 56722, Stop: 54656, Start Num: 27

Candidate Starts for Kurt_72:

(1, 57220), (4, 57019), (6, 56926), (7, 56914), (9, 56896), (Start: 27 @56722 has 31 MA's), (Start: 69 @56584 has 2 MA's), (76, 56560), (139, 56356), (156, 56311), (209, 56203), (260, 56089), (262, 56086), (305, 55996), (307, 55993), (339, 55933), (385, 55795), (390, 55777), (402, 55753), (431, 55630), (468, 55525), (496, 55399), (514, 55345), (567, 55219), (573, 55210), (584, 55186), (608, 55114), (610, 55108), (619, 55078), (641, 55021), (656, 54961), (672, 54898), (691, 54817),

Gene: Kvothe_56 Start: 53206, Stop: 51515, Start Num: 122

Candidate Starts for Kvothe_56:

(Start: 118 @53218 has 6 MA's), (Start: 122 @53206 has 2 MA's), (192, 53023), (Start: 238 @52933 has 27 MA's), (240, 52924), (253, 52888), (261, 52864), (265, 52855), (268, 52846), (290, 52798), (301, 52774), (332, 52702), (347, 52681), (360, 52645), (361, 52642), (397, 52513), (399, 52510), (409, 52474), (410, 52471), (413, 52453), (415, 52444), (419, 52432), (429, 52384), (445, 52351), (468, 52303), (476, 52279), (497, 52213), (526, 52114), (569, 52015), (574, 52006), (585, 51982), (586, 51979), (642, 51886), (648, 51862), (649, 51859), (665, 51802), (668, 51784), (694, 51667), (695, 51664), (699, 51652), (736, 51553), (747, 51532),

Gene: Labelle_76 Start: 49171, Stop: 51204, Start Num: 50

Candidate Starts for Labelle_76:

(Start: 50 @49171 has 3 MA's), (59, 49195), (Start: 78 @49258 has 1 MA's), (95, 49324), (108, 49375), (109, 49378), (146, 49486), (159, 49519), (180, 49558), (191, 49582), (219, 49645), (229, 49663), (231, 49666), (239, 49684), (241, 49690), (269, 49759), (282, 49786), (288, 49798), (308, 49831), (352, 49933), (387, 50056), (402, 50086), (426, 50191), (431, 50209), (467, 50299), (468, 50302), (486, 50404), (487, 50443), (493, 50470), (496, 50482), (511, 50530), (518, 50548), (525, 50575), (529, 50587), (532, 50596), (610, 50734), (625, 50779), (654, 50884), (686, 51013), (697, 51046), (701, 51064), (717, 51118), (732, 51157),

Gene: Lahirium_57 Start: 53124, Stop: 51712, Start Num: 238

Candidate Starts for Lahirium_57:

(102, 53472), (143, 53343), (Start: 172 @53253 has 2 MA's), (Start: 238 @53124 has 27 MA's), (253, 53079), (290, 52989), (291, 52986), (293, 52980), (303, 52959), (332, 52896), (374, 52788), (378, 52770), (405, 52683), (409, 52668), (419, 52626), (445, 52545), (468, 52497), (479, 52455), (483, 52437), (489, 52434), (497, 52407), (513, 52356), (526, 52320), (539, 52269), (586, 52185), (594, 52164), (665, 52008), (666, 52002), (668, 51990), (698, 51864), (736, 51750),

Gene: Lakshmi_29 Start: 22120, Stop: 23511, Start Num: 215

Candidate Starts for Lakshmi_29:

(Start: 215 @22120 has 84 MA's), (255, 22207), (295, 22279), (297, 22282), (324, 22345), (326, 22348), (332, 22366), (340, 22372), (358, 22399), (379, 22456), (389, 22507), (392, 22513), (394, 22516), (405, 22546), (413, 22582), (418, 22600), (424, 22636), (432, 22657), (440, 22675), (462, 22708), (477, 22747), (491, 22789), (499, 22816), (508, 22840), (518, 22876), (520, 22882), (530, 22915), (534, 22930), (535, 22939), (560, 22984), (578, 23017), (580, 23020), (612, 23104), (618, 23125), (621, 23137), (630, 23155), (653, 23245), (664, 23266), (665, 23269), (669, 23293), (670, 23302), (691, 23389), (710, 23440), (721, 23479), (734, 23503),

Gene: Lambo_58 Start: 40249, Stop: 42159, Start Num: 43

Candidate Starts for Lambo_58:

(Start: 42 @40246 has 11 MA's), (Start: 43 @40249 has 59 MA's), (Start: 57 @40261 has 1 MA's), (68, 40309), (81, 40342), (134, 40528), (142, 40543), (174, 40609), (209, 40696), (229, 40729), (262, 40810), (266, 40819), (270, 40828), (354, 41002), (357, 41008), (371, 41035), (396, 41128), (404, 41149), (406, 41155), (409, 41170), (413, 41191), (426, 41248), (431, 41266), (446, 41302), (465, 41344), (480, 41404), (504, 41500), (506, 41503), (617, 41731), (648, 41821), (656, 41857), (659, 41863), (671, 41917), (682, 41956), (707, 42058), (711, 42073), (718, 42094),

Gene: Laroye_95 Start: 55108, Stop: 56772, Start Num: 169

Candidate Starts for Laroye_95:

(Start: 169 @55108 has 8 MA's), (192, 55171), (Start: 213 @55231 has 1 MA's), (234, 55267), (249, 55312), (310, 55432), (355, 55525), (364, 55549), (366, 55561), (381, 55615), (395, 55666), (407, 55702), (412, 55729), (419, 55756), (428, 55798), (475, 55915), (500, 55993), (504, 56011), (521, 56062), (531, 56095), (538, 56128), (568, 56185), (582, 56212), (599, 56254), (616, 56311), (625, 56335), (636, 56365), (642, 56383), (649, 56410), (674, 56512), (681, 56539), (684, 56551), (701, 56620), (703, 56629), (704, 56632), (713, 56659), (715, 56665), (728, 56701), (736, 56716), (745, 56731), (749, 56752),

Gene: LazerLemon_42 Start: 31529, Stop: 32923, Start Num: 221

Candidate Starts for LazerLemon_42:

(Start: 185 @31445 has 1 MA's), (Start: 221 @31529 has 12 MA's), (Start: 238 @31562 has 27 MA's), (253, 31607), (264, 31631), (290, 31661), (291, 31664), (295, 31676), (345, 31766), (361, 31790), (394, 31901), (415, 31976), (424, 32021), (447, 32072), (450, 32075), (460, 32096), (505, 32237), (515, 32264), (520, 32285), (526, 32306), (541, 32363), (560, 32390), (564, 32396), (568, 32405), (589, 32447), (610, 32513), (612, 32516), (618, 32537), (624, 32555), (632, 32573), (649, 32627), (670, 32714), (671, 32717), (684, 32765), (693, 32804), (698, 32819), (720, 32888), (729, 32906), (734, 32915),

Gene: Leopard_64 Start: 46071, Stop: 48014, Start Num: 43

Candidate Starts for Leopard_64:

(Start: 43 @46071 has 59 MA's), (58, 46092), (64, 46122), (Start: 93 @46221 has 3 MA's), (110, 46284), (134, 46356), (139, 46365), (159, 46413), (284, 46686), (287, 46689), (355, 46851), (373, 46887), (387, 46959), (392, 46968), (406, 47001), (419, 47058), (422, 47070), (446, 47139), (449, 47148), (458, 47166), (468, 47190), (493, 47286), (496, 47298), (504, 47331), (523, 47373), (538, 47436), (603, 47541), (667, 47757), (671, 47781), (672, 47784), (683, 47826), (690, 47856), (697, 47880), (739, 47997),

Gene: LiSara_92 Start: 55240, Stop: 56904, Start Num: 169

Candidate Starts for LiSara_92:

(Start: 169 @55240 has 8 MA's), (192, 55303), (Start: 213 @55363 has 1 MA's), (234, 55399), (249, 55444), (310, 55564), (355, 55657), (364, 55681), (366, 55693), (381, 55747), (395, 55798), (407, 55834), (412, 55861), (419, 55888), (428, 55930), (475, 56047), (500, 56125), (504, 56143), (521, 56194), (531, 56227), (538, 56260), (568, 56317), (582, 56344), (599, 56386), (616, 56443), (625, 56467), (636, 56497), (642, 56515), (649, 56542), (674, 56644), (681, 56671), (684, 56683), (701, 56752), (703, 56761), (713, 56791), (715, 56797), (728, 56833), (736, 56848), (745, 56863), (749, 56884),

Gene: Lidong_57 Start: 52859, Stop: 51447, Start Num: 238

Candidate Starts for Lidong_57:

(102, 53207), (143, 53078), (Start: 172 @52988 has 2 MA's), (Start: 238 @52859 has 27 MA's), (253, 52814), (290, 52724), (291, 52721), (293, 52715), (303, 52694), (332, 52631), (365, 52553), (374, 52523), (378, 52505), (405, 52418), (409, 52403), (419, 52361), (445, 52280), (468, 52232), (479, 52190), (483, 52172), (489, 52169), (497, 52142), (513, 52091), (526, 52055), (539, 52004), (586, 51920), (594, 51899), (665, 51743), (666, 51737), (668, 51725), (698, 51599), (736, 51485),

Gene: LilStuart_25 Start: 20568, Stop: 21962, Start Num: 215

Candidate Starts for LilStuart_25:

(Start: 215 @20568 has 84 MA's), (244, 20625), (295, 20730), (297, 20733), (332, 20817), (358, 20850), (375, 20901), (379, 20907), (402, 20988), (403, 20991), (405, 20997), (413, 21033), (418, 21051), (419, 21054), (424, 21087), (432, 21108), (491, 21240), (499, 21267), (513, 21306), (518, 21327), (520, 21333), (530, 21366), (534, 21381), (535, 21390), (560, 21435), (580, 21471), (598, 21513), (618, 21576), (624, 21594), (653, 21696), (655, 21699), (664, 21717), (665, 21720), (669, 21744), (670, 21753), (691, 21840), (721, 21930), (734, 21954), (736, 21957),

Gene: Lila22_61 Start: 41200, Stop: 43113, Start Num: 43

Candidate Starts for Lila22_61:

(Start: 42 @41197 has 11 MA's), (Start: 43 @41200 has 59 MA's), (Start: 57 @41212 has 1 MA's), (68, 41260), (81, 41293), (134, 41479), (142, 41494), (174, 41560), (209, 41647), (227, 41677), (229, 41680), (254, 41743), (262, 41761), (266, 41770), (299, 41833), (309, 41860), (371, 41989), (377, 42013), (385, 42055), (404, 42103), (409, 42124), (413, 42145), (426, 42202), (446, 42256), (465, 42298), (480, 42358), (504, 42454), (506, 42457), (596, 42634), (617, 42685), (648, 42775), (656, 42811), (659, 42817), (671, 42871), (682, 42910), (707, 43012), (711, 43027), (718, 43048),

Gene: LilyPad_52 Start: 37853, Stop: 39895, Start Num: 48

Candidate Starts for LilyPad_52:

(Start: 48 @37853 has 13 MA's), (98, 38006), (113, 38066), (159, 38180), (174, 38204), (208, 38288), (229, 38324), (309, 38492), (312, 38498), (319, 38519), (361, 38606), (396, 38717), (409, 38759), (413, 38780), (431, 38855), (468, 38939), (472, 38960), (478, 38975), (490, 39020), (491, 39023), (494, 39035), (496, 39041), (497, 39044), (506, 39077), (525, 39131), (532, 39152), (538, 39182), (542, 39194), (547, 39227), (549, 39296), (567, 39353), (592, 39401), (608, 39446), (617, 39473), (663, 39620), (676, 39680), (686, 39728), (691, 39749), (708, 39806), (714, 39824), (718, 39839), (735, 39881),

Gene: Linetti_59 Start: 53022, Stop: 51613, Start Num: 238

Candidate Starts for Linetti_59:

(102, 53400), (115, 53349), (129, 53298), (149, 53244), (164, 53214), (Start: 172 @53181 has 2 MA's), (175, 53172), (Start: 187 @53145 has 24 MA's), (Start: 238 @53022 has 27 MA's), (253, 52977), (268, 52935), (290, 52887), (291, 52884), (293, 52878), (294, 52875), (301, 52863), (303, 52857), (321, 52821), (326, 52809), (327, 52806), (374, 52686), (378, 52668), (397, 52605), (405,

52581), (409, 52566), (419, 52524), (443, 52446), (468, 52395), (483, 52335), (489, 52332), (492, 52323), (497, 52305), (511, 52263), (526, 52218), (586, 52083), (593, 52068), (601, 52047), (648, 51966), (649, 51963), (665, 51906), (666, 51900), (668, 51888), (680, 51837), (684, 51822), (685, 51813), (694, 51774), (698, 51762), (728, 51666), (736, 51651),

Gene: Litotes_29 Start: 22115, Stop: 23509, Start Num: 215

Candidate Starts for Litotes_29:

(Start: 215 @22115 has 84 MA's), (244, 22172), (295, 22277), (332, 22364), (378, 22451), (379, 22454), (405, 22544), (413, 22580), (415, 22589), (418, 22598), (432, 22655), (440, 22673), (462, 22706), (468, 22718), (491, 22787), (499, 22814), (508, 22838), (520, 22880), (530, 22913), (534, 22928), (535, 22937), (583, 23027), (609, 23096), (618, 23123), (624, 23141), (630, 23153), (653, 23243), (657, 23249), (662, 23258), (664, 23264), (670, 23300), (691, 23387), (710, 23438), (713, 23444), (721, 23477), (734, 23501),

Gene: LittleFella_57 Start: 39855, Stop: 41873, Start Num: 43

Candidate Starts for LittleFella_57:

(Start: 43 @39855 has 59 MA's), (106, 40053), (109, 40062), (110, 40065), (120, 40095), (134, 40137), (139, 40146), (176, 40224), (182, 40236), (209, 40305), (229, 40338), (231, 40341), (312, 40521), (349, 40602), (361, 40629), (392, 40734), (409, 40776), (413, 40797), (468, 40956), (474, 40980), (490, 41037), (491, 41040), (496, 41058), (508, 41097), (528, 41157), (532, 41169), (535, 41187), (538, 41199), (543, 41220), (552, 41307), (557, 41310), (558, 41313), (592, 41379), (608, 41424), (617, 41451), (648, 41544), (667, 41619), (669, 41631), (671, 41643), (674, 41652), (676, 41661), (686, 41709), (691, 41727), (708, 41784), (718, 41817), (737, 41856),

Gene: Lizz_70 Start: 50158, Stop: 48272, Start Num: 43

Candidate Starts for Lizz_70:

(33, 50218), (Start: 43 @50158 has 59 MA's), (56, 50143), (74, 50080), (Start: 78 @50071 has 1 MA's), (86, 50059), (107, 49966), (126, 49903), (134, 49885), (159, 49828), (174, 49804), (243, 49645), (257, 49606), (260, 49597), (310, 49489), (360, 49381), (385, 49276), (415, 49177), (429, 49117), (467, 49030), (468, 49027), (504, 48922), (509, 48913), (514, 48901), (571, 48802), (617, 48685), (620, 48673), (632, 48646), (658, 48556), (663, 48541), (674, 48487), (686, 48430), (723, 48304),

Gene: Lizzo_59 Start: 52326, Stop: 50794, Start Num: 187

Candidate Starts for Lizzo_59:

(102, 52581), (115, 52530), (129, 52479), (149, 52425), (164, 52395), (Start: 172 @52362 has 2 MA's), (175, 52353), (Start: 187 @52326 has 24 MA's), (253, 52158), (268, 52116), (290, 52068), (294, 52056), (301, 52044), (303, 52038), (310, 52017), (326, 51990), (378, 51849), (405, 51762), (409, 51747), (411, 51735), (419, 51705), (430, 51654), (443, 51627), (468, 51576), (476, 51552), (479, 51534), (483, 51516), (489, 51513), (497, 51486), (511, 51444), (526, 51399), (586, 51264), (593, 51249), (601, 51228), (642, 51171), (648, 51147), (665, 51087), (666, 51081), (667, 51075), (668, 51069), (680, 51018), (685, 50994), (694, 50955), (698, 50943), (699, 50940), (728, 50847), (736, 50832), (747, 50811),

Gene: Lollipop1437_76 Start: 57598, Stop: 55541, Start Num: 27

Candidate Starts for Lollipop1437_76:

(5, 57886), (8, 57778), (Start: 27 @57598 has 31 MA's), (146, 57223), (198, 57115), (212, 57082), (239, 57031), (260, 56971), (262, 56968), (296, 56896), (305, 56878), (339, 56815), (340, 56809), (353, 56782), (378, 56716), (385, 56677), (390, 56659), (402, 56635), (431, 56512), (440, 56479), (468, 56416), (496, 56293), (521, 56224), (525, 56206), (573, 56101), (577, 56092), (602, 56032), (610, 55993), (619, 55963), (641, 55906), (656, 55846), (666, 55816), (672, 55783), (716, 55618),

Gene: LuckyLeo_57 Start: 40044, Stop: 41966, Start Num: 42

Candidate Starts for LuckyLeo_57:

(16, 39927), (17, 39948), (19, 39969), (36, 39999), (39, 40032), (Start: 42 @40044 has 11 MA's), (Start: 43 @40047 has 59 MA's), (Start: 57 @40062 has 1 MA's), (60, 40077), (68, 40110), (81, 40143), (84, 40146), (Start: 93 @40194 has 3 MA's), (98, 40212), (124, 40302), (130, 40320), (134, 40329), (139, 40338), (174, 40410), (229, 40530), (231, 40533), (254, 40593), (262, 40611), (299, 40683), (309, 40710), (373, 40845), (377, 40863), (385, 40905), (392, 40926), (396, 40932), (409, 40974), (413, 40995), (419, 41016), (426, 41052), (465, 41151), (467, 41160), (480, 41211), (504, 41307), (506, 41310), (566, 41421), (596, 41487), (608, 41511), (617, 41538), (668, 41706), (671, 41724), (677, 41748), (682, 41763), (683, 41769), (691, 41811), (697, 41826), (707, 41865), (711, 41880), (718, 41901), (744, 41958),

Gene: LuckySocke_124 Start: 67230, Stop: 68801, Start Num: 217

Candidate Starts for LuckySocke_124:

(Start: 217 @67230 has 3 MA's), (251, 67311), (261, 67335), (294, 67401), (332, 67482), (362, 67548), (379, 67614), (380, 67623), (404, 67701), (416, 67752), (445, 67854), (454, 67875), (456, 67878), (471, 67929), (475, 67938), (478, 67953), (480, 67965), (498, 68013), (502, 68028), (602, 68298), (606, 68310), (613, 68334), (642, 68421), (667, 68514), (669, 68526), (671, 68538), (699, 68646), (701, 68658), (718, 68715), (720, 68727), (722, 68733), (747, 68781),

Gene: Lucy_25 Start: 20556, Stop: 21950, Start Num: 215

Candidate Starts for Lucy_25:

(Start: 215 @20556 has 84 MA's), (244, 20613), (295, 20718), (297, 20721), (332, 20805), (358, 20838), (379, 20895), (402, 20976), (403, 20979), (405, 20985), (413, 21021), (418, 21039), (419, 21042), (424, 21075), (432, 21096), (462, 21147), (491, 21228), (499, 21255), (513, 21294), (518, 21315), (520, 21321), (530, 21354), (534, 21369), (541, 21396), (560, 21423), (580, 21459), (618, 21564), (624, 21582), (653, 21684), (655, 21687), (664, 21705), (665, 21708), (669, 21732), (670, 21741), (691, 21828), (710, 21879), (711, 21882), (721, 21918), (734, 21942),

Gene: Luker_58 Start: 53170, Stop: 51665, Start Num: 185

Candidate Starts for Luker_58:

(102, 53425), (143, 53296), (Start: 172 @53206 has 2 MA's), (Start: 185 @53170 has 1 MA's), (Start: 238 @53077 has 27 MA's), (253, 53032), (290, 52942), (291, 52939), (293, 52933), (303, 52912), (332, 52849), (374, 52741), (378, 52723), (405, 52636), (409, 52621), (419, 52579), (445, 52498), (468, 52450), (479, 52408), (483, 52390), (489, 52387), (497, 52360), (513, 52309), (526, 52273), (539, 52222), (586, 52138), (594, 52117), (665, 51961), (666, 51955), (668, 51943), (698, 51817), (736, 51703),

Gene: MacGully_81 Start: 56374, Stop: 54335, Start Num: 30

Candidate Starts for MacGully_81:

(Start: 30 @56374 has 1 MA's), (47, 56305), (52, 56299), (159, 55975), (176, 55951), (209, 55870), (212, 55867), (257, 55765), (260, 55756), (274, 55726), (305, 55660), (341, 55588), (373, 55519), (387, 55447), (409, 55390), (468, 55210), (474, 55186), (488, 55123), (496, 55087), (521, 55018), (523, 55012), (525, 55000), (602, 54826), (666, 54604), (672, 54571), (683, 54529), (690, 54499), (691, 54490), (700, 54466), (701, 54457), (714, 54415),

Gene: Madi_50 Start: 36692, Stop: 38746, Start Num: 48

Candidate Starts for Madi_50:

(Start: 48 @36692 has 13 MA's), (60, 36716), (84, 36779), (104, 36863), (113, 36905), (208, 37127), (229, 37163), (260, 37238), (278, 37277), (306, 37319), (312, 37337), (319, 37358), (325, 37370), (354, 37430), (361, 37445), (371, 37463), (387, 37541), (396, 37556), (398, 37559), (409, 37598), (413, 37619), (444, 37721), (468, 37778), (472, 37799), (474, 37802), (478, 37814), (491, 37862), (493, 37868), (506, 37916), (520, 37949), (526, 37973), (532, 37991), (538, 38021), (550, 38144), (558, 38177), (565, 38189), (573, 38204), (592, 38243), (608, 38288), (617, 38315), (646, 38399),

(663, 38462), (671, 38504), (674, 38513), (676, 38522), (686, 38570), (690, 38579), (691, 38591), (697, 38606), (708, 38648),

Gene: Madruga_74 Start: 48812, Stop: 50845, Start Num: 50

Candidate Starts for Madruga_74:

(24, 48722), (Start: 50 @48812 has 3 MA's), (59, 48836), (Start: 78 @48899 has 1 MA's), (95, 48965), (108, 49016), (109, 49019), (146, 49127), (159, 49160), (180, 49199), (191, 49223), (219, 49286), (229, 49304), (239, 49325), (241, 49331), (269, 49400), (282, 49427), (288, 49439), (308, 49472), (352, 49574), (387, 49697), (402, 49727), (426, 49832), (431, 49850), (467, 49940), (468, 49943), (486, 50045), (487, 50084), (493, 50111), (496, 50123), (511, 50171), (518, 50189), (525, 50216), (529, 50228), (532, 50237), (610, 50375), (625, 50420), (654, 50525), (686, 50654), (697, 50687), (701, 50705), (717, 50759), (732, 50798),

Gene: Makoto_25 Start: 20576, Stop: 21970, Start Num: 215

Candidate Starts for Makoto_25:

(Start: 215 @20576 has 84 MA's), (244, 20633), (295, 20738), (332, 20825), (358, 20858), (379, 20915), (389, 20966), (402, 20996), (403, 20999), (405, 21005), (413, 21041), (418, 21059), (419, 21062), (424, 21095), (432, 21116), (491, 21248), (499, 21275), (513, 21314), (518, 21335), (520, 21341), (530, 21374), (534, 21389), (535, 21398), (560, 21443), (580, 21479), (598, 21521), (618, 21584), (624, 21602), (653, 21704), (655, 21707), (664, 21725), (665, 21728), (669, 21752), (670, 21761), (691, 21848), (721, 21938), (734, 21962),

Gene: MamaPearl_26 Start: 21743, Stop: 23140, Start Num: 215

Candidate Starts for MamaPearl_26:

(Start: 215 @21743 has 84 MA's), (244, 21803), (295, 21908), (297, 21911), (332, 21995), (358, 22028), (375, 22079), (379, 22085), (402, 22166), (405, 22175), (413, 22211), (418, 22229), (419, 22232), (424, 22265), (432, 22286), (491, 22418), (511, 22475), (513, 22484), (518, 22505), (520, 22511), (530, 22544), (534, 22559), (564, 22619), (580, 22649), (610, 22730), (624, 22772), (639, 22805), (651, 22868), (655, 22877), (662, 22889), (664, 22895), (667, 22910), (669, 22922), (670, 22931), (691, 23018), (713, 23075), (721, 23108),

Gene: Mareelih_167 Start: 96276, Stop: 94366, Start Num: 48

Candidate Starts for Mareelih_167:

(Start: 48 @96276 has 13 MA's), (113, 96072), (128, 96024), (152, 95979), (180, 95898), (188, 95886), (231, 95781), (241, 95754), (330, 95649), (343, 95625), (383, 95460), (468, 95193), (470, 95184), (478, 95157), (504, 95088), (585, 94839), (617, 94773), (625, 94749), (667, 94614), (681, 94554), (698, 94482),

Gene: Maria1952_26 Start: 21732, Stop: 23129, Start Num: 215

Candidate Starts for Maria1952_26:

(Start: 215 @21732 has 84 MA's), (244, 21792), (281, 21879), (295, 21897), (297, 21900), (332, 21984), (340, 21990), (358, 22017), (375, 22068), (379, 22074), (389, 22125), (394, 22134), (402, 22155), (405, 22164), (413, 22200), (419, 22221), (424, 22254), (432, 22275), (440, 22293), (444, 22299), (462, 22326), (468, 22338), (473, 22353), (491, 22407), (508, 22458), (511, 22464), (513, 22473), (515, 22479), (520, 22500), (530, 22533), (534, 22548), (535, 22557), (598, 22680), (610, 22719), (618, 22743), (621, 22755), (653, 22863), (657, 22869), (662, 22878), (664, 22884), (670, 22920), (691, 23007), (721, 23097), (734, 23121),

Gene: Marietta_72 Start: 52748, Stop: 50667, Start Num: 27

Candidate Starts for Marietta_72:

(7, 52940), (9, 52922), (14, 52847), (Start: 27 @52748 has 31 MA's), (209, 52229), (229, 52196), (239, 52175), (258, 52121), (260, 52115), (262, 52112), (305, 52022), (307, 52019), (339, 51959), (390, 51803), (431, 51656), (468, 51548), (474, 51524), (496, 51422), (514, 51368), (521, 51353), (542,

51272), (573, 51233), (600, 51170), (608, 51131), (610, 51125), (619, 51095), (656, 50978), (672, 50915), (686, 50852), (691, 50834), (716, 50750),

Gene: Marky_44 Start: 31624, Stop: 33015, Start Num: 223

Candidate Starts for Marky_44:

(210, 31615), (Start: 223 @31624 has 2 MA's), (226, 31630), (253, 31699), (264, 31723), (295, 31768), (347, 31861), (375, 31927), (409, 32038), (415, 32068), (416, 32071), (462, 32194), (505, 32329), (515, 32356), (520, 32377), (526, 32398), (530, 32410), (589, 32539), (612, 32608), (618, 32629), (624, 32647), (632, 32665), (649, 32719), (653, 32749), (670, 32806), (671, 32809), (684, 32857), (705, 32926), (720, 32980), (729, 32998),

Gene: Maselop_72 Start: 53166, Stop: 51130, Start Num: 29

Candidate Starts for Maselop_72:

(10, 53334), (Start: 29 @53166 has 6 MA's), (44, 53100), (61, 53058), (95, 52953), (156, 52773), (189, 52716), (209, 52665), (219, 52650), (257, 52560), (262, 52548), (305, 52455), (341, 52383), (373, 52314), (387, 52242), (409, 52185), (468, 52005), (474, 51981), (488, 51918), (496, 51882), (525, 51795), (585, 51663), (601, 51624), (602, 51621), (610, 51576), (656, 51429), (672, 51366), (683, 51324), (691, 51285), (700, 51261),

Gene: Mbo2_52 Start: 42925, Stop: 41438, Start Num: 203

Candidate Starts for Mbo2_52:

(170, 43012), (Start: 203 @42925 has 3 MA's), (240, 42838), (253, 42802), (261, 42784), (268, 42769), (275, 42754), (281, 42742), (290, 42730), (292, 42724), (309, 42682), (365, 42559), (398, 42445), (418, 42370), (430, 42316), (467, 42241), (468, 42238), (476, 42214), (489, 42175), (501, 42136), (519, 42094), (594, 41911), (626, 41851), (634, 41833), (648, 41788), (649, 41785), (661, 41737), (664, 41728), (668, 41707), (671, 41689), (677, 41665), (684, 41641), (694, 41599), (701, 41572), (704, 41560), (714, 41530), (718, 41515), (741, 41473),

Gene: MeganNoll_29 Start: 22157, Stop: 23557, Start Num: 215

Candidate Starts for MeganNoll_29:

(Start: 215 @22157 has 84 MA's), (244, 22220), (295, 22325), (297, 22328), (332, 22412), (358, 22445), (375, 22496), (379, 22502), (402, 22583), (403, 22586), (405, 22592), (413, 22628), (418, 22646), (419, 22649), (432, 22703), (462, 22754), (491, 22835), (499, 22862), (511, 22892), (513, 22901), (520, 22928), (530, 22961), (534, 22976), (560, 23030), (572, 23051), (578, 23063), (583, 23075), (657, 23297), (662, 23306), (664, 23312), (670, 23348), (685, 23408), (691, 23435), (721, 23525),

Gene: Megatron06_62 Start: 46630, Stop: 48687, Start Num: 43

Candidate Starts for Megatron06_62:

(Start: 43 @46630 has 59 MA's), (66, 46690), (67, 46693), (Start: 93 @46786 has 3 MA's), (97, 46798), (103, 46819), (142, 46942), (144, 46945), (146, 46954), (159, 46987), (165, 47008), (180, 47056), (198, 47098), (229, 47161), (239, 47182), (241, 47188), (262, 47242), (352, 47428), (354, 47440), (365, 47458), (371, 47473), (373, 47479), (468, 47797), (469, 47800), (480, 47845), (493, 47896), (496, 47908), (525, 47998), (529, 48010), (537, 48043), (558, 48067), (563, 48076), (610, 48166), (620, 48199), (654, 48310), (656, 48313), (658, 48316), (659, 48319), (668, 48355), (671, 48373), (686, 48439), (691, 48457), (750, 48634),

Gene: MerCougar_75 Start: 57668, Stop: 55593, Start Num: 27

Candidate Starts for MerCougar_75:

(Start: 27 @57668 has 31 MA's), (61, 57548), (Start: 78 @57503 has 1 MA's), (80, 57500), (156, 57257), (189, 57200), (209, 57149), (239, 57095), (262, 57032), (305, 56942), (307, 56939), (314, 56915), (339, 56879), (390, 56723), (402, 56699), (431, 56576), (468, 56465), (474, 56441), (496, 56342), (514, 56288), (532, 56234), (542, 56192), (573, 56153), (585, 56126), (602, 56084), (608,

56051), (619, 56015), (639, 55970), (641, 55958), (656, 55898), (691, 55754), (716, 55670),

Gene: Microdon_41 Start: 30843, Stop: 32237, Start Num: 221

Candidate Starts for Microdon_41:

(Start: 221 @30843 has 12 MA's), (Start: 223 @30846 has 2 MA's), (253, 30921), (264, 30945), (267, 30951), (290, 30975), (295, 30990), (297, 30993), (329, 31065), (345, 31080), (365, 31116), (394, 31215), (462, 31416), (505, 31551), (515, 31578), (520, 31599), (541, 31677), (564, 31710), (568, 31719), (589, 31761), (610, 31827), (612, 31830), (618, 31851), (624, 31869), (632, 31887), (649, 31941), (653, 31971), (670, 32028), (671, 32031), (684, 32079), (693, 32118), (698, 32133), (720, 32202), (729, 32220), (734, 32229),

Gene: Milani_33 Start: 22173, Stop: 23600, Start Num: 215

Candidate Starts for Milani_33:

(Start: 215 @22173 has 84 MA's), (375, 22527), (378, 22530), (383, 22551), (409, 22638), (520, 22974), (526, 22995), (534, 23022), (540, 23049), (541, 23052), (564, 23085), (582, 23121), (610, 23196), (618, 23220), (642, 23283), (649, 23304), (665, 23358), (670, 23391), (674, 23403), (684, 23442), (691, 23478), (694, 23484), (698, 23496), (705, 23511), (719, 23559), (721, 23568), (734, 23592),

Gene: Mima20_62 Start: 40803, Stop: 42716, Start Num: 43

Candidate Starts for Mima20_62:

(Start: 42 @40800 has 11 MA's), (Start: 43 @40803 has 59 MA's), (Start: 57 @40815 has 1 MA's), (68, 40863), (81, 40896), (98, 40965), (124, 41055), (134, 41082), (139, 41091), (174, 41163), (229, 41283), (254, 41346), (299, 41436), (309, 41463), (371, 41592), (377, 41616), (385, 41658), (404, 41706), (409, 41727), (413, 41748), (426, 41805), (446, 41859), (465, 41901), (480, 41961), (504, 42057), (506, 42060), (596, 42237), (617, 42288), (648, 42378), (656, 42414), (659, 42420), (671, 42474), (682, 42513), (707, 42615), (711, 42630), (718, 42651),

Gene: Mimi_107 Start: 80085, Stop: 81923, Start Num: 49

Candidate Starts for Mimi_107:

(Start: 49 @80085 has 2 MA's), (73, 80166), (100, 80244), (Start: 131 @80340 has 3 MA's), (176, 80400), (189, 80430), (241, 80550), (259, 80601), (336, 80661), (423, 81000), (444, 81057), (453, 81078), (470, 81123), (494, 81180), (496, 81186), (504, 81219), (510, 81231), (515, 81243), (529, 81288), (538, 81327), (566, 81384), (569, 81390), (585, 81423), (619, 81492), (649, 81576), (678, 81693), (724, 81867), (746, 81909),

Gene: Minos_58 Start: 52601, Stop: 51189, Start Num: 238

Candidate Starts for Minos_58:

(102, 52949), (143, 52820), (171, 52733), (Start: 172 @52730 has 2 MA's), (Start: 238 @52601 has 27 MA's), (253, 52556), (290, 52466), (291, 52463), (293, 52457), (303, 52436), (332, 52373), (374, 52265), (378, 52247), (405, 52160), (409, 52145), (419, 52103), (445, 52022), (468, 51974), (479, 51932), (483, 51914), (489, 51911), (497, 51884), (513, 51833), (526, 51797), (539, 51746), (586, 51662), (594, 51641), (665, 51485), (666, 51479), (668, 51467), (698, 51341), (736, 51227),

Gene: Misaeng_29 Start: 22230, Stop: 23621, Start Num: 215

Candidate Starts for Misaeng_29:

(Start: 215 @22230 has 84 MA's), (255, 22317), (295, 22389), (297, 22392), (326, 22458), (332, 22476), (358, 22509), (379, 22566), (402, 22647), (405, 22656), (413, 22692), (418, 22710), (424, 22746), (432, 22767), (440, 22785), (462, 22818), (491, 22899), (499, 22926), (508, 22950), (518, 22986), (520, 22992), (530, 23025), (534, 23040), (535, 23049), (560, 23094), (578, 23127), (580, 23130), (612, 23214), (621, 23247), (624, 23253), (630, 23265), (653, 23355), (657, 23361), (664, 23376), (665, 23379), (667, 23391), (669, 23403), (670, 23412), (691, 23499), (721, 23589),

Gene: MoiGyank_63 Start: 41576, Stop: 43489, Start Num: 43

Candidate Starts for MoiGyank_63:

(Start: 42 @41573 has 11 MA's), (Start: 43 @41576 has 59 MA's), (Start: 57 @41588 has 1 MA's), (68, 41636), (81, 41669), (98, 41738), (124, 41828), (134, 41855), (139, 41864), (174, 41936), (229, 42056), (254, 42119), (299, 42209), (371, 42365), (377, 42389), (385, 42431), (404, 42479), (409, 42500), (413, 42521), (426, 42578), (431, 42596), (446, 42632), (465, 42674), (480, 42734), (504, 42830), (506, 42833), (596, 43010), (617, 43061), (648, 43151), (656, 43187), (659, 43193), (668, 43229), (671, 43247), (682, 43286), (707, 43388), (711, 43403), (718, 43424),

Gene: Moki_25 Start: 20566, Stop: 21960, Start Num: 215

Candidate Starts for Moki_25:

(Start: 215 @20566 has 84 MA's), (244, 20623), (295, 20728), (332, 20815), (358, 20848), (378, 20902), (379, 20905), (405, 20995), (413, 21031), (418, 21049), (419, 21052), (432, 21106), (491, 21238), (499, 21265), (511, 21295), (513, 21304), (520, 21331), (530, 21364), (534, 21379), (541, 21406), (560, 21433), (580, 21469), (598, 21511), (618, 21574), (624, 21592), (649, 21664), (651, 21688), (653, 21694), (655, 21697), (664, 21715), (665, 21718), (669, 21742), (670, 21751), (691, 21838), (710, 21889), (721, 21928),

Gene: Monty_58 Start: 51476, Stop: 49944, Start Num: 187

Candidate Starts for Monty_58:

(102, 51731), (115, 51680), (129, 51629), (149, 51575), (164, 51545), (Start: 172 @51512 has 2 MA's), (175, 51503), (Start: 187 @51476 has 24 MA's), (253, 51308), (268, 51266), (290, 51218), (294, 51206), (301, 51194), (303, 51188), (310, 51167), (326, 51140), (378, 50999), (405, 50912), (409, 50897), (411, 50885), (419, 50855), (430, 50804), (443, 50777), (468, 50726), (483, 50666), (489, 50663), (497, 50636), (511, 50594), (526, 50549), (586, 50414), (593, 50399), (601, 50378), (648, 50297), (649, 50294), (665, 50237), (666, 50231), (667, 50225), (668, 50219), (685, 50144), (694, 50105), (698, 50093), (699, 50090), (728, 49997), (736, 49982), (747, 49961),

Gene: MontyDev_68 Start: 47606, Stop: 49366, Start Num: 147

Candidate Starts for MontyDev_68:

(Start: 147 @47606 has 9 MA's), (182, 47675), (225, 47771), (231, 47780), (262, 47861), (283, 47906), (358, 48083), (371, 48107), (384, 48155), (402, 48215), (406, 48227), (421, 48293), (458, 48416), (468, 48440), (474, 48464), (496, 48668), (504, 48701), (511, 48716), (525, 48755), (526, 48758), (529, 48767), (573, 48836), (625, 48968), (656, 49091), (658, 49094), (666, 49121), (671, 49151), (673, 49157), (674, 49160), (678, 49178), (682, 49190), (718, 49325), (726, 49352), (728, 49355),

Gene: Mopey_54 Start: 39729, Stop: 41672, Start Num: 43

Candidate Starts for Mopey_54:

(Start: 43 @39729 has 59 MA's), (59, 39756), (82, 39828), (94, 39882), (110, 39942), (117, 39960), (Start: 118 @39969 has 6 MA's), (138, 40020), (153, 40062), (174, 40098), (209, 40185), (252, 40278), (257, 40293), (266, 40314), (319, 40416), (337, 40449), (348, 40473), (373, 40533), (396, 40620), (416, 40695), (446, 40785), (468, 40836), (469, 40839), (491, 40929), (496, 40947), (504, 40980), (525, 41034), (529, 41046), (534, 41064), (573, 41127), (608, 41211), (648, 41328), (656, 41376), (672, 41439), (691, 41523),

Gene: MortySmith_38 Start: 24974, Stop: 26881, Start Num: 51

Candidate Starts for MortySmith_38:

(15, 24800), (Start: 51 @24974 has 32 MA's), (74, 25037), (86, 25058), (95, 25112), (142, 25247), (159, 25289), (184, 25334), (257, 25508), (260, 25517), (305, 25607), (320, 25649), (326, 25664), (386, 25850), (426, 25985), (429, 25997), (444, 26030), (496, 26159), (534, 26276), (656, 26585), (658, 26588), (671, 26648), (692, 26738), (701, 26768), (714, 26810), (732, 26861),

Gene: MrMiyagi_73 Start: 45205, Stop: 47052, Start Num: 79

Candidate Starts for MrMiyagi_73:

(Start: 79 @45205 has 3 MA's), (88, 45223), (Start: 93 @45259 has 3 MA's), (106, 45310), (146, 45418), (159, 45451), (189, 45511), (206, 45553), (227, 45592), (266, 45688), (271, 45700), (285, 45727), (292, 45742), (295, 45751), (312, 45790), (317, 45805), (354, 45892), (360, 45904), (387, 46003), (390, 46009), (402, 46033), (416, 46093), (437, 46171), (451, 46198), (465, 46228), (468, 46240), (474, 46264), (496, 46342), (504, 46375), (511, 46390), (522, 46414), (523, 46417), (529, 46441), (656, 46765), (660, 46774), (667, 46801), (671, 46825), (683, 46870), (691, 46912), (705, 46960), (710, 46978), (730, 47035),

Gene: MrWormie_57 Start: 51762, Stop: 50350, Start Num: 238

Candidate Starts for MrWormie_57:

(102, 52110), (143, 51981), (Start: 172 @51891 has 2 MA's), (Start: 238 @51762 has 27 MA's), (253, 51717), (290, 51627), (291, 51624), (293, 51618), (303, 51597), (332, 51534), (374, 51426), (378, 51408), (405, 51321), (409, 51306), (419, 51264), (445, 51183), (468, 51135), (479, 51093), (483, 51075), (489, 51072), (497, 51045), (513, 50994), (526, 50958), (539, 50907), (586, 50823), (594, 50802), (665, 50646), (666, 50640), (668, 50628), (698, 50502), (736, 50388),

Gene: Msay19_64 Start: 54046, Stop: 52514, Start Num: 187

Candidate Starts for Msay19_64:

(102, 54301), (115, 54250), (149, 54145), (164, 54115), (Start: 172 @54082 has 2 MA's), (175, 54073), (Start: 187 @54046 has 24 MA's), (253, 53878), (268, 53836), (276, 53818), (290, 53788), (294, 53776), (301, 53764), (303, 53758), (310, 53737), (378, 53569), (405, 53482), (409, 53467), (411, 53455), (419, 53425), (430, 53374), (468, 53296), (476, 53272), (479, 53254), (483, 53236), (489, 53233), (492, 53224), (497, 53206), (511, 53164), (526, 53119), (532, 53101), (586, 52984), (593, 52969), (601, 52948), (648, 52867), (649, 52864), (665, 52807), (666, 52801), (668, 52789), (685, 52714), (694, 52675), (698, 52663), (699, 52660), (728, 52567), (736, 52552),

Gene: NadineRae_71 Start: 52357, Stop: 50276, Start Num: 27

Candidate Starts for NadineRae_71:

(Start: 27 @52357 has 31 MA's), (95, 52126), (209, 51838), (229, 51805), (239, 51784), (258, 51730), (260, 51724), (262, 51721), (305, 51631), (307, 51628), (339, 51568), (390, 51412), (431, 51265), (457, 51184), (468, 51157), (474, 51133), (496, 51031), (514, 50977), (521, 50962), (542, 50881), (573, 50842), (600, 50779), (608, 50740), (610, 50734), (619, 50704), (656, 50587), (672, 50524), (686, 50461), (691, 50443), (716, 50359),

Gene: Nancia_25 Start: 20580, Stop: 21974, Start Num: 215

Candidate Starts for Nancia_25:

(Start: 215 @20580 has 84 MA's), (244, 20637), (295, 20742), (297, 20745), (332, 20829), (358, 20862), (375, 20913), (379, 20919), (402, 21000), (403, 21003), (405, 21009), (413, 21045), (418, 21063), (419, 21066), (424, 21099), (432, 21120), (491, 21252), (499, 21279), (513, 21318), (518, 21339), (520, 21345), (530, 21378), (534, 21393), (535, 21402), (560, 21447), (580, 21483), (598, 21525), (618, 21588), (624, 21606), (653, 21708), (655, 21711), (664, 21729), (665, 21732), (669, 21756), (670, 21765), (691, 21852), (721, 21942), (734, 21966),

Gene: NarutoRun_40 Start: 25911, Stop: 27818, Start Num: 51

Candidate Starts for NarutoRun_40:

(Start: 51 @25911 has 32 MA's), (74, 25974), (86, 25995), (95, 26049), (159, 26226), (184, 26271), (257, 26445), (260, 26454), (305, 26544), (326, 26601), (386, 26787), (426, 26922), (429, 26934), (444, 26967), (496, 27096), (534, 27213), (585, 27288), (656, 27522), (658, 27525), (671, 27585), (692, 27675), (701, 27705), (714, 27747), (732, 27798),

Gene: NatB6_72 Start: 55674, Stop: 53746, Start Num: 69

Candidate Starts for NatB6_72:

(1, 56310), (4, 56109), (6, 56016), (7, 56004), (9, 55986), (Start: 27 @55812 has 31 MA's), (Start: 69 @55674 has 2 MA's), (76, 55650), (139, 55446), (156, 55401), (209, 55293), (260, 55179), (262, 55176), (305, 55086), (307, 55083), (339, 55023), (385, 54885), (390, 54867), (402, 54843), (431, 54720), (468, 54615), (496, 54489), (514, 54435), (523, 54414), (573, 54300), (608, 54204), (610, 54198), (619, 54168), (641, 54111), (656, 54051), (672, 53988), (691, 53907),

Gene: Neoevie_57 Start: 52863, Stop: 51451, Start Num: 238

Candidate Starts for Neoevie_57:

(102, 53211), (143, 53082), (171, 52995), (Start: 172 @52992 has 2 MA's), (Start: 238 @52863 has 27 MA's), (253, 52818), (290, 52728), (291, 52725), (293, 52719), (303, 52698), (332, 52635), (374, 52527), (378, 52509), (405, 52422), (409, 52407), (419, 52365), (445, 52284), (468, 52236), (479, 52194), (483, 52176), (489, 52173), (497, 52146), (513, 52095), (526, 52059), (539, 52008), (586, 51924), (594, 51903), (665, 51747), (666, 51741), (668, 51729), (698, 51603), (736, 51489),

Gene: Neptune_40 Start: 25911, Stop: 27818, Start Num: 51

Candidate Starts for Neptune_40:

(Start: 51 @25911 has 32 MA's), (74, 25974), (86, 25995), (95, 26049), (159, 26226), (184, 26271), (257, 26445), (260, 26454), (305, 26544), (386, 26787), (426, 26922), (429, 26934), (444, 26967), (496, 27096), (534, 27213), (585, 27288), (656, 27522), (658, 27525), (671, 27585), (692, 27675), (701, 27705), (714, 27747), (732, 27798),

Gene: Newt_58 Start: 53091, Stop: 51679, Start Num: 238

Candidate Starts for Newt_58:

(102, 53439), (143, 53310), (171, 53223), (Start: 172 @53220 has 2 MA's), (Start: 238 @53091 has 27 MA's), (253, 53046), (290, 52956), (291, 52953), (293, 52947), (303, 52926), (332, 52863), (374, 52755), (378, 52737), (405, 52650), (409, 52635), (419, 52593), (445, 52512), (468, 52464), (479, 52422), (483, 52404), (489, 52401), (497, 52374), (513, 52323), (526, 52287), (539, 52236), (586, 52152), (594, 52131), (665, 51975), (666, 51969), (668, 51957), (698, 51831), (736, 51717),

Gene: Niagara_57 Start: 53309, Stop: 51606, Start Num: 118

Candidate Starts for Niagara_57:

(Start: 118 @53309 has 6 MA's), (Start: 122 @53297 has 2 MA's), (192, 53114), (Start: 238 @53024 has 27 MA's), (240, 53015), (253, 52979), (261, 52955), (265, 52946), (268, 52937), (290, 52889), (301, 52865), (332, 52793), (347, 52772), (360, 52736), (361, 52733), (397, 52604), (399, 52601), (409, 52565), (410, 52562), (413, 52544), (415, 52535), (419, 52523), (429, 52475), (445, 52442), (468, 52394), (476, 52370), (497, 52304), (526, 52205), (569, 52106), (574, 52097), (585, 52073), (586, 52070), (642, 51977), (648, 51953), (649, 51950), (665, 51893), (668, 51875), (694, 51758), (695, 51755), (699, 51743), (736, 51644), (747, 51623),

Gene: Nilo_68 Start: 47960, Stop: 49720, Start Num: 147

Candidate Starts for Nilo_68:

(Start: 147 @47960 has 9 MA's), (182, 48029), (225, 48125), (231, 48134), (262, 48215), (283, 48260), (371, 48461), (384, 48509), (402, 48569), (406, 48581), (421, 48647), (458, 48770), (468, 48794), (474, 48818), (496, 49022), (504, 49055), (511, 49070), (525, 49109), (526, 49112), (529, 49121), (573, 49190), (625, 49322), (656, 49445), (658, 49448), (666, 49475), (671, 49505), (673, 49511), (674, 49514), (678, 49532), (682, 49544), (718, 49679), (728, 49709),

Gene: Nimi13_57 Start: 52610, Stop: 51198, Start Num: 238

Candidate Starts for Nimi13_57:

(102, 52958), (143, 52829), (Start: 172 @52739 has 2 MA's), (Start: 238 @52610 has 27 MA's), (253, 52565), (290, 52475), (291, 52472), (293, 52466), (303, 52445), (332, 52382), (374, 52274), (378, 52256), (405, 52169), (409, 52154), (419, 52112), (445, 52031), (468, 51983), (479, 51941), (483,

51923), (489, 51920), (497, 51893), (513, 51842), (526, 51806), (539, 51755), (586, 51671), (594, 51650), (665, 51494), (666, 51488), (668, 51476), (698, 51350), (736, 51236),

Gene: Nonagon_72 Start: 46348, Stop: 44768, Start Num: 198

Candidate Starts for Nonagon_72:

(167, 46438), (198, 46348), (Start: 218 @46297 has 1 MA's), (226, 46282), (265, 46189), (272, 46174), (293, 46144), (301, 46129), (309, 46105), (323, 46078), (348, 46033), (362, 45994), (365, 45979), (377, 45937), (387, 45883), (409, 45820), (428, 45730), (434, 45715), (441, 45694), (467, 45637), (475, 45616), (501, 45532), (516, 45481), (541, 45388), (545, 45373), (566, 45349), (574, 45334), (576, 45331), (587, 45307), (591, 45301), (595, 45286), (621, 45202), (631, 45181), (632, 45178), (640, 45148), (642, 45145), (659, 45076), (663, 45064), (671, 45022), (673, 45016), (683, 44977), (687, 44953), (712, 44872), (725, 44830), (726, 44827),

Gene: NorManre_63 Start: 40960, Stop: 42873, Start Num: 43

Candidate Starts for NorManre_63:

(17, 40834), (18, 40843), (19, 40855), (26, 40888), (Start: 42 @40957 has 11 MA's), (Start: 43 @40960 has 59 MA's), (Start: 57 @40972 has 1 MA's), (68, 41020), (98, 41122), (124, 41212), (134, 41239), (139, 41248), (174, 41320), (229, 41440), (254, 41503), (299, 41593), (309, 41620), (371, 41749), (377, 41773), (385, 41815), (404, 41863), (409, 41884), (413, 41905), (426, 41962), (431, 41980), (446, 42016), (465, 42058), (480, 42118), (504, 42214), (506, 42217), (596, 42394), (617, 42445), (648, 42535), (656, 42571), (659, 42577), (671, 42631), (682, 42670), (707, 42772), (711, 42787), (718, 42808), (744, 42865),

Gene: NosilaM_73 Start: 56110, Stop: 54188, Start Num: 78

Candidate Starts for NosilaM_73:

(Start: 27 @56275 has 31 MA's), (Start: 78 @56110 has 1 MA's), (80, 56107), (156, 55852), (209, 55744), (239, 55690), (262, 55627), (305, 55537), (307, 55534), (314, 55510), (339, 55474), (385, 55336), (390, 55318), (396, 55309), (402, 55294), (431, 55171), (457, 55087), (468, 55060), (474, 55036), (496, 54937), (514, 54883), (532, 54829), (542, 54787), (573, 54748), (602, 54679), (608, 54646), (619, 54610), (639, 54565), (641, 54553), (656, 54493), (672, 54430), (716, 54265),

Gene: Nova_52 Start: 40183, Stop: 42126, Start Num: 43

Candidate Starts for Nova_52:

(32, 40120), (Start: 43 @40183 has 59 MA's), (59, 40210), (82, 40282), (94, 40336), (110, 40396), (Start: 118 @40423 has 6 MA's), (138, 40474), (139, 40477), (153, 40516), (174, 40552), (209, 40639), (252, 40732), (257, 40747), (266, 40768), (319, 40870), (337, 40903), (348, 40927), (373, 40987), (396, 41074), (416, 41149), (446, 41239), (468, 41290), (469, 41293), (491, 41383), (496, 41401), (504, 41434), (529, 41500), (534, 41518), (573, 41581), (608, 41665), (648, 41782), (656, 41830), (672, 41893), (691, 41977),

Gene: NovaSharks_62 Start: 39405, Stop: 41321, Start Num: 42

Candidate Starts for NovaSharks_62:

(Start: 42 @39405 has 11 MA's), (Start: 43 @39408 has 59 MA's), (Start: 57 @39420 has 1 MA's), (68, 39468), (81, 39501), (124, 39660), (134, 39687), (139, 39696), (174, 39768), (229, 39888), (254, 39951), (299, 40041), (309, 40068), (371, 40197), (377, 40221), (385, 40263), (387, 40275), (396, 40290), (404, 40311), (409, 40332), (413, 40353), (426, 40410), (431, 40428), (446, 40464), (465, 40506), (480, 40566), (504, 40662), (506, 40665), (596, 40842), (617, 40893), (648, 40983), (656, 41019), (659, 41025), (671, 41079), (682, 41118), (707, 41220), (711, 41235), (718, 41256),

Gene: NovumRegina_72 Start: 56100, Stop: 54034, Start Num: 27

Candidate Starts for NovumRegina_72:

(6, 56304), (7, 56292), (9, 56274), (Start: 27 @56100 has 31 MA's), (Start: 69 @55962 has 2 MA's), (76, 55938), (139, 55734), (156, 55689), (209, 55581), (260, 55467), (262, 55464), (305, 55374), (307,

55371), (339, 55311), (385, 55173), (390, 55155), (402, 55131), (431, 55008), (468, 54903), (496, 54777), (514, 54723), (567, 54597), (573, 54588), (584, 54564), (608, 54492), (610, 54486), (619, 54456), (641, 54399), (656, 54339), (672, 54276), (691, 54195),

Gene: Nubia_29 Start: 22080, Stop: 23471, Start Num: 215

Candidate Starts for Nubia_29:

(Start: 215 @22080 has 84 MA's), (255, 22167), (295, 22239), (297, 22242), (326, 22308), (332, 22326), (340, 22332), (358, 22359), (379, 22416), (389, 22467), (405, 22506), (413, 22542), (418, 22560), (424, 22596), (432, 22617), (440, 22635), (462, 22668), (477, 22707), (491, 22749), (499, 22776), (508, 22800), (518, 22836), (520, 22842), (530, 22875), (534, 22890), (535, 22899), (560, 22944), (578, 22977), (580, 22980), (618, 23085), (621, 23097), (630, 23115), (653, 23205), (664, 23226), (665, 23229), (669, 23253), (670, 23262), (691, 23349), (710, 23400), (721, 23439), (734, 23463),

Gene: OMalley_26 Start: 21745, Stop: 23139, Start Num: 215

Candidate Starts for OMalley_26:

(Start: 215 @21745 has 84 MA's), (244, 21802), (281, 21889), (295, 21907), (297, 21910), (332, 21994), (358, 22027), (375, 22078), (379, 22084), (394, 22144), (405, 22174), (413, 22210), (418, 22228), (432, 22285), (440, 22303), (444, 22309), (462, 22336), (491, 22417), (499, 22444), (508, 22468), (513, 22483), (520, 22510), (530, 22543), (534, 22558), (598, 22690), (609, 22726), (618, 22753), (621, 22765), (630, 22783), (653, 22873), (657, 22879), (664, 22894), (665, 22897), (670, 22930), (685, 22990), (691, 23017), (713, 23074), (721, 23107), (734, 23131),

Gene: Oaker_60 Start: 46344, Stop: 48401, Start Num: 43

Candidate Starts for Oaker_60:

(Start: 43 @46344 has 59 MA's), (66, 46404), (67, 46407), (Start: 93 @46500 has 3 MA's), (97, 46512), (103, 46533), (142, 46656), (144, 46659), (146, 46668), (159, 46701), (165, 46722), (180, 46770), (198, 46812), (229, 46875), (239, 46896), (241, 46902), (262, 46956), (352, 47142), (354, 47154), (365, 47172), (371, 47187), (373, 47193), (468, 47511), (469, 47514), (480, 47559), (493, 47610), (496, 47622), (525, 47712), (529, 47724), (537, 47757), (558, 47781), (563, 47790), (610, 47880), (620, 47913), (654, 48024), (656, 48027), (658, 48030), (659, 48033), (668, 48069), (671, 48087), (686, 48153), (691, 48171), (750, 48348),

Gene: Onyinye_65 Start: 45953, Stop: 47881, Start Num: 43

Candidate Starts for Onyinye_65:

(Start: 43 @45953 has 59 MA's), (58, 45974), (64, 46004), (Start: 93 @46103 has 3 MA's), (110, 46166), (134, 46238), (139, 46247), (159, 46295), (257, 46511), (266, 46532), (278, 46553), (279, 46556), (289, 46568), (304, 46595), (355, 46718), (373, 46754), (387, 46826), (392, 46835), (406, 46868), (419, 46925), (422, 46937), (446, 47006), (449, 47015), (458, 47033), (468, 47057), (493, 47153), (496, 47165), (504, 47198), (523, 47240), (538, 47303), (603, 47408), (667, 47624), (671, 47648), (672, 47651), (683, 47693), (690, 47723), (697, 47747), (739, 47864),

Gene: Orchid_57 Start: 50422, Stop: 48932, Start Num: 201

Candidate Starts for Orchid_57:

(Start: 201 @50422 has 5 MA's), (240, 50329), (244, 50320), (248, 50308), (253, 50293), (261, 50275), (291, 50218), (318, 50146), (320, 50143), (358, 50050), (370, 50017), (376, 49984), (377, 49981), (382, 49960), (405, 49891), (413, 49855), (435, 49768), (468, 49705), (469, 49702), (478, 49672), (502, 49600), (503, 49591), (558, 49468), (561, 49462), (637, 49330), (649, 49288), (661, 49243), (668, 49213), (741, 48961),

Gene: Ottawa_61 Start: 33948, Stop: 35849, Start Num: 96

Candidate Starts for Ottawa_61:

(70, 33855), (Start: 96 @33948 has 2 MA's), (119, 34035), (137, 34089), (157, 34140), (Start: 172 @34188 has 2 MA's), (181, 34212), (234, 34338), (237, 34347), (327, 34533), (350, 34575), (389, 34722), (400, 34743), (413, 34800), (419, 34824), (428, 34866), (439, 34902), (490, 35040), (521, 35142), (570, 35268), (582, 35292), (599, 35334), (681, 35619), (697, 35682), (704, 35712), (734, 35793), (743, 35808),

Gene: OtterstedtS21_60 Start: 40582, Stop: 42495, Start Num: 43

Candidate Starts for OtterstedtS21_60:

(Start: 42 @40579 has 11 MA's), (Start: 43 @40582 has 59 MA's), (Start: 57 @40594 has 1 MA's), (68, 40642), (81, 40675), (98, 40744), (124, 40834), (134, 40861), (139, 40870), (174, 40942), (209, 41029), (229, 41062), (254, 41125), (299, 41215), (371, 41371), (377, 41395), (385, 41437), (404, 41485), (409, 41506), (413, 41527), (426, 41584), (446, 41638), (465, 41680), (480, 41740), (504, 41836), (506, 41839), (596, 42016), (617, 42067), (648, 42157), (656, 42193), (659, 42199), (671, 42253), (682, 42292), (707, 42394), (711, 42409), (718, 42430),

Gene: Outis_73 Start: 56760, Stop: 54685, Start Num: 27

Candidate Starts for Outis_73:

(Start: 27 @56760 has 31 MA's), (61, 56640), (Start: 78 @56595 has 1 MA's), (80, 56592), (156, 56349), (189, 56292), (209, 56241), (239, 56187), (262, 56124), (305, 56034), (307, 56031), (314, 56007), (339, 55971), (390, 55815), (402, 55791), (431, 55668), (468, 55557), (474, 55533), (496, 55434), (514, 55380), (532, 55326), (542, 55284), (573, 55245), (602, 55176), (608, 55143), (619, 55107), (639, 55062), (641, 55050), (656, 54990), (672, 54927), (691, 54846), (716, 54762),

Gene: OverHedge_40 Start: 25901, Stop: 27808, Start Num: 51

Candidate Starts for OverHedge_40:

(Start: 51 @25901 has 32 MA's), (74, 25964), (86, 25985), (95, 26039), (159, 26216), (184, 26261), (257, 26435), (260, 26444), (305, 26534), (326, 26591), (386, 26777), (426, 26912), (429, 26924), (444, 26957), (496, 27086), (534, 27203), (585, 27278), (656, 27512), (658, 27515), (671, 27575), (692, 27665), (701, 27695), (714, 27737), (732, 27788),

Gene: Oxynfrius_29 Start: 22093, Stop: 23484, Start Num: 215

Candidate Starts for Oxynfrius_29:

(Start: 215 @22093 has 84 MA's), (255, 22180), (295, 22252), (297, 22255), (326, 22321), (332, 22339), (340, 22345), (358, 22372), (379, 22429), (389, 22480), (405, 22519), (413, 22555), (418, 22573), (424, 22609), (432, 22630), (440, 22648), (462, 22681), (477, 22720), (491, 22762), (499, 22789), (508, 22813), (518, 22849), (520, 22855), (530, 22888), (534, 22903), (535, 22912), (560, 22957), (578, 22990), (580, 22993), (618, 23098), (621, 23110), (630, 23128), (653, 23218), (664, 23239), (665, 23242), (669, 23266), (670, 23275), (691, 23362), (710, 23413), (721, 23452), (734, 23476),

Gene: P1201_75 Start: 57035, Stop: 55065, Start Num: 55

Candidate Starts for P1201_75:

(Start: 55 @57035 has 8 MA's), (94, 56897), (101, 56873), (145, 56741), (202, 56618), (209, 56600), (212, 56597), (305, 56390), (373, 56249), (444, 55979), (455, 55955), (465, 55934), (478, 55886), (496, 55790), (504, 55757), (526, 55700), (528, 55694), (529, 55691), (610, 55502), (667, 55319), (672, 55292), (686, 55229), (691, 55211),

Gene: PBI1_50 Start: 39660, Stop: 41603, Start Num: 43

Candidate Starts for PBI1_50:

(Start: 43 @39660 has 59 MA's), (59, 39687), (82, 39759), (94, 39813), (110, 39873), (117, 39891), (Start: 118 @39900 has 6 MA's), (138, 39951), (153, 39993), (174, 40029), (209, 40116), (252, 40209), (257, 40224), (266, 40245), (319, 40347), (337, 40380), (348, 40404), (373, 40464), (396, 40551), (416, 40626), (446, 40716), (468, 40767), (469, 40770), (491, 40860), (496, 40878), (504,

40911), (525, 40965), (529, 40977), (534, 40995), (573, 41058), (608, 41142), (648, 41259), (656, 41307), (672, 41370), (691, 41454),

Gene: PHTowN_70 Start: 50156, Stop: 48270, Start Num: 43

Candidate Starts for PHTowN_70:

(33, 50216), (Start: 43 @50156 has 59 MA's), (56, 50141), (74, 50078), (Start: 78 @50069 has 1 MA's), (86, 50057), (107, 49964), (126, 49901), (134, 49883), (159, 49826), (174, 49802), (243, 49643), (257, 49604), (260, 49595), (310, 49487), (360, 49379), (385, 49274), (415, 49175), (429, 49115), (467, 49028), (468, 49025), (504, 48920), (509, 48911), (514, 48899), (571, 48800), (590, 48761), (617, 48683), (620, 48671), (632, 48644), (658, 48554), (663, 48539), (674, 48485), (686, 48428), (723, 48302),

Gene: PLOT_53 Start: 39756, Stop: 41699, Start Num: 43

Candidate Starts for PLOT_53:

(32, 39693), (Start: 43 @39756 has 59 MA's), (59, 39783), (82, 39855), (94, 39909), (110, 39969), (Start: 118 @39996 has 6 MA's), (138, 40047), (153, 40089), (174, 40125), (209, 40212), (252, 40305), (257, 40320), (266, 40341), (319, 40443), (337, 40476), (348, 40500), (373, 40560), (396, 40647), (416, 40722), (446, 40812), (468, 40863), (469, 40866), (491, 40956), (496, 40974), (504, 41007), (529, 41073), (534, 41091), (573, 41154), (608, 41238), (648, 41355), (656, 41403), (672, 41466), (691, 41550),

Gene: Papyrus_66 Start: 47571, Stop: 49331, Start Num: 147

Candidate Starts for Papyrus_66:

(Start: 147 @47571 has 9 MA's), (182, 47640), (225, 47736), (231, 47745), (262, 47826), (283, 47871), (371, 48072), (384, 48120), (402, 48180), (406, 48192), (421, 48258), (458, 48381), (468, 48405), (474, 48429), (496, 48633), (504, 48666), (511, 48681), (525, 48720), (526, 48723), (529, 48732), (573, 48801), (625, 48933), (656, 49056), (658, 49059), (666, 49086), (671, 49116), (673, 49122), (674, 49125), (678, 49143), (682, 49155), (718, 49290), (726, 49317), (728, 49320),

Gene: PartyCup_29 Start: 22162, Stop: 23556, Start Num: 215

Candidate Starts for PartyCup_29:

(Start: 215 @22162 has 84 MA's), (244, 22219), (295, 22324), (332, 22411), (375, 22495), (378, 22498), (379, 22501), (405, 22591), (413, 22627), (415, 22636), (418, 22645), (432, 22702), (440, 22720), (462, 22753), (468, 22765), (491, 22834), (499, 22861), (508, 22885), (518, 22921), (520, 22927), (530, 22960), (534, 22975), (535, 22984), (583, 23074), (609, 23143), (618, 23170), (624, 23188), (630, 23200), (653, 23290), (657, 23296), (662, 23305), (664, 23311), (670, 23347), (691, 23434), (713, 23491), (721, 23524), (734, 23548),

Gene: ParvusTarda_59 Start: 39954, Stop: 41870, Start Num: 42

Candidate Starts for ParvusTarda_59:

(17, 39831), (18, 39840), (19, 39852), (26, 39885), (Start: 42 @39954 has 11 MA's), (Start: 43 @39957 has 59 MA's), (Start: 57 @39969 has 1 MA's), (68, 40017), (81, 40050), (98, 40119), (124, 40209), (134, 40236), (139, 40245), (174, 40317), (209, 40404), (229, 40437), (254, 40500), (299, 40590), (371, 40746), (377, 40770), (385, 40812), (404, 40860), (409, 40881), (413, 40902), (426, 40959), (446, 41013), (465, 41055), (480, 41115), (504, 41211), (506, 41214), (596, 41391), (617, 41442), (648, 41532), (656, 41568), (659, 41574), (671, 41628), (682, 41667), (707, 41769), (711, 41784), (718, 41805),

Gene: Patbob_102 Start: 80820, Stop: 82658, Start Num: 49

Candidate Starts for Patbob_102:

(Start: 49 @80820 has 2 MA's), (100, 80979), (Start: 131 @81075 has 3 MA's), (176, 81135), (189, 81165), (229, 81255), (241, 81285), (259, 81336), (336, 81396), (444, 81792), (453, 81813), (470, 81858), (496, 81921), (504, 81954), (510, 81966), (515, 81978), (529, 82023), (538, 82062), (566,

82119), (569, 82125), (585, 82158), (619, 82227), (649, 82311), (678, 82428), (724, 82602), (746, 82644),

Gene: Patience_76 Start: 49716, Stop: 51749, Start Num: 50

Candidate Starts for Patience_76:

(Start: 50 @49716 has 3 MA's), (59, 49740), (Start: 78 @49803 has 1 MA's), (95, 49869), (108, 49920), (109, 49923), (146, 50031), (159, 50064), (180, 50103), (191, 50127), (219, 50190), (229, 50208), (231, 50211), (239, 50229), (241, 50235), (269, 50304), (282, 50331), (288, 50343), (308, 50376), (352, 50478), (387, 50601), (402, 50631), (426, 50736), (431, 50754), (467, 50844), (468, 50847), (486, 50949), (487, 50988), (493, 51015), (494, 51021), (496, 51027), (511, 51075), (518, 51093), (525, 51120), (529, 51132), (532, 51141), (654, 51429), (686, 51558), (697, 51591), (701, 51609), (717, 51663), (732, 51702),

Gene: Patio_74 Start: 56655, Stop: 54598, Start Num: 27

Candidate Starts for Patio_74:

(5, 56943), (8, 56835), (Start: 27 @56655 has 31 MA's), (146, 56280), (198, 56172), (212, 56139), (239, 56088), (260, 56028), (262, 56025), (296, 55953), (305, 55935), (339, 55872), (340, 55866), (353, 55839), (378, 55773), (385, 55734), (390, 55716), (402, 55692), (416, 55632), (431, 55569), (440, 55536), (468, 55473), (496, 55350), (521, 55281), (525, 55263), (573, 55158), (577, 55149), (602, 55089), (608, 55056), (610, 55050), (619, 55020), (641, 54963), (656, 54903), (666, 54873), (672, 54840), (716, 54675),

Gene: Patos_63 Start: 40959, Stop: 42872, Start Num: 43

Candidate Starts for Patos_63:

(17, 40833), (18, 40842), (19, 40854), (26, 40887), (Start: 42 @40956 has 11 MA's), (Start: 43 @40959 has 59 MA's), (Start: 57 @40971 has 1 MA's), (68, 41019), (98, 41121), (124, 41211), (134, 41238), (139, 41247), (174, 41319), (229, 41439), (254, 41502), (299, 41592), (309, 41619), (371, 41748), (377, 41772), (385, 41814), (404, 41862), (409, 41883), (413, 41904), (426, 41961), (431, 41979), (446, 42015), (465, 42057), (480, 42117), (504, 42213), (506, 42216), (596, 42393), (617, 42444), (648, 42534), (656, 42570), (659, 42576), (671, 42630), (682, 42669), (707, 42771), (711, 42786), (718, 42807), (744, 42864),

Gene: PatrickStar_58 Start: 50421, Stop: 48931, Start Num: 201

Candidate Starts for PatrickStar_58:

(Start: 201 @50421 has 5 MA's), (240, 50328), (244, 50319), (248, 50307), (253, 50292), (261, 50274), (291, 50217), (318, 50145), (320, 50142), (358, 50049), (370, 50016), (376, 49983), (377, 49980), (382, 49959), (405, 49890), (413, 49854), (435, 49767), (468, 49704), (469, 49701), (478, 49671), (502, 49599), (503, 49590), (558, 49467), (561, 49461), (637, 49329), (649, 49287), (661, 49242), (668, 49212), (741, 48960),

Gene: PauloDiaboli_114 Start: 78533, Stop: 76683, Start Num: 53

Candidate Starts for PauloDiaboli_114:

(34, 78602), (35, 78596), (Start: 53 @78533 has 7 MA's), (64, 78488), (68, 78476), (109, 78350), (128, 78287), (176, 78212), (222, 78104), (233, 78086), (257, 78017), (269, 77990), (330, 77930), (377, 77765), (416, 77621), (440, 77534), (453, 77507), (468, 77471), (470, 77462), (494, 77405), (496, 77399), (510, 77354), (515, 77342), (524, 77321), (530, 77297), (538, 77261), (556, 77216), (610, 77132), (612, 77129), (614, 77123), (638, 77060), (666, 76958), (685, 76871), (695, 76829), (709, 76778),

Gene: Penelope2018_53 Start: 39774, Stop: 41717, Start Num: 43

Candidate Starts for Penelope2018_53:

(28, 39705), (Start: 43 @39774 has 59 MA's), (59, 39801), (82, 39873), (94, 39927), (110, 39987), (117, 40005), (Start: 118 @40014 has 6 MA's), (138, 40065), (153, 40107), (174, 40143), (209,

40230), (252, 40323), (257, 40338), (266, 40359), (319, 40461), (337, 40494), (348, 40518), (373, 40578), (396, 40665), (416, 40740), (446, 40830), (468, 40881), (469, 40884), (491, 40974), (496, 40992), (504, 41025), (525, 41079), (529, 41091), (534, 41109), (573, 41172), (608, 41256), (648, 41373), (656, 41421), (672, 41484), (691, 41568),

Gene: PermaG_34 Start: 23404, Stop: 24831, Start Num: 214

Candidate Starts for PermaG_34:

(199, 23362), (Start: 214 @23404 has 3 MA's), (295, 23560), (375, 23758), (378, 23761), (379, 23764), (383, 23782), (409, 23869), (413, 23890), (444, 23989), (473, 24055), (505, 24157), (507, 24160), (520, 24205), (526, 24226), (534, 24253), (540, 24280), (541, 24283), (544, 24295), (560, 24310), (564, 24316), (582, 24352), (598, 24388), (604, 24400), (612, 24430), (642, 24514), (648, 24532), (649, 24535), (670, 24622), (674, 24634), (684, 24673), (691, 24709), (694, 24715), (719, 24790),

Gene: PeteyPab_71 Start: 52509, Stop: 50584, Start Num: 55

Candidate Starts for PeteyPab_71:

(25, 52602), (26, 52596), (Start: 55 @52509 has 8 MA's), (105, 52338), (121, 52284), (209, 52080), (280, 51924), (305, 51873), (307, 51870), (328, 51828), (372, 51741), (373, 51738), (387, 51666), (392, 51657), (494, 51306), (496, 51300), (504, 51267), (641, 50928), (659, 50862), (663, 50850), (667, 50832), (672, 50805), (686, 50742), (697, 50709), (717, 50637),

Gene: Pharpay_40 Start: 25956, Stop: 27863, Start Num: 51

Candidate Starts for Pharpay_40:

(Start: 51 @25956 has 32 MA's), (74, 26019), (86, 26040), (95, 26094), (159, 26271), (184, 26316), (257, 26490), (260, 26499), (305, 26589), (326, 26646), (386, 26832), (426, 26967), (429, 26979), (444, 27012), (496, 27141), (534, 27258), (585, 27333), (656, 27567), (658, 27570), (671, 27630), (692, 27720), (701, 27750), (714, 27792), (732, 27843),

Gene: Phendrix_173 Start: 92821, Stop: 90896, Start Num: 53

Candidate Starts for Phendrix_173:

(Start: 53 @92821 has 7 MA's), (62, 92779), (100, 92665), (124, 92590), (155, 92521), (180, 92452), (343, 92179), (351, 92161), (359, 92137), (368, 92098), (411, 91918), (431, 91834), (440, 91810), (467, 91750), (470, 91738), (478, 91711), (504, 91642), (506, 91639), (548, 91474), (559, 91423), (573, 91399), (608, 91333), (620, 91294), (625, 91282), (660, 91174), (668, 91141), (672, 91120), (681, 91087), (691, 91036), (698, 91018),

Gene: Philon9_55 Start: 53812, Stop: 52235, Start Num: 166

Candidate Starts for Philon9_55:

(Start: 118 @53944 has 6 MA's), (Start: 122 @53932 has 2 MA's), (Start: 166 @53812 has 1 MA's), (178, 53779), (189, 53749), (193, 53743), (240, 53635), (253, 53599), (261, 53575), (265, 53566), (268, 53557), (290, 53509), (291, 53506), (293, 53500), (294, 53497), (353, 53374), (361, 53353), (376, 53293), (399, 53221), (405, 53200), (409, 53185), (410, 53182), (411, 53173), (468, 53014), (481, 52963), (489, 52951), (491, 52945), (497, 52924), (512, 52879), (526, 52834), (537, 52792), (569, 52735), (584, 52705), (585, 52702), (586, 52699), (622, 52645), (665, 52522), (668, 52504), (694, 52387), (695, 52384), (699, 52372), (747, 52252),

Gene: Phomeo_72 Start: 56270, Stop: 54342, Start Num: 69

Candidate Starts for Phomeo_72:

(1, 56906), (4, 56705), (6, 56612), (7, 56600), (9, 56582), (Start: 27 @56408 has 31 MA's), (Start: 69 @56270 has 2 MA's), (76, 56246), (139, 56042), (156, 55997), (209, 55889), (260, 55775), (262, 55772), (305, 55682), (307, 55679), (339, 55619), (385, 55481), (390, 55463), (402, 55439), (431, 55316), (468, 55211), (496, 55085), (514, 55031), (567, 54905), (573, 54896), (584, 54872), (608, 54800), (610, 54794), (619, 54764), (641, 54707), (656, 54647), (672, 54584), (691, 54503),

Gene: Phrampa_96 Start: 82318, Stop: 84156, Start Num: 49

Candidate Starts for Phrampa_96:

(Start: 49 @82318 has 2 MA's), (100, 82477), (Start: 131 @82573 has 3 MA's), (176, 82633), (189, 82663), (229, 82753), (241, 82783), (336, 82894), (423, 83233), (453, 83311), (470, 83356), (496, 83419), (504, 83452), (510, 83464), (515, 83476), (521, 83491), (522, 83494), (529, 83521), (538, 83560), (566, 83617), (569, 83623), (585, 83656), (619, 83725), (649, 83809), (678, 83926), (724, 84100), (746, 84142),

Gene: Phreeze_60 Start: 45650, Stop: 47707, Start Num: 43

Candidate Starts for Phreeze_60:

(Start: 43 @45650 has 59 MA's), (66, 45710), (67, 45713), (Start: 93 @45806 has 3 MA's), (97, 45818), (103, 45839), (142, 45962), (144, 45965), (146, 45974), (159, 46007), (165, 46028), (180, 46076), (229, 46181), (239, 46202), (241, 46208), (262, 46262), (352, 46448), (354, 46460), (365, 46478), (371, 46493), (373, 46499), (468, 46817), (469, 46820), (480, 46865), (493, 46916), (496, 46928), (525, 47018), (529, 47030), (537, 47063), (558, 47087), (563, 47096), (610, 47186), (620, 47219), (654, 47330), (656, 47333), (658, 47336), (659, 47339), (671, 47393), (686, 47459), (691, 47477), (750, 47654),

Gene: PhunaPhoke_40 Start: 25929, Stop: 27836, Start Num: 51

Candidate Starts for PhunaPhoke_40:

(Start: 51 @25929 has 32 MA's), (74, 25992), (86, 26013), (95, 26067), (159, 26244), (184, 26289), (257, 26463), (260, 26472), (305, 26562), (326, 26619), (386, 26805), (426, 26940), (429, 26952), (444, 26985), (496, 27114), (534, 27231), (585, 27306), (656, 27540), (658, 27543), (671, 27603), (692, 27693), (701, 27723), (714, 27765), (732, 27816),

Gene: PierreThree_58 Start: 52668, Stop: 51259, Start Num: 238

Candidate Starts for PierreThree_58:

(102, 53046), (115, 52995), (129, 52944), (149, 52890), (164, 52860), (Start: 172 @52827 has 2 MA's), (175, 52818), (Start: 187 @52791 has 24 MA's), (Start: 238 @52668 has 27 MA's), (253, 52623), (268, 52581), (290, 52533), (291, 52530), (293, 52524), (294, 52521), (301, 52509), (303, 52503), (326, 52455), (327, 52452), (374, 52332), (378, 52314), (397, 52251), (405, 52227), (409, 52212), (430, 52119), (468, 52041), (483, 51981), (489, 51978), (492, 51969), (497, 51951), (511, 51909), (526, 51864), (532, 51846), (586, 51729), (593, 51714), (601, 51693), (648, 51612), (649, 51609), (665, 51552), (666, 51546), (668, 51534), (680, 51483), (684, 51468), (685, 51459), (694, 51420), (698, 51408), (728, 51312), (736, 51297),

Gene: PinkFriday_25 Start: 20614, Stop: 22011, Start Num: 215

Candidate Starts for PinkFriday_25:

(Start: 215 @20614 has 84 MA's), (244, 20674), (281, 20761), (295, 20779), (332, 20866), (340, 20872), (358, 20899), (375, 20950), (379, 20956), (394, 21016), (402, 21037), (405, 21046), (413, 21082), (418, 21100), (419, 21103), (424, 21136), (432, 21157), (440, 21175), (444, 21181), (462, 21208), (473, 21235), (491, 21289), (494, 21301), (499, 21316), (508, 21340), (513, 21355), (515, 21361), (520, 21382), (530, 21415), (534, 21430), (535, 21439), (564, 21490), (598, 21562), (618, 21625), (624, 21643), (649, 21715), (651, 21739), (653, 21745), (655, 21748), (664, 21766), (670, 21802), (691, 21889), (721, 21979), (734, 22003),

Gene: PitaDog_25 Start: 20567, Stop: 21961, Start Num: 215

Candidate Starts for PitaDog_25:

(Start: 215 @20567 has 84 MA's), (244, 20624), (295, 20729), (297, 20732), (332, 20816), (358, 20849), (375, 20900), (379, 20906), (402, 20987), (403, 20990), (405, 20996), (413, 21032), (418, 21050), (419, 21053), (424, 21086), (432, 21107), (491, 21239), (499, 21266), (513, 21305), (518, 21326), (520, 21332), (530, 21365), (534, 21380), (535, 21389), (560, 21434), (580, 21470), (598,

21512), (618, 21575), (624, 21593), (653, 21695), (655, 21698), (664, 21716), (665, 21719), (669, 21743), (670, 21752), (691, 21839), (721, 21929), (734, 21953),

Gene: Pleakley_82 Start: 56142, Stop: 54094, Start Num: 27

Candidate Starts for Pleakley_82:

(Start: 27 @56142 has 31 MA's), (72, 55989), (83, 55974), (103, 55893), (146, 55770), (156, 55740), (209, 55632), (229, 55599), (250, 55548), (262, 55515), (305, 55425), (317, 55392), (339, 55362), (372, 55287), (390, 55206), (409, 55155), (431, 55059), (440, 55026), (457, 54990), (468, 54963), (494, 54846), (496, 54840), (521, 54771), (525, 54753), (529, 54741), (602, 54579), (610, 54546), (619, 54516), (625, 54501), (641, 54459), (672, 54336), (691, 54255), (700, 54231), (716, 54171),

Gene: PokyPuppy_58 Start: 52764, Stop: 51256, Start Num: 195

Candidate Starts for PokyPuppy_58:

(102, 53043), (115, 52992), (129, 52941), (148, 52893), (149, 52887), (164, 52857), (Start: 172 @52824 has 2 MA's), (175, 52815), (Start: 187 @52788 has 24 MA's), (Start: 195 @52764 has 1 MA's), (Start: 238 @52665 has 27 MA's), (253, 52620), (268, 52578), (290, 52530), (291, 52527), (293, 52521), (294, 52518), (303, 52500), (326, 52452), (374, 52329), (378, 52311), (405, 52224), (409, 52209), (430, 52116), (443, 52089), (468, 52038), (483, 51978), (489, 51975), (492, 51966), (497, 51948), (511, 51906), (526, 51861), (586, 51726), (593, 51711), (601, 51690), (642, 51633), (649, 51606), (665, 51549), (666, 51543), (668, 51531), (680, 51480), (685, 51456), (694, 51417), (698, 51405), (699, 51402), (728, 51309), (736, 51294),

Gene: Poland_64 Start: 54025, Stop: 52493, Start Num: 187

Candidate Starts for Poland_64:

(102, 54280), (115, 54229), (149, 54124), (164, 54094), (Start: 172 @54061 has 2 MA's), (175, 54052), (Start: 187 @54025 has 24 MA's), (253, 53857), (268, 53815), (276, 53797), (290, 53767), (294, 53755), (301, 53743), (303, 53737), (310, 53716), (378, 53548), (405, 53461), (409, 53446), (411, 53434), (419, 53404), (430, 53353), (468, 53275), (476, 53251), (479, 53233), (483, 53215), (489, 53212), (492, 53203), (497, 53185), (511, 53143), (526, 53098), (532, 53080), (586, 52963), (593, 52948), (601, 52927), (648, 52846), (649, 52843), (665, 52786), (666, 52780), (668, 52768), (685, 52693), (694, 52654), (698, 52642), (699, 52639), (728, 52546), (736, 52531),

Gene: Polyuki_72 Start: 53158, Stop: 51122, Start Num: 29

Candidate Starts for Polyuki_72:

(10, 53326), (Start: 29 @53158 has 6 MA's), (44, 53092), (61, 53050), (156, 52765), (189, 52708), (209, 52657), (219, 52642), (257, 52552), (262, 52540), (305, 52447), (341, 52375), (373, 52306), (387, 52234), (409, 52177), (468, 51997), (474, 51973), (488, 51910), (496, 51874), (525, 51787), (585, 51655), (601, 51616), (602, 51613), (610, 51568), (656, 51421), (672, 51358), (683, 51316), (691, 51277), (700, 51253),

Gene: PotatoChip_72 Start: 52511, Stop: 50586, Start Num: 55

Candidate Starts for PotatoChip_72:

(25, 52604), (26, 52598), (Start: 55 @52511 has 8 MA's), (105, 52340), (121, 52286), (209, 52082), (280, 51926), (305, 51875), (307, 51872), (328, 51830), (372, 51743), (373, 51740), (387, 51668), (392, 51659), (494, 51308), (496, 51302), (504, 51269), (641, 50930), (659, 50864), (663, 50852), (667, 50834), (672, 50807), (686, 50744), (697, 50711), (717, 50639),

Gene: Potatoes_29 Start: 22153, Stop: 23553, Start Num: 215

Candidate Starts for Potatoes_29:

(Start: 215 @22153 has 84 MA's), (244, 22216), (295, 22321), (297, 22324), (332, 22408), (358, 22441), (375, 22492), (379, 22498), (402, 22579), (403, 22582), (405, 22588), (413, 22624), (418, 22642), (419, 22645), (432, 22699), (462, 22750), (491, 22831), (499, 22858), (511, 22888), (513, 22897), (520, 22924), (530, 22957), (534, 22972), (560, 23026), (572, 23047), (578, 23059), (583,

23071), (657, 23293), (662, 23302), (664, 23308), (670, 23344), (685, 23404), (691, 23431), (721, 23521),

Gene: Potty_40 Start: 25934, Stop: 27841, Start Num: 51

Candidate Starts for Potty_40:

(Start: 51 @25934 has 32 MA's), (74, 25997), (86, 26018), (95, 26072), (159, 26249), (184, 26294), (257, 26468), (260, 26477), (305, 26567), (326, 26624), (386, 26810), (426, 26945), (429, 26957), (444, 26990), (496, 27119), (534, 27236), (585, 27311), (656, 27545), (658, 27548), (671, 27608), (692, 27698), (701, 27728), (714, 27770), (732, 27821),

Gene: Poultruss_39 Start: 26280, Stop: 28187, Start Num: 51

Candidate Starts for Poultruss_39:

(Start: 51 @26280 has 32 MA's), (74, 26343), (86, 26364), (95, 26418), (159, 26595), (184, 26640), (257, 26814), (260, 26823), (305, 26913), (326, 26970), (386, 27156), (426, 27291), (429, 27303), (444, 27336), (496, 27465), (534, 27582), (658, 27894), (671, 27954), (692, 28044), (701, 28074), (714, 28116), (732, 28167),

Gene: Prager_53 Start: 39749, Stop: 41692, Start Num: 43

Candidate Starts for Prager_53:

(Start: 43 @39749 has 59 MA's), (59, 39776), (82, 39848), (94, 39902), (110, 39962), (117, 39980), (Start: 118 @39989 has 6 MA's), (138, 40040), (153, 40082), (174, 40118), (209, 40205), (252, 40298), (257, 40313), (266, 40334), (319, 40436), (337, 40469), (348, 40493), (373, 40553), (396, 40640), (416, 40715), (446, 40805), (468, 40856), (469, 40859), (491, 40949), (496, 40967), (504, 41000), (525, 41054), (529, 41066), (534, 41084), (573, 41147), (608, 41231), (648, 41348), (656, 41396), (672, 41459), (691, 41543),

Gene: Preamble_25 Start: 20577, Stop: 21971, Start Num: 215

Candidate Starts for Preamble_25:

(Start: 215 @20577 has 84 MA's), (244, 20634), (295, 20739), (297, 20742), (332, 20826), (358, 20859), (378, 20913), (379, 20916), (405, 21006), (413, 21042), (419, 21063), (424, 21096), (432, 21117), (462, 21168), (491, 21249), (499, 21276), (513, 21315), (520, 21342), (530, 21375), (534, 21390), (535, 21399), (560, 21444), (580, 21480), (610, 21561), (618, 21585), (624, 21603), (630, 21615), (649, 21675), (651, 21699), (653, 21705), (655, 21708), (664, 21726), (665, 21729), (669, 21753), (670, 21762), (691, 21849), (710, 21900), (721, 21939),

Gene: Predator_60 Start: 44295, Stop: 46307, Start Num: 43

Candidate Starts for Predator_60:

(Start: 43 @44295 has 59 MA's), (56, 44310), (63, 44349), (72, 44379), (75, 44388), (86, 44403), (95, 44457), (97, 44463), (126, 44568), (146, 44619), (153, 44640), (159, 44652), (180, 44721), (189, 44742), (216, 44802), (229, 44826), (239, 44847), (241, 44853), (352, 45093), (354, 45105), (371, 45138), (373, 45144), (402, 45246), (467, 45459), (468, 45462), (480, 45510), (493, 45561), (494, 45567), (496, 45573), (525, 45663), (529, 45675), (592, 45798), (610, 45831), (654, 45975), (660, 45987), (668, 46020), (686, 46104), (691, 46122), (693, 46125), (706, 46173), (723, 46230),

Gene: Puissant_62 Start: 45753, Stop: 47810, Start Num: 43

Candidate Starts for Puissant_62:

(Start: 43 @45753 has 59 MA's), (63, 45807), (67, 45816), (Start: 93 @45909 has 3 MA's), (95, 45915), (103, 45942), (144, 46068), (146, 46077), (159, 46110), (165, 46131), (180, 46179), (189, 46200), (229, 46284), (231, 46287), (239, 46305), (241, 46311), (262, 46365), (352, 46551), (354, 46563), (365, 46581), (371, 46596), (373, 46602), (468, 46920), (469, 46923), (480, 46968), (493, 47019), (496, 47031), (525, 47121), (529, 47133), (537, 47166), (558, 47190), (563, 47199), (610, 47289), (620, 47322), (654, 47433), (656, 47436), (658, 47439), (659, 47442), (671, 47496), (674, 47505), (691, 47580), (700, 47604), (706, 47631), (750, 47757),

Gene: Pumancara_25 Start: 20596, Stop: 21993, Start Num: 215

Candidate Starts for Pumancara_25:

(Start: 215 @20596 has 84 MA's), (244, 20656), (281, 20743), (295, 20761), (332, 20848), (340, 20854), (358, 20881), (375, 20932), (379, 20938), (394, 20998), (402, 21019), (405, 21028), (413, 21064), (418, 21082), (419, 21085), (424, 21118), (432, 21139), (444, 21163), (462, 21190), (473, 21217), (491, 21271), (494, 21283), (499, 21298), (508, 21322), (513, 21337), (520, 21364), (530, 21397), (534, 21412), (535, 21421), (564, 21472), (598, 21544), (610, 21583), (618, 21607), (624, 21625), (649, 21697), (651, 21721), (653, 21727), (655, 21730), (664, 21748), (670, 21784), (691, 21871), (707, 21910), (721, 21961), (734, 21985), (736, 21988),

Gene: Pumpernickel_111 Start: 80095, Stop: 78248, Start Num: 53

Candidate Starts for Pumpernickel_111:

(Start: 53 @80095 has 7 MA's), (128, 79855), (130, 79852), (141, 79831), (176, 79780), (222, 79672), (235, 79651), (338, 79489), (388, 79276), (411, 79210), (416, 79189), (419, 79180), (432, 79123), (440, 79102), (453, 79075), (468, 79039), (470, 79030), (472, 79018), (494, 78973), (496, 78967), (504, 78934), (539, 78823), (540, 78820), (555, 78778), (584, 78727), (638, 78607), (645, 78580), (662, 78520), (693, 78382), (695, 78376), (708, 78328), (726, 78268),

Gene: RAP15_29 Start: 22157, Stop: 23557, Start Num: 215

Candidate Starts for RAP15_29:

(Start: 215 @22157 has 84 MA's), (244, 22220), (295, 22325), (297, 22328), (332, 22412), (358, 22445), (375, 22496), (379, 22502), (402, 22583), (403, 22586), (405, 22592), (413, 22628), (418, 22646), (419, 22649), (432, 22703), (462, 22754), (491, 22835), (499, 22862), (511, 22892), (513, 22901), (520, 22928), (530, 22961), (534, 22976), (560, 23030), (572, 23051), (578, 23063), (583, 23075), (657, 23297), (662, 23306), (664, 23312), (670, 23348), (685, 23408), (691, 23435), (721, 23525),

Gene: Racecar_102 Start: 80738, Stop: 82576, Start Num: 49

Candidate Starts for Racecar_102:

(Start: 49 @80738 has 2 MA's), (73, 80819), (100, 80897), (Start: 131 @80993 has 3 MA's), (176, 81053), (189, 81083), (241, 81203), (259, 81254), (336, 81314), (423, 81653), (444, 81710), (453, 81731), (470, 81776), (494, 81833), (496, 81839), (504, 81872), (510, 81884), (515, 81896), (529, 81941), (538, 81980), (566, 82037), (569, 82043), (585, 82076), (619, 82145), (649, 82229), (678, 82346), (724, 82520), (746, 82562),

Gene: Rachella_40 Start: 25937, Stop: 27844, Start Num: 51

Candidate Starts for Rachella_40:

(Start: 51 @25937 has 32 MA's), (74, 26000), (86, 26021), (95, 26075), (159, 26252), (184, 26297), (257, 26471), (260, 26480), (305, 26570), (326, 26627), (386, 26813), (426, 26948), (429, 26960), (444, 26993), (496, 27122), (534, 27239), (585, 27314), (656, 27548), (658, 27551), (671, 27611), (692, 27701), (701, 27731), (714, 27773), (732, 27824),

Gene: Ranch_60 Start: 39414, Stop: 41327, Start Num: 43

Candidate Starts for Ranch_60:

(39, 39399), (Start: 42 @39411 has 11 MA's), (Start: 43 @39414 has 59 MA's), (Start: 57 @39426 has 1 MA's), (68, 39474), (81, 39507), (98, 39576), (124, 39666), (134, 39693), (139, 39702), (174, 39774), (229, 39894), (254, 39957), (299, 40047), (309, 40074), (371, 40203), (377, 40227), (385, 40269), (404, 40317), (406, 40323), (409, 40338), (413, 40359), (426, 40416), (446, 40470), (465, 40512), (480, 40572), (504, 40668), (506, 40671), (596, 40848), (617, 40899), (648, 40989), (656, 41025), (659, 41031), (671, 41085), (682, 41124), (707, 41226), (711, 41241), (718, 41262),

Gene: Rasovi_33 Start: 23465, Stop: 24892, Start Num: 214

Candidate Starts for Rasovi_33:

(200, 23426), (207, 23447), (Start: 214 @23465 has 3 MA's), (378, 23822), (394, 23885), (409, 23930), (413, 23951), (505, 24218), (520, 24266), (526, 24287), (534, 24314), (540, 24341), (541, 24344), (560, 24371), (564, 24377), (582, 24413), (612, 24491), (618, 24512), (624, 24530), (630, 24542), (653, 24626), (670, 24683), (674, 24695), (684, 24734), (691, 24770), (694, 24776),

Gene: RcigaStruga_29 Start: 22127, Stop: 23518, Start Num: 215

Candidate Starts for RcigaStruga_29:

(Start: 215 @22127 has 84 MA's), (255, 22214), (295, 22286), (297, 22289), (326, 22355), (332, 22373), (340, 22379), (358, 22406), (379, 22463), (402, 22544), (405, 22553), (413, 22589), (418, 22607), (424, 22643), (432, 22664), (440, 22682), (462, 22715), (477, 22754), (491, 22796), (499, 22823), (508, 22847), (518, 22883), (520, 22889), (530, 22922), (534, 22937), (535, 22946), (560, 22991), (578, 23024), (580, 23027), (610, 23108), (621, 23144), (624, 23150), (630, 23162), (653, 23252), (664, 23273), (665, 23276), (669, 23300), (670, 23309), (691, 23396), (710, 23447), (721, 23486), (734, 23510),

Gene: RemRem_60 Start: 51466, Stop: 49934, Start Num: 187

Candidate Starts for RemRem_60:

(102, 51721), (115, 51670), (129, 51619), (149, 51565), (164, 51535), (Start: 172 @51502 has 2 MA's), (175, 51493), (Start: 187 @51466 has 24 MA's), (253, 51298), (268, 51256), (290, 51208), (294, 51196), (301, 51184), (303, 51178), (310, 51157), (326, 51130), (378, 50989), (405, 50902), (409, 50887), (411, 50875), (419, 50845), (430, 50794), (443, 50767), (468, 50716), (479, 50674), (483, 50656), (489, 50653), (497, 50626), (511, 50584), (526, 50539), (586, 50404), (593, 50389), (601, 50368), (642, 50311), (648, 50287), (649, 50284), (665, 50227), (666, 50221), (667, 50215), (668, 50209), (680, 50158), (685, 50134), (694, 50095), (698, 50083), (699, 50080), (728, 49987), (736, 49972), (747, 49951),

Gene: Reynauld_56 Start: 50676, Stop: 49183, Start Num: 203

Candidate Starts for Reynauld_56:

(Start: 203 @50676 has 3 MA's), (Start: 217 @50640 has 3 MA's), (236, 50607), (Start: 238 @50598 has 27 MA's), (240, 50589), (244, 50580), (246, 50571), (253, 50553), (282, 50493), (290, 50481), (293, 50472), (362, 50325), (376, 50268), (382, 50244), (403, 50181), (430, 50067), (467, 49992), (468, 49989), (476, 49965), (479, 49947), (489, 49926), (501, 49887), (503, 49875), (504, 49872), (584, 49695), (597, 49659), (668, 49446), (677, 49404), (691, 49338), (714, 49263), (718, 49248),

Gene: Rie18_40 Start: 25493, Stop: 27400, Start Num: 51

Candidate Starts for Rie18_40:

(15, 25319), (Start: 51 @25493 has 32 MA's), (74, 25556), (86, 25577), (95, 25631), (150, 25793), (159, 25808), (184, 25853), (257, 26027), (260, 26036), (305, 26126), (307, 26129), (320, 26168), (326, 26183), (378, 26333), (386, 26369), (420, 26477), (426, 26504), (429, 26516), (444, 26549), (496, 26678), (534, 26795), (658, 27107), (671, 27167), (692, 27257), (701, 27287), (702, 27293), (714, 27329), (732, 27380),

Gene: RikSengupta_42 Start: 26725, Stop: 28659, Start Num: 54

Candidate Starts for RikSengupta_42:

(Start: 23 @26629 has 1 MA's), (Start: 50 @26719 has 3 MA's), (Start: 54 @26725 has 3 MA's), (95, 26872), (100, 26890), (159, 27049), (219, 27175), (257, 27265), (260, 27274), (305, 27364), (320, 27406), (331, 27436), (377, 27568), (429, 27754), (436, 27772), (444, 27787), (468, 27844), (482, 27904), (518, 27976), (567, 28093), (579, 28114), (605, 28180), (609, 28210), (639, 28288), (658, 28366), (671, 28426), (682, 28465), (692, 28516), (699, 28534), (733, 28642),

Gene: Riovina_26 Start: 21745, Stop: 23139, Start Num: 215

Candidate Starts for Riovina_26:

(Start: 215 @21745 has 84 MA's), (244, 21802), (281, 21889), (295, 21907), (297, 21910), (332, 21994), (358, 22027), (375, 22078), (379, 22084), (394, 22144), (405, 22174), (413, 22210), (418, 22228), (432, 22285), (440, 22303), (444, 22309), (462, 22336), (491, 22417), (499, 22444), (508, 22468), (513, 22483), (520, 22510), (530, 22543), (534, 22558), (598, 22690), (609, 22726), (618, 22753), (621, 22765), (630, 22783), (653, 22873), (657, 22879), (664, 22894), (665, 22897), (670, 22930), (685, 22990), (691, 23017), (713, 23074), (721, 23107), (734, 23131),

Gene: Riparian_68 Start: 47408, Stop: 49168, Start Num: 147

Candidate Starts for Riparian_68:

(Start: 147 @47408 has 9 MA's), (182, 47477), (225, 47573), (231, 47582), (262, 47663), (283, 47708), (371, 47909), (384, 47957), (402, 48017), (406, 48029), (421, 48095), (458, 48218), (468, 48242), (474, 48266), (496, 48470), (504, 48503), (511, 48518), (525, 48557), (526, 48560), (529, 48569), (573, 48638), (625, 48770), (656, 48893), (658, 48896), (666, 48923), (671, 48953), (673, 48959), (674, 48962), (678, 48980), (682, 48992), (718, 49127), (728, 49157),

Gene: Riverdale_29 Start: 22087, Stop: 23487, Start Num: 215

Candidate Starts for Riverdale_29:

(Start: 215 @22087 has 84 MA's), (244, 22150), (295, 22255), (297, 22258), (332, 22342), (358, 22375), (375, 22426), (379, 22432), (402, 22513), (403, 22516), (405, 22522), (413, 22558), (418, 22576), (419, 22579), (424, 22612), (432, 22633), (440, 22651), (462, 22684), (491, 22765), (499, 22792), (511, 22822), (513, 22831), (520, 22858), (530, 22891), (534, 22906), (560, 22960), (572, 22981), (578, 22993), (583, 23005), (657, 23227), (662, 23236), (664, 23242), (670, 23278), (685, 23338), (691, 23365), (721, 23455),

Gene: RobinSparkles_61 Start: 50974, Stop: 49484, Start Num: 201

Candidate Starts for RobinSparkles_61:

(Start: 201 @50974 has 5 MA's), (240, 50881), (244, 50872), (248, 50860), (253, 50845), (261, 50827), (291, 50770), (318, 50698), (320, 50695), (358, 50602), (370, 50569), (376, 50536), (377, 50533), (382, 50512), (405, 50443), (413, 50407), (435, 50320), (468, 50257), (469, 50254), (478, 50224), (502, 50152), (503, 50143), (558, 50020), (561, 50014), (637, 49882), (649, 49840), (661, 49795), (668, 49765), (741, 49513),

Gene: Rooney_70 Start: 50294, Stop: 48408, Start Num: 43

Candidate Starts for Rooney_70:

(Start: 43 @50294 has 59 MA's), (56, 50279), (74, 50216), (Start: 78 @50207 has 1 MA's), (107, 50102), (120, 50063), (126, 50039), (159, 49964), (174, 49940), (243, 49781), (257, 49742), (260, 49733), (310, 49625), (360, 49517), (373, 49469), (404, 49364), (415, 49313), (429, 49253), (459, 49187), (467, 49166), (468, 49163), (504, 49058), (509, 49049), (514, 49037), (571, 48938), (617, 48821), (620, 48809), (632, 48782), (658, 48692), (663, 48677), (674, 48623), (686, 48566), (718, 48458), (723, 48440),

Gene: Rope_66 Start: 47562, Stop: 49322, Start Num: 147

Candidate Starts for Rope_66:

(Start: 147 @47562 has 9 MA's), (182, 47631), (225, 47727), (231, 47736), (262, 47817), (283, 47862), (371, 48063), (384, 48111), (402, 48171), (406, 48183), (421, 48249), (458, 48372), (468, 48396), (474, 48420), (496, 48624), (504, 48657), (511, 48672), (525, 48711), (526, 48714), (529, 48723), (573, 48792), (625, 48924), (656, 49047), (658, 49050), (666, 49077), (671, 49107), (673, 49113), (674, 49116), (678, 49134), (682, 49146), (718, 49281), (726, 49308), (728, 49311),

Gene: RoyalG_59 Start: 52241, Stop: 50709, Start Num: 187

Candidate Starts for RoyalG_59:

(102, 52496), (115, 52445), (149, 52340), (164, 52310), (Start: 172 @52277 has 2 MA's), (175, 52268), (Start: 187 @52241 has 24 MA's), (Start: 238 @52118 has 27 MA's), (253, 52073), (268,

52031), (290, 51983), (291, 51980), (293, 51974), (294, 51971), (303, 51953), (310, 51932), (326, 51905), (374, 51782), (378, 51764), (405, 51677), (409, 51662), (430, 51569), (468, 51491), (476, 51467), (483, 51431), (497, 51401), (511, 51359), (526, 51314), (586, 51179), (593, 51164), (601, 51143), (649, 51059), (665, 51002), (666, 50996), (668, 50984), (680, 50933), (685, 50909), (694, 50870), (698, 50858), (699, 50855), (728, 50762), (736, 50747),

Gene: Rozby_29 Start: 22088, Stop: 23488, Start Num: 215

Candidate Starts for Rozby_29:

(Start: 215 @22088 has 84 MA's), (244, 22151), (295, 22256), (297, 22259), (332, 22343), (358, 22376), (375, 22427), (379, 22433), (402, 22514), (403, 22517), (405, 22523), (413, 22559), (418, 22577), (419, 22580), (424, 22613), (432, 22634), (440, 22652), (462, 22685), (491, 22766), (499, 22793), (511, 22823), (513, 22832), (520, 22859), (530, 22892), (534, 22907), (560, 22961), (572, 22982), (578, 22994), (583, 23006), (657, 23228), (662, 23237), (664, 23243), (670, 23279), (685, 23339), (691, 23366), (721, 23456),

Gene: Rumi_61 Start: 39105, Stop: 41018, Start Num: 43

Candidate Starts for Rumi_61:

(Start: 42 @39102 has 11 MA's), (Start: 43 @39105 has 59 MA's), (Start: 57 @39117 has 1 MA's), (68, 39165), (81, 39198), (124, 39357), (134, 39384), (139, 39393), (174, 39465), (229, 39585), (254, 39648), (299, 39738), (309, 39765), (371, 39894), (377, 39918), (385, 39960), (387, 39972), (396, 39987), (404, 40008), (409, 40029), (413, 40050), (426, 40107), (431, 40125), (446, 40161), (465, 40203), (480, 40263), (504, 40359), (506, 40362), (596, 40539), (617, 40590), (648, 40680), (656, 40716), (659, 40722), (671, 40776), (682, 40815), (707, 40917), (711, 40932), (718, 40953),

Gene: SBlackberry_33 Start: 23236, Stop: 24663, Start Num: 215

Candidate Starts for SBlackberry_33:

(Start: 215 @23236 has 84 MA's), (365, 23554), (378, 23593), (394, 23656), (409, 23701), (413, 23722), (444, 23821), (505, 23989), (520, 24037), (526, 24058), (534, 24085), (540, 24112), (560, 24142), (562, 24145), (564, 24148), (582, 24184), (612, 24262), (642, 24346), (648, 24364), (649, 24367), (670, 24454), (674, 24466), (684, 24505), (691, 24541), (694, 24547), (710, 24592), (719, 24622),

Gene: SJReid_108 Start: 73084, Stop: 74940, Start Num: 49

Candidate Starts for SJReid_108:

(Start: 49 @73084 has 2 MA's), (Start: 131 @73342 has 3 MA's), (134, 73348), (162, 73381), (168, 73390), (189, 73450), (196, 73465), (229, 73540), (241, 73570), (259, 73621), (336, 73681), (416, 73984), (453, 74098), (470, 74143), (494, 74200), (496, 74206), (504, 74239), (510, 74251), (526, 74299), (529, 74308), (532, 74317), (554, 74386), (585, 74443), (619, 74512), (647, 74590), (649, 74596), (672, 74689), (678, 74713), (698, 74794), (708, 74833), (722, 74884),

Gene: Sadboi_61 Start: 41296, Stop: 43209, Start Num: 43

Candidate Starts for Sadboi_61:

(Start: 42 @41293 has 11 MA's), (Start: 43 @41296 has 59 MA's), (Start: 57 @41308 has 1 MA's), (68, 41356), (81, 41389), (98, 41458), (124, 41548), (134, 41575), (139, 41584), (174, 41656), (209, 41743), (229, 41776), (254, 41839), (299, 41929), (309, 41956), (371, 42085), (377, 42109), (385, 42151), (404, 42199), (409, 42220), (413, 42241), (426, 42298), (446, 42352), (465, 42394), (480, 42454), (504, 42550), (506, 42553), (596, 42730), (617, 42781), (648, 42871), (656, 42907), (659, 42913), (671, 42967), (682, 43006), (707, 43108), (711, 43123), (718, 43144),

Gene: Salgado_95 Start: 54910, Stop: 56574, Start Num: 169

Candidate Starts for Salgado_95:

(Start: 169 @54910 has 8 MA's), (192, 54973), (Start: 213 @55033 has 1 MA's), (234, 55069), (249, 55114), (310, 55234), (355, 55327), (364, 55351), (366, 55363), (381, 55417), (395, 55468), (407,

55504), (412, 55531), (419, 55558), (428, 55600), (475, 55717), (500, 55795), (504, 55813), (521, 55864), (531, 55897), (538, 55930), (568, 55987), (582, 56014), (599, 56056), (616, 56113), (625, 56137), (636, 56167), (642, 56185), (649, 56212), (674, 56314), (681, 56341), (684, 56353), (701, 56422), (703, 56431), (713, 56461), (715, 56467), (728, 56503), (736, 56518), (745, 56533), (749, 56554),

Gene: Sam12_58 Start: 51466, Stop: 49934, Start Num: 187

Candidate Starts for Sam12_58:

(102, 51721), (115, 51670), (129, 51619), (149, 51565), (164, 51535), (Start: 172 @51502 has 2 MA's), (175, 51493), (Start: 187 @51466 has 24 MA's), (253, 51298), (268, 51256), (290, 51208), (294, 51196), (301, 51184), (303, 51178), (310, 51157), (326, 51130), (378, 50989), (405, 50902), (409, 50887), (411, 50875), (419, 50845), (430, 50794), (443, 50767), (468, 50716), (479, 50674), (483, 50656), (489, 50653), (497, 50626), (511, 50584), (526, 50539), (586, 50404), (593, 50389), (601, 50368), (642, 50311), (648, 50287), (649, 50284), (665, 50227), (666, 50221), (667, 50215), (668, 50209), (680, 50158), (685, 50134), (694, 50095), (698, 50083), (699, 50080), (728, 49987), (736, 49972), (747, 49951),

Gene: Sampudon_60 Start: 41637, Stop: 43553, Start Num: 42

Candidate Starts for Sampudon_60:

(Start: 42 @41637 has 11 MA's), (Start: 43 @41640 has 59 MA's), (Start: 57 @41652 has 1 MA's), (68, 41700), (98, 41802), (124, 41892), (134, 41919), (139, 41928), (174, 42000), (229, 42120), (254, 42183), (299, 42273), (309, 42300), (371, 42429), (377, 42453), (385, 42495), (404, 42543), (409, 42564), (413, 42585), (426, 42642), (446, 42696), (465, 42738), (480, 42798), (504, 42894), (506, 42897), (596, 43074), (617, 43125), (647, 43212), (648, 43215), (656, 43251), (659, 43257), (671, 43311), (682, 43350), (707, 43452), (711, 43467), (718, 43488),

Gene: Sapo_34 Start: 32116, Stop: 30710, Start Num: 221

Candidate Starts for Sapo_34:

(133, 32353), (135, 32350), (173, 32239), (179, 32224), (Start: 221 @32116 has 12 MA's), (253, 32038), (265, 32011), (290, 31981), (291, 31978), (383, 31771), (389, 31738), (462, 31531), (513, 31384), (517, 31369), (575, 31228), (624, 31093), (638, 31063), (639, 31060), (653, 30991), (655, 30988), (665, 30967), (671, 30931), (672, 30928), (694, 30841), (698, 30829), (721, 30742),

Gene: Savage2526_29 Start: 22151, Stop: 23551, Start Num: 215

Candidate Starts for Savage2526_29:

(Start: 215 @22151 has 84 MA's), (244, 22214), (295, 22319), (297, 22322), (332, 22406), (358, 22439), (375, 22490), (379, 22496), (402, 22577), (403, 22580), (405, 22586), (413, 22622), (418, 22640), (419, 22643), (432, 22697), (462, 22748), (491, 22829), (499, 22856), (511, 22886), (513, 22895), (520, 22922), (530, 22955), (534, 22970), (560, 23024), (572, 23045), (578, 23057), (583, 23069), (657, 23291), (662, 23300), (664, 23306), (670, 23342), (685, 23402), (691, 23429), (721, 23519),

Gene: Scuttle_29 Start: 22156, Stop: 23556, Start Num: 215

Candidate Starts for Scuttle_29:

(Start: 215 @22156 has 84 MA's), (244, 22219), (295, 22324), (297, 22327), (332, 22411), (358, 22444), (375, 22495), (379, 22501), (402, 22582), (403, 22585), (405, 22591), (413, 22627), (418, 22645), (419, 22648), (424, 22681), (432, 22702), (462, 22753), (491, 22834), (499, 22861), (513, 22900), (520, 22927), (530, 22960), (534, 22975), (560, 23029), (572, 23050), (578, 23062), (583, 23074), (624, 23188), (657, 23296), (662, 23305), (664, 23311), (670, 23347), (685, 23407), (691, 23434), (721, 23524),

Gene: Send513_66 Start: 47939, Stop: 49699, Start Num: 147

Candidate Starts for Send513_66:

(Start: 147 @47939 has 9 MA's), (182, 48008), (225, 48104), (231, 48113), (262, 48194), (283, 48239), (371, 48440), (384, 48488), (402, 48548), (406, 48560), (421, 48626), (458, 48749), (468, 48773), (474, 48797), (496, 49001), (504, 49034), (511, 49049), (525, 49088), (526, 49091), (529, 49100), (573, 49169), (625, 49301), (656, 49424), (658, 49427), (666, 49454), (671, 49484), (673, 49490), (674, 49493), (678, 49511), (682, 49523), (718, 49658), (728, 49688),

Gene: Sergei_26 Start: 21732, Stop: 23129, Start Num: 215

Candidate Starts for Sergei_26:

(Start: 215 @21732 has 84 MA's), (244, 21792), (281, 21879), (295, 21897), (297, 21900), (332, 21984), (340, 21990), (358, 22017), (375, 22068), (379, 22074), (389, 22125), (394, 22134), (402, 22155), (405, 22164), (413, 22200), (419, 22221), (424, 22254), (432, 22275), (440, 22293), (444, 22299), (462, 22326), (468, 22338), (473, 22353), (491, 22407), (508, 22458), (511, 22464), (513, 22473), (515, 22479), (520, 22500), (530, 22533), (534, 22548), (535, 22557), (598, 22680), (610, 22719), (618, 22743), (621, 22755), (653, 22863), (657, 22869), (662, 22878), (664, 22884), (670, 22920), (691, 23007), (721, 23097), (734, 23121),

Gene: ShakeNBake_70 Start: 50183, Stop: 48297, Start Num: 43

Candidate Starts for ShakeNBake_70:

(33, 50243), (Start: 43 @50183 has 59 MA's), (56, 50168), (74, 50105), (Start: 78 @50096 has 1 MA's), (86, 50084), (107, 49991), (126, 49928), (134, 49910), (159, 49853), (174, 49829), (243, 49670), (257, 49631), (260, 49622), (310, 49514), (360, 49406), (385, 49301), (415, 49202), (429, 49142), (467, 49055), (468, 49052), (504, 48947), (509, 48938), (514, 48926), (571, 48827), (590, 48788), (617, 48710), (620, 48698), (632, 48671), (658, 48581), (663, 48566), (674, 48512), (686, 48455), (723, 48329),

Gene: Shelley_57 Start: 52086, Stop: 50674, Start Num: 238

Candidate Starts for Shelley_57:

(102, 52434), (143, 52305), (Start: 172 @52215 has 2 MA's), (Start: 238 @52086 has 27 MA's), (253, 52041), (290, 51951), (291, 51948), (293, 51942), (303, 51921), (332, 51858), (365, 51780), (374, 51750), (378, 51732), (405, 51645), (409, 51630), (419, 51588), (445, 51507), (468, 51459), (479, 51417), (483, 51399), (489, 51396), (497, 51369), (513, 51318), (526, 51282), (539, 51231), (586, 51147), (594, 51126), (665, 50970), (666, 50964), (668, 50952), (698, 50826), (736, 50712),

Gene: Shrooms_93 Start: 54534, Stop: 56189, Start Num: 169

Candidate Starts for Shrooms_93:

(Start: 169 @54534 has 8 MA's), (192, 54597), (Start: 195 @54606 has 1 MA's), (Start: 203 @54627 has 3 MA's), (232, 54690), (299, 54828), (310, 54858), (355, 54951), (366, 54987), (381, 55041), (395, 55092), (403, 55116), (407, 55128), (412, 55155), (417, 55176), (419, 55182), (428, 55224), (475, 55341), (500, 55419), (504, 55437), (521, 55488), (531, 55521), (538, 55554), (564, 55602), (582, 55638), (599, 55680), (636, 55791), (642, 55809), (649, 55836), (652, 55863), (681, 55965), (701, 56046), (703, 56055), (704, 56058), (713, 56085), (715, 56091), (728, 56127), (736, 56142), (749, 56178),

Gene: Sienna_50 Start: 36692, Stop: 38746, Start Num: 48

Candidate Starts for Sienna_50:

(Start: 48 @36692 has 13 MA's), (60, 36716), (84, 36779), (104, 36863), (113, 36905), (208, 37127), (229, 37163), (260, 37238), (278, 37277), (306, 37319), (312, 37337), (319, 37358), (325, 37370), (354, 37430), (361, 37445), (371, 37463), (387, 37541), (396, 37556), (398, 37559), (409, 37598), (413, 37619), (444, 37721), (468, 37778), (472, 37799), (474, 37802), (478, 37814), (491, 37862), (493, 37868), (506, 37916), (520, 37949), (526, 37973), (532, 37991), (538, 38021), (550, 38144), (558, 38177), (565, 38189), (573, 38204), (592, 38243), (608, 38288), (617, 38315), (646, 38399), (663, 38462), (671, 38504), (674, 38513), (676, 38522), (686, 38570), (690, 38579), (691, 38591), (697, 38606), (708, 38648),

Gene: SirHarley_54 Start: 39905, Stop: 41848, Start Num: 43

Candidate Starts for SirHarley_54:

(32, 39842), (Start: 43 @39905 has 59 MA's), (59, 39932), (82, 40004), (94, 40058), (110, 40118), (Start: 118 @40145 has 6 MA's), (138, 40196), (153, 40238), (174, 40274), (209, 40361), (252, 40454), (257, 40469), (266, 40490), (319, 40592), (337, 40625), (348, 40649), (373, 40709), (396, 40796), (416, 40871), (446, 40961), (468, 41012), (469, 41015), (491, 41105), (496, 41123), (504, 41156), (529, 41222), (534, 41240), (573, 41303), (608, 41387), (648, 41504), (656, 41552), (672, 41615), (691, 41699),

Gene: Sixama_168 Start: 96248, Stop: 94338, Start Num: 48

Candidate Starts for Sixama_168:

(Start: 48 @96248 has 13 MA's), (58, 96227), (60, 96218), (62, 96200), (77, 96155), (86, 96140), (92, 96116), (100, 96086), (128, 95996), (152, 95951), (158, 95939), (180, 95870), (231, 95753), (241, 95726), (343, 95597), (371, 95480), (383, 95432), (406, 95363), (453, 95201), (468, 95165), (470, 95156), (474, 95141), (478, 95129), (496, 95093), (504, 95060), (528, 94985), (532, 94973), (541, 94934), (551, 94883), (625, 94721), (681, 94526), (693, 94469), (705, 94424),

Gene: Skysand_75 Start: 57318, Stop: 55261, Start Num: 27

Candidate Starts for Skysand_75:

(5, 57606), (8, 57498), (Start: 27 @57318 has 31 MA's), (146, 56943), (212, 56802), (239, 56751), (260, 56691), (262, 56688), (296, 56616), (305, 56598), (339, 56535), (340, 56529), (378, 56436), (385, 56397), (390, 56379), (402, 56355), (431, 56232), (440, 56199), (468, 56136), (496, 56013), (521, 55944), (525, 55926), (573, 55821), (602, 55752), (610, 55713), (618, 55689), (619, 55683), (641, 55626), (656, 55566), (666, 55536), (672, 55503), (716, 55338), (732, 55296),

Gene: Snakehole_40 Start: 25114, Stop: 27021, Start Num: 51

Candidate Starts for Snakehole_40:

(Start: 51 @25114 has 32 MA's), (74, 25177), (86, 25198), (95, 25252), (159, 25429), (184, 25474), (257, 25648), (260, 25657), (305, 25747), (326, 25804), (386, 25990), (426, 26125), (429, 26137), (444, 26170), (496, 26299), (534, 26416), (656, 26725), (658, 26728), (671, 26788), (692, 26878), (701, 26908), (714, 26950), (732, 27001),

Gene: Sombrero_60 Start: 52033, Stop: 50501, Start Num: 187

Candidate Starts for Sombrero_60:

(102, 52288), (115, 52237), (149, 52132), (164, 52102), (Start: 172 @52069 has 2 MA's), (175, 52060), (Start: 187 @52033 has 24 MA's), (253, 51865), (268, 51823), (290, 51775), (294, 51763), (301, 51751), (303, 51745), (310, 51724), (378, 51556), (405, 51469), (409, 51454), (411, 51442), (419, 51412), (430, 51361), (468, 51283), (476, 51259), (479, 51241), (483, 51223), (489, 51220), (492, 51211), (497, 51193), (526, 51106), (586, 50971), (593, 50956), (601, 50935), (648, 50854), (649, 50851), (665, 50794), (666, 50788), (668, 50776), (680, 50725), (685, 50701), (694, 50662), (698, 50650), (699, 50647), (728, 50554), (736, 50539), (747, 50518),

Gene: Sparcetus_42 Start: 26604, Stop: 28538, Start Num: 54

Candidate Starts for Sparcetus_42:

(Start: 23 @26508 has 1 MA's), (Start: 50 @26598 has 3 MA's), (Start: 54 @26604 has 3 MA's), (95, 26751), (100, 26769), (159, 26928), (219, 27054), (257, 27144), (260, 27153), (305, 27243), (331, 27315), (377, 27447), (429, 27633), (436, 27651), (444, 27666), (468, 27723), (482, 27783), (518, 27855), (579, 27993), (605, 28059), (609, 28089), (610, 28092), (639, 28167), (658, 28245), (671, 28305), (682, 28344), (692, 28395), (699, 28413), (733, 28521),

Gene: Squibbles_58 Start: 52329, Stop: 50797, Start Num: 187

Candidate Starts for Squibbles_58:

(102, 52584), (115, 52533), (129, 52482), (149, 52428), (164, 52398), (Start: 172 @52365 has 2 MA's), (175, 52356), (Start: 187 @52329 has 24 MA's), (253, 52161), (268, 52119), (290, 52071), (294, 52059), (301, 52047), (303, 52041), (310, 52020), (326, 51993), (378, 51852), (405, 51765), (409, 51750), (411, 51738), (419, 51708), (430, 51657), (443, 51630), (468, 51579), (479, 51537), (483, 51519), (489, 51516), (497, 51489), (511, 51447), (526, 51402), (586, 51267), (593, 51252), (601, 51231), (642, 51174), (649, 51147), (665, 51090), (666, 51084), (667, 51078), (668, 51072), (680, 51021), (685, 50997), (694, 50958), (698, 50946), (699, 50943), (728, 50850), (736, 50835), (747, 50814),

Gene: StarStruck_73 Start: 56760, Stop: 54685, Start Num: 27

Candidate Starts for StarStruck_73:

(Start: 27 @56760 has 31 MA's), (61, 56640), (Start: 78 @56595 has 1 MA's), (80, 56592), (156, 56349), (189, 56292), (209, 56241), (239, 56187), (262, 56124), (305, 56034), (307, 56031), (314, 56007), (339, 55971), (390, 55815), (402, 55791), (431, 55668), (468, 55557), (474, 55533), (496, 55434), (514, 55380), (532, 55326), (542, 55284), (573, 55245), (602, 55176), (608, 55143), (619, 55107), (639, 55062), (641, 55050), (656, 54990), (672, 54927), (691, 54846), (716, 54762),

Gene: SteveFrench_58 Start: 52481, Stop: 50949, Start Num: 187

Candidate Starts for SteveFrench_58:

(102, 52736), (115, 52685), (149, 52580), (164, 52550), (Start: 172 @52517 has 2 MA's), (175, 52508), (Start: 187 @52481 has 24 MA's), (Start: 238 @52358 has 27 MA's), (253, 52313), (268, 52271), (290, 52223), (291, 52220), (293, 52214), (294, 52211), (303, 52193), (310, 52172), (326, 52145), (374, 52022), (378, 52004), (405, 51917), (409, 51902), (430, 51809), (468, 51731), (476, 51707), (483, 51671), (497, 51641), (511, 51599), (526, 51554), (586, 51419), (593, 51404), (601, 51383), (649, 51299), (665, 51242), (666, 51236), (668, 51224), (680, 51173), (685, 51149), (694, 51110), (698, 51098), (699, 51095), (728, 51002), (736, 50987),

Gene: Sticker17_57 Start: 52601, Stop: 51189, Start Num: 238

Candidate Starts for Sticker17_57:

(102, 52949), (143, 52820), (171, 52733), (Start: 172 @52730 has 2 MA's), (Start: 238 @52601 has 27 MA's), (253, 52556), (290, 52466), (291, 52463), (293, 52457), (303, 52436), (332, 52373), (374, 52265), (378, 52247), (405, 52160), (409, 52145), (419, 52103), (445, 52022), (468, 51974), (479, 51932), (483, 51914), (489, 51911), (497, 51884), (513, 51833), (526, 51797), (539, 51746), (586, 51662), (594, 51641), (665, 51485), (666, 51479), (668, 51467), (698, 51341), (736, 51227),

Gene: Stickynote_71 Start: 52712, Stop: 50787, Start Num: 55

Candidate Starts for Stickynote_71:

(25, 52805), (Start: 55 @52712 has 8 MA's), (105, 52541), (121, 52487), (209, 52283), (280, 52127), (305, 52076), (307, 52073), (328, 52031), (372, 51944), (373, 51941), (387, 51869), (392, 51860), (496, 51503), (504, 51470), (526, 51413), (641, 51131), (659, 51065), (663, 51053), (667, 51035), (668, 51029), (672, 51008), (686, 50945), (697, 50912), (707, 50873),

Gene: Stuff_42 Start: 31323, Stop: 32717, Start Num: 221

Candidate Starts for Stuff_42:

(Start: 221 @31323 has 12 MA's), (Start: 223 @31326 has 2 MA's), (253, 31401), (264, 31425), (267, 31431), (290, 31455), (295, 31470), (297, 31473), (299, 31476), (329, 31545), (345, 31560), (365, 31596), (394, 31695), (402, 31716), (416, 31773), (462, 31896), (505, 32031), (515, 32058), (520, 32079), (541, 32157), (564, 32190), (568, 32199), (589, 32241), (610, 32307), (618, 32331), (624, 32349), (632, 32367), (649, 32421), (653, 32451), (670, 32508), (671, 32511), (684, 32559), (693, 32598), (698, 32613), (720, 32682), (729, 32700), (734, 32709),

Gene: Sucha_30 Start: 20665, Stop: 22092, Start Num: 215

Candidate Starts for Sucha_30:

(204, 20644), (Start: 215 @20665 has 84 MA's), (375, 21019), (378, 21022), (383, 21043), (409, 21130), (419, 21172), (517, 21454), (520, 21466), (526, 21487), (534, 21514), (540, 21541), (541, 21544), (560, 21571), (564, 21577), (582, 21613), (618, 21712), (642, 21775), (649, 21796), (665, 21850), (670, 21883), (674, 21895), (684, 21934), (691, 21970), (694, 21976), (698, 21988), (710, 22021), (719, 22051),

Gene: Sukkupi_71 Start: 54175, Stop: 52319, Start Num: 93

Candidate Starts for Sukkupi_71:

(7, 54592), (9, 54574), (14, 54499), (Start: 27 @54400 has 31 MA's), (Start: 93 @54175 has 3 MA's), (209, 53881), (229, 53848), (239, 53827), (258, 53773), (260, 53767), (262, 53764), (305, 53674), (307, 53671), (339, 53611), (390, 53455), (431, 53308), (468, 53200), (474, 53176), (496, 53074), (514, 53020), (521, 53005), (542, 52924), (573, 52885), (600, 52822), (608, 52783), (610, 52777), (619, 52747), (656, 52630), (672, 52567), (686, 52504), (691, 52486), (716, 52402),

Gene: SuperSulley_74 Start: 57198, Stop: 55111, Start Num: 27

Candidate Starts for SuperSulley_74:

(Start: 27 @57198 has 31 MA's), (61, 57078), (Start: 78 @57033 has 1 MA's), (80, 57030), (156, 56775), (209, 56667), (239, 56613), (262, 56550), (305, 56460), (307, 56457), (314, 56433), (339, 56397), (385, 56259), (390, 56241), (396, 56232), (402, 56217), (431, 56094), (457, 56010), (468, 55983), (474, 55959), (496, 55860), (514, 55806), (532, 55752), (542, 55710), (573, 55671), (602, 55602), (608, 55569), (619, 55533), (639, 55488), (641, 55476), (656, 55416), (659, 55410), (672, 55353), (716, 55188), (723, 55164),

Gene: Suppi_29 Start: 22165, Stop: 23559, Start Num: 215

Candidate Starts for Suppi_29:

(Start: 215 @22165 has 84 MA's), (244, 22222), (295, 22327), (332, 22414), (375, 22498), (378, 22501), (379, 22504), (405, 22594), (413, 22630), (415, 22639), (418, 22648), (432, 22705), (440, 22723), (462, 22756), (468, 22768), (491, 22837), (499, 22864), (508, 22888), (520, 22930), (530, 22963), (534, 22978), (535, 22987), (583, 23077), (609, 23146), (618, 23173), (624, 23191), (630, 23203), (653, 23293), (657, 23299), (662, 23308), (664, 23314), (670, 23350), (691, 23437), (710, 23488), (721, 23527), (734, 23551),

Gene: Suzy_49 Start: 37573, Stop: 39624, Start Num: 48

Candidate Starts for Suzy_49:

(Start: 48 @37573 has 13 MA's), (84, 37660), (97, 37720), (104, 37744), (113, 37786), (208, 38008), (229, 38044), (306, 38200), (312, 38218), (319, 38239), (325, 38251), (354, 38311), (361, 38326), (371, 38344), (387, 38422), (396, 38437), (398, 38440), (409, 38479), (413, 38500), (468, 38659), (472, 38680), (474, 38683), (478, 38695), (491, 38743), (493, 38749), (494, 38755), (520, 38830), (532, 38872), (538, 38902), (550, 39025), (558, 39058), (565, 39070), (592, 39124), (617, 39196), (619, 39205), (646, 39280), (660, 39334), (671, 39385), (676, 39403), (686, 39451), (690, 39460), (691, 39472), (697, 39487), (708, 39529), (717, 39559),

Gene: TMaxx_40 Start: 26999, Stop: 25191, Start Num: 51

Candidate Starts for TMaxx_40:

(38, 27044), (Start: 51 @26999 has 32 MA's), (68, 26939), (92, 26876), (138, 26738), (196, 26609), (235, 26525), (338, 26387), (382, 26201), (409, 26108), (413, 26087), (470, 25916), (474, 25901), (496, 25853), (526, 25784), (528, 25778), (533, 25763), (546, 25724), (553, 25715), (584, 25661), (585, 25658), (594, 25640), (609, 25622), (660, 25466), (668, 25433), (674, 25406), (679, 25385), (708, 25268), (722, 25217),

Gene: Talia1610_101 Start: 80103, Stop: 81941, Start Num: 49

Candidate Starts for Talia1610_101:

(Start: 49 @80103 has 2 MA's), (73, 80184), (100, 80262), (Start: 131 @80358 has 3 MA's), (176, 80418), (189, 80448), (241, 80568), (259, 80619), (336, 80679), (423, 81018), (444, 81075), (453, 81096), (470, 81141), (494, 81198), (496, 81204), (504, 81237), (510, 81249), (515, 81261), (529, 81306), (538, 81345), (566, 81402), (569, 81408), (585, 81441), (619, 81510), (649, 81594), (678, 81711), (724, 81885), (746, 81927),

Gene: TattModd_29 Start: 22150, Stop: 23550, Start Num: 215

Candidate Starts for TattModd_29:

(Start: 215 @22150 has 84 MA's), (244, 22213), (295, 22318), (297, 22321), (332, 22405), (358, 22438), (375, 22489), (379, 22495), (402, 22576), (403, 22579), (405, 22585), (413, 22621), (418, 22639), (419, 22642), (424, 22675), (432, 22696), (440, 22714), (462, 22747), (491, 22828), (499, 22855), (511, 22885), (513, 22894), (520, 22921), (530, 22954), (534, 22969), (560, 23023), (572, 23044), (578, 23056), (583, 23068), (657, 23290), (662, 23299), (664, 23305), (670, 23341), (685, 23401), (691, 23428), (721, 23518),

Gene: Teal_57 Start: 53068, Stop: 51656, Start Num: 238

Candidate Starts for Teal_57:

(102, 53416), (143, 53287), (171, 53200), (Start: 172 @53197 has 2 MA's), (Start: 238 @53068 has 27 MA's), (253, 53023), (290, 52933), (291, 52930), (293, 52924), (303, 52903), (332, 52840), (374, 52732), (378, 52714), (405, 52627), (409, 52612), (419, 52570), (445, 52489), (468, 52441), (479, 52399), (483, 52381), (489, 52378), (497, 52351), (513, 52300), (526, 52264), (539, 52213), (586, 52129), (594, 52108), (665, 51952), (666, 51946), (668, 51934), (698, 51808), (736, 51694),

Gene: Teatealatte_58 Start: 53221, Stop: 51518, Start Num: 118

Candidate Starts for Teatealatte_58:

(Start: 118 @53221 has 6 MA's), (Start: 122 @53209 has 2 MA's), (192, 53026), (Start: 238 @52936 has 27 MA's), (240, 52927), (253, 52891), (261, 52867), (265, 52858), (268, 52849), (290, 52801), (294, 52789), (301, 52777), (327, 52720), (332, 52705), (335, 52702), (347, 52684), (360, 52648), (361, 52645), (397, 52516), (399, 52513), (409, 52477), (410, 52474), (413, 52456), (415, 52447), (419, 52435), (429, 52387), (445, 52354), (468, 52306), (476, 52282), (497, 52216), (526, 52117), (569, 52018), (585, 51985), (586, 51982), (629, 51916), (648, 51865), (649, 51862), (665, 51805), (668, 51787), (694, 51670), (695, 51667), (699, 51655), (736, 51556), (747, 51535),

Gene: Tedro_40 Start: 25407, Stop: 27314, Start Num: 51

Candidate Starts for Tedro_40:

(Start: 51 @25407 has 32 MA's), (74, 25470), (86, 25491), (95, 25545), (159, 25722), (184, 25767), (257, 25941), (260, 25950), (305, 26040), (326, 26097), (386, 26283), (426, 26418), (429, 26430), (444, 26463), (465, 26508), (496, 26592), (534, 26709), (649, 26982), (656, 27018), (658, 27021), (671, 27081), (692, 27171), (701, 27201), (714, 27243), (732, 27294),

Gene: Teech_56 Start: 53010, Stop: 51319, Start Num: 122

Candidate Starts for Teech_56:

(Start: 118 @53022 has 6 MA's), (Start: 122 @53010 has 2 MA's), (192, 52827), (Start: 238 @52737 has 27 MA's), (240, 52728), (253, 52692), (261, 52668), (265, 52659), (268, 52650), (290, 52602), (301, 52578), (332, 52506), (347, 52485), (360, 52449), (361, 52446), (397, 52317), (399, 52314), (409, 52278), (410, 52275), (413, 52257), (415, 52248), (419, 52236), (429, 52188), (445, 52155), (468, 52107), (476, 52083), (497, 52017), (526, 51918), (569, 51819), (574, 51810), (585, 51786), (586, 51783), (629, 51717), (648, 51666), (649, 51663), (665, 51606), (668, 51588), (694, 51471), (695, 51468), (699, 51456), (736, 51357), (747, 51336),

Gene: Temper16_26 Start: 21732, Stop: 23129, Start Num: 215

Candidate Starts for Temper16_26:

(Start: 215 @21732 has 84 MA's), (244, 21792), (281, 21879), (295, 21897), (297, 21900), (332, 21984), (340, 21990), (358, 22017), (375, 22068), (379, 22074), (389, 22125), (394, 22134), (402, 22155), (405, 22164), (413, 22200), (419, 22221), (424, 22254), (432, 22275), (440, 22293), (444, 22299), (462, 22326), (468, 22338), (473, 22353), (491, 22407), (508, 22458), (511, 22464), (513, 22473), (515, 22479), (520, 22500), (530, 22533), (534, 22548), (535, 22557), (598, 22680), (610, 22719), (618, 22743), (621, 22755), (653, 22863), (657, 22869), (662, 22878), (664, 22884), (670, 22920), (691, 23007), (721, 23097), (734, 23121),

Gene: Terapin_51 Start: 36616, Stop: 38670, Start Num: 48

Candidate Starts for Terapin_51:

(Start: 48 @36616 has 13 MA's), (60, 36640), (84, 36703), (104, 36787), (113, 36829), (208, 37051), (229, 37087), (260, 37162), (278, 37201), (306, 37243), (312, 37261), (319, 37282), (325, 37294), (354, 37354), (361, 37369), (371, 37387), (387, 37465), (396, 37480), (398, 37483), (409, 37522), (413, 37543), (444, 37645), (468, 37702), (472, 37723), (474, 37726), (478, 37738), (491, 37786), (493, 37792), (506, 37840), (520, 37873), (526, 37897), (532, 37915), (538, 37945), (550, 38068), (558, 38101), (565, 38113), (573, 38128), (592, 38167), (608, 38212), (617, 38239), (646, 38323), (663, 38386), (671, 38428), (674, 38437), (676, 38446), (686, 38494), (690, 38503), (691, 38515), (697, 38530), (708, 38572),

Gene: Theresita_31 Start: 21253, Stop: 22665, Start Num: 215

Candidate Starts for Theresita_31:

(Start: 215 @21253 has 84 MA's), (291, 21397), (299, 21415), (342, 21505), (400, 21664), (404, 21682), (406, 21688), (409, 21703), (413, 21724), (419, 21745), (494, 21955), (505, 21991), (520, 22039), (526, 22060), (530, 22072), (534, 22087), (540, 22114), (544, 22129), (582, 22186), (610, 22261), (618, 22285), (630, 22315), (635, 22327), (649, 22369), (653, 22399), (670, 22456), (674, 22468), (694, 22549), (695, 22552), (705, 22576), (710, 22594), (719, 22624),

Gene: Thoth_53 Start: 39727, Stop: 41670, Start Num: 43

Candidate Starts for Thoth_53:

(Start: 43 @39727 has 59 MA's), (59, 39754), (82, 39826), (94, 39880), (110, 39940), (117, 39958), (Start: 118 @39967 has 6 MA's), (138, 40018), (153, 40060), (174, 40096), (209, 40183), (252, 40276), (257, 40291), (266, 40312), (319, 40414), (337, 40447), (348, 40471), (373, 40531), (396, 40618), (416, 40693), (446, 40783), (468, 40834), (469, 40837), (491, 40927), (496, 40945), (504, 40978), (525, 41032), (529, 41044), (534, 41062), (573, 41125), (608, 41209), (648, 41326), (656, 41374), (672, 41437), (691, 41521),

Gene: Thumb_62 Start: 46085, Stop: 48142, Start Num: 43

Candidate Starts for Thumb_62:

(Start: 43 @46085 has 59 MA's), (66, 46145), (67, 46148), (Start: 93 @46241 has 3 MA's), (97, 46253), (103, 46274), (142, 46397), (144, 46400), (146, 46409), (159, 46442), (165, 46463), (180, 46511), (229, 46616), (239, 46637), (241, 46643), (262, 46697), (352, 46883), (354, 46895), (365, 46913), (371, 46928), (373, 46934), (468, 47252), (469, 47255), (480, 47300), (493, 47351), (496, 47363), (525, 47453), (529, 47465), (537, 47498), (558, 47522), (563, 47531), (610, 47621), (620, 47654), (654, 47765), (656, 47768), (658, 47771), (659, 47774), (671, 47828), (686, 47894), (691, 47912), (750, 48089),

Gene: Tillicus_57 Start: 39985, Stop: 41907, Start Num: 46

Candidate Starts for Tillicus_57:

(16, 39862), (17, 39883), (19, 39904), (36, 39934), (39, 39967), (Start: 42 @39979 has 11 MA's), (46, 39985), (Start: 57 @40003 has 1 MA's), (59, 40015), (68, 40051), (81, 40084), (84, 40087), (Start: 93 @40135 has 3 MA's), (98, 40153), (124, 40243), (130, 40261), (134, 40270), (139, 40279), (174, 40351), (229, 40471), (231, 40474), (254, 40534), (262, 40552), (299, 40624), (309, 40651), (373, 40786), (377, 40804), (385, 40846), (392, 40867), (396, 40873), (409, 40915), (413, 40936), (419,

40957), (426, 40993), (446, 41050), (451, 41062), (465, 41092), (467, 41101), (480, 41152), (504, 41248), (506, 41251), (566, 41362), (590, 41410), (608, 41452), (617, 41479), (646, 41563), (668, 41647), (671, 41665), (677, 41689), (682, 41704), (691, 41752), (697, 41767), (707, 41806), (711, 41821), (718, 41842), (744, 41899),

Gene: TinyMiny_42 Start: 26527, Stop: 28557, Start Num: 23

Candidate Starts for TinyMiny_42:

(11, 26383), (Start: 23 @26527 has 1 MA's), (Start: 50 @26617 has 3 MA's), (Start: 54 @26623 has 3 MA's), (95, 26770), (100, 26788), (103, 26797), (159, 26947), (219, 27073), (257, 27163), (260, 27172), (305, 27262), (320, 27304), (377, 27466), (429, 27652), (436, 27670), (444, 27685), (468, 27742), (482, 27802), (518, 27874), (579, 28012), (605, 28078), (609, 28108), (639, 28186), (658, 28264), (671, 28324), (682, 28363), (692, 28414), (699, 28432), (733, 28540),

Gene: Tracker_72 Start: 55556, Stop: 53490, Start Num: 27

Candidate Starts for Tracker_72:

(6, 55760), (7, 55748), (9, 55730), (Start: 27 @55556 has 31 MA's), (Start: 69 @55418 has 2 MA's), (76, 55394), (139, 55190), (156, 55145), (209, 55037), (260, 54923), (262, 54920), (305, 54830), (307, 54827), (339, 54767), (385, 54629), (390, 54611), (402, 54587), (431, 54464), (468, 54359), (496, 54233), (514, 54179), (567, 54053), (573, 54044), (584, 54020), (608, 53948), (610, 53942), (619, 53912), (641, 53855), (656, 53795), (672, 53732), (691, 53651),

Gene: Tredge_57 Start: 53221, Stop: 51518, Start Num: 118

Candidate Starts for Tredge_57:

(Start: 118 @53221 has 6 MA's), (Start: 122 @53209 has 2 MA's), (192, 53026), (Start: 238 @52936 has 27 MA's), (240, 52927), (253, 52891), (261, 52867), (265, 52858), (268, 52849), (290, 52801), (294, 52789), (301, 52777), (327, 52720), (332, 52705), (335, 52702), (347, 52684), (360, 52648), (361, 52645), (397, 52516), (399, 52513), (409, 52477), (410, 52474), (413, 52456), (415, 52447), (419, 52435), (429, 52387), (445, 52354), (468, 52306), (476, 52282), (497, 52216), (526, 52117), (569, 52018), (585, 51985), (586, 51982), (629, 51916), (648, 51865), (649, 51862), (665, 51805), (668, 51787), (694, 51670), (695, 51667), (699, 51655), (736, 51556), (747, 51535),

Gene: Trogglehumper_76 Start: 59717, Stop: 58170, Start Num: 190

Candidate Starts for Trogglehumper_76:

(151, 59828), (173, 59762), (Start: 190 @59717 has 1 MA's), (242, 59600), (253, 59567), (272, 59525), (275, 59519), (290, 59495), (321, 59429), (324, 59420), (326, 59417), (353, 59354), (365, 59315), (382, 59249), (404, 59183), (409, 59165), (411, 59153), (415, 59135), (426, 59087), (427, 59081), (468, 59003), (479, 58961), (483, 58943), (504, 58886), (509, 58877), (565, 58751), (585, 58709), (586, 58706), (594, 58685), (607, 58652), (623, 58595), (668, 58445), (673, 58421), (685, 58370), (708, 58280), (719, 58241), (731, 58220), (738, 58208), (740, 58205), (748, 58193),

Gene: Troll4_53 Start: 39859, Stop: 41802, Start Num: 43

Candidate Starts for Troll4_53:

(Start: 43 @39859 has 59 MA's), (59, 39886), (82, 39958), (94, 40012), (110, 40072), (117, 40090), (Start: 118 @40099 has 6 MA's), (138, 40150), (153, 40192), (174, 40228), (209, 40315), (252, 40408), (257, 40423), (266, 40444), (319, 40546), (337, 40579), (348, 40603), (373, 40663), (396, 40750), (416, 40825), (446, 40915), (468, 40966), (469, 40969), (491, 41059), (496, 41077), (504, 41110), (525, 41164), (529, 41176), (534, 41194), (573, 41257), (608, 41341), (648, 41458), (656, 41506), (672, 41569), (691, 41653),

Gene: TurboVicky_33 Start: 23252, Stop: 24679, Start Num: 215

Candidate Starts for TurboVicky_33:

(200, 23210), (Start: 215 @23252 has 84 MA's), (365, 23570), (409, 23717), (413, 23738), (505, 24005), (520, 24053), (526, 24074), (541, 24131), (564, 24164), (582, 24200), (612, 24278), (618,

24299), (648, 24380), (649, 24383), (670, 24470), (674, 24482), (684, 24521), (691, 24557), (694, 24563), (698, 24575), (719, 24638),

Gene: Turuncu_75 Start: 56841, Stop: 54784, Start Num: 27

Candidate Starts for Turuncu_75:

(5, 57126), (9, 57009), (12, 56991), (Start: 27 @56841 has 31 MA's), (209, 56328), (239, 56274), (252, 56238), (262, 56211), (300, 56133), (305, 56121), (339, 56058), (340, 56052), (378, 55959), (385, 55920), (390, 55902), (431, 55755), (440, 55722), (455, 55692), (457, 55686), (468, 55659), (496, 55536), (521, 55467), (525, 55449), (573, 55344), (577, 55335), (602, 55275), (610, 55236), (619, 55206), (627, 55188), (641, 55149), (656, 55089), (666, 55059), (672, 55026), (683, 54984), (727, 54828),

Gene: Typher_35 Start: 23381, Stop: 24808, Start Num: 215

Candidate Starts for Typher_35:

(200, 23339), (Start: 215 @23381 has 84 MA's), (365, 23699), (394, 23801), (409, 23846), (413, 23867), (505, 24134), (520, 24182), (526, 24203), (541, 24260), (564, 24293), (582, 24329), (612, 24407), (618, 24428), (648, 24509), (649, 24512), (670, 24599), (674, 24611), (684, 24650), (691, 24686), (698, 24704), (719, 24767),

Gene: UNTPL_44 Start: 31380, Stop: 32774, Start Num: 221

Candidate Starts for UNTPL_44:

(Start: 221 @31380 has 12 MA's), (Start: 223 @31383 has 2 MA's), (253, 31458), (264, 31482), (290, 31512), (295, 31527), (345, 31617), (365, 31653), (394, 31752), (399, 31761), (416, 31830), (462, 31953), (505, 32088), (515, 32115), (520, 32136), (541, 32214), (564, 32247), (568, 32256), (589, 32298), (610, 32364), (618, 32388), (624, 32406), (632, 32424), (649, 32478), (653, 32508), (670, 32565), (671, 32568), (684, 32616), (693, 32655), (698, 32670), (720, 32739), (729, 32757), (734, 32766),

Gene: Urla_26 Start: 21745, Stop: 23142, Start Num: 215

Candidate Starts for Urla_26:

(Start: 215 @21745 has 84 MA's), (244, 21805), (295, 21910), (332, 21997), (358, 22030), (375, 22081), (379, 22087), (402, 22168), (405, 22177), (413, 22213), (418, 22231), (419, 22234), (424, 22267), (432, 22288), (475, 22369), (491, 22420), (499, 22447), (511, 22477), (513, 22486), (518, 22507), (520, 22513), (530, 22546), (534, 22561), (535, 22570), (564, 22621), (580, 22651), (610, 22732), (624, 22774), (639, 22807), (651, 22870), (662, 22891), (664, 22897), (667, 22912), (670, 22933), (691, 23020), (713, 23077), (721, 23110),

Gene: Vallejo_29 Start: 22089, Stop: 23489, Start Num: 215

Candidate Starts for Vallejo_29:

(Start: 215 @22089 has 84 MA's), (244, 22152), (295, 22257), (297, 22260), (332, 22344), (358, 22377), (375, 22428), (379, 22434), (402, 22515), (403, 22518), (405, 22524), (413, 22560), (418, 22578), (419, 22581), (424, 22614), (432, 22635), (440, 22653), (462, 22686), (491, 22767), (499, 22794), (511, 22824), (513, 22833), (520, 22860), (530, 22893), (534, 22908), (560, 22962), (572, 22983), (578, 22995), (583, 23007), (657, 23229), (662, 23238), (664, 23244), (670, 23280), (685, 23340), (691, 23367), (721, 23457),

Gene: Visconti_54 Start: 39739, Stop: 41682, Start Num: 43

Candidate Starts for Visconti_54:

(Start: 43 @39739 has 59 MA's), (59, 39766), (82, 39838), (94, 39892), (110, 39952), (117, 39970), (Start: 118 @39979 has 6 MA's), (138, 40030), (153, 40072), (174, 40108), (209, 40195), (252, 40288), (257, 40303), (266, 40324), (319, 40426), (337, 40459), (348, 40483), (373, 40543), (396, 40630), (416, 40705), (446, 40795), (468, 40846), (469, 40849), (491, 40939), (496, 40957), (504, 40990), (525, 41044), (529, 41056), (534, 41074), (573, 41137), (608, 41221), (648, 41338), (656,

41386), (672, 41449), (691, 41533),

Gene: Vulture_26 Start: 21745, Stop: 23139, Start Num: 215

Candidate Starts for Vulture_26:

(Start: 215 @21745 has 84 MA's), (244, 21802), (281, 21889), (295, 21907), (297, 21910), (332, 21994), (358, 22027), (375, 22078), (379, 22084), (394, 22144), (405, 22174), (413, 22210), (418, 22228), (424, 22264), (432, 22285), (440, 22303), (444, 22309), (462, 22336), (491, 22417), (499, 22444), (508, 22468), (513, 22483), (520, 22510), (530, 22543), (534, 22558), (609, 22726), (618, 22753), (621, 22765), (630, 22783), (653, 22873), (657, 22879), (664, 22894), (665, 22897), (670, 22930), (685, 22990), (691, 23017), (713, 23074), (721, 23107), (734, 23131),

Gene: WaldoWhy_55 Start: 39836, Stop: 41779, Start Num: 43

Candidate Starts for WaldoWhy_55:

(Start: 43 @39836 has 59 MA's), (59, 39863), (82, 39935), (94, 39989), (110, 40049), (117, 40067), (Start: 118 @40076 has 6 MA's), (138, 40127), (153, 40169), (174, 40205), (209, 40292), (252, 40385), (257, 40400), (266, 40421), (319, 40523), (337, 40556), (348, 40580), (373, 40640), (396, 40727), (416, 40802), (446, 40892), (468, 40943), (469, 40946), (491, 41036), (496, 41054), (504, 41087), (525, 41141), (529, 41153), (534, 41171), (573, 41234), (608, 41318), (648, 41435), (656, 41483), (672, 41546), (691, 41630),

Gene: Waltz_91 Start: 53322, Stop: 54977, Start Num: 169

Candidate Starts for Waltz_91:

(Start: 169 @53322 has 8 MA's), (192, 53385), (Start: 195 @53394 has 1 MA's), (232, 53478), (310, 53646), (355, 53739), (366, 53775), (381, 53829), (395, 53880), (407, 53916), (412, 53943), (419, 53970), (425, 54003), (428, 54012), (475, 54129), (500, 54207), (504, 54225), (521, 54276), (531, 54309), (538, 54342), (564, 54390), (582, 54426), (599, 54468), (636, 54579), (642, 54597), (649, 54624), (652, 54651), (674, 54726), (681, 54753), (698, 54819), (701, 54834), (703, 54843), (704, 54846), (713, 54873), (715, 54879), (736, 54930), (747, 54951), (749, 54966),

Gene: Wawa_29 Start: 22126, Stop: 23526, Start Num: 215

Candidate Starts for Wawa_29:

(Start: 215 @22126 has 84 MA's), (244, 22189), (295, 22294), (297, 22297), (332, 22381), (358, 22414), (375, 22465), (379, 22471), (402, 22552), (403, 22555), (405, 22561), (413, 22597), (418, 22615), (419, 22618), (424, 22651), (432, 22672), (440, 22690), (462, 22723), (491, 22804), (499, 22831), (511, 22861), (513, 22870), (520, 22897), (530, 22930), (534, 22945), (560, 22999), (572, 23020), (578, 23032), (583, 23044), (624, 23158), (657, 23266), (662, 23275), (664, 23281), (670, 23317), (685, 23377), (691, 23404), (721, 23494),

Gene: Wayne_29 Start: 22211, Stop: 23605, Start Num: 215

Candidate Starts for Wayne_29:

(Start: 215 @22211 has 84 MA's), (244, 22268), (295, 22373), (332, 22460), (375, 22544), (378, 22547), (379, 22550), (405, 22640), (413, 22676), (415, 22685), (418, 22694), (432, 22751), (440, 22769), (462, 22802), (468, 22814), (491, 22883), (499, 22910), (508, 22934), (520, 22976), (530, 23009), (534, 23024), (535, 23033), (583, 23123), (609, 23192), (618, 23219), (624, 23237), (630, 23249), (653, 23339), (657, 23345), (662, 23354), (664, 23360), (670, 23396), (691, 23483), (710, 23534), (721, 23573), (734, 23597),

Gene: Weiss13_66 Start: 47645, Stop: 49405, Start Num: 147

Candidate Starts for Weiss13_66:

(Start: 147 @47645 has 9 MA's), (182, 47714), (225, 47810), (231, 47819), (262, 47900), (283, 47945), (371, 48146), (384, 48194), (402, 48254), (406, 48266), (421, 48332), (458, 48455), (468, 48479), (474, 48503), (496, 48707), (504, 48740), (511, 48755), (525, 48794), (526, 48797), (529, 48806), (573, 48875), (625, 49007), (656, 49130), (658, 49133), (666, 49160), (671, 49190), (673,

49196), (674, 49199), (678, 49217), (682, 49229), (718, 49364), (728, 49394),

Gene: Wentworth_70 Start: 50269, Stop: 48383, Start Num: 43

Candidate Starts for Wentworth_70:

(28, 50335), (33, 50326), (37, 50305), (Start: 42 @50272 has 11 MA's), (Start: 43 @50269 has 59 MA's), (56, 50254), (74, 50191), (Start: 78 @50182 has 1 MA's), (86, 50170), (Start: 93 @50122 has 3 MA's), (103, 50089), (107, 50077), (113, 50056), (126, 50014), (159, 49939), (174, 49915), (257, 49717), (260, 49708), (282, 49663), (310, 49600), (360, 49492), (373, 49444), (404, 49339), (415, 49288), (429, 49228), (467, 49141), (468, 49138), (504, 49033), (509, 49024), (514, 49012), (571, 48913), (617, 48796), (620, 48784), (632, 48757), (633, 48751), (658, 48667), (674, 48598), (686, 48541), (691, 48523), (707, 48469), (723, 48415),

Gene: Wheelbite_90 Start: 54992, Stop: 56656, Start Num: 169

Candidate Starts for Wheelbite_90:

(Start: 169 @54992 has 8 MA's), (192, 55055), (Start: 195 @55064 has 1 MA's), (234, 55151), (249, 55196), (310, 55316), (355, 55409), (364, 55433), (366, 55445), (381, 55499), (395, 55550), (407, 55586), (412, 55613), (417, 55634), (419, 55640), (428, 55682), (475, 55799), (500, 55877), (504, 55895), (521, 55946), (531, 55979), (538, 56012), (568, 56069), (582, 56096), (599, 56138), (625, 56219), (636, 56249), (642, 56267), (649, 56294), (652, 56321), (674, 56396), (681, 56423), (684, 56435), (701, 56504), (702, 56510), (703, 56513), (704, 56516), (713, 56543), (715, 56549), (728, 56585), (736, 56600), (745, 56615), (749, 56636),

Gene: Wheezy_72 Start: 55632, Stop: 53704, Start Num: 69

Candidate Starts for Wheezy_72:

(6, 55974), (7, 55962), (9, 55944), (Start: 27 @55770 has 31 MA's), (Start: 69 @55632 has 2 MA's), (76, 55608), (139, 55404), (156, 55359), (209, 55251), (260, 55137), (262, 55134), (305, 55044), (307, 55041), (339, 54981), (385, 54843), (390, 54825), (402, 54801), (431, 54678), (468, 54573), (496, 54447), (514, 54393), (567, 54267), (573, 54258), (584, 54234), (608, 54162), (610, 54156), (619, 54126), (641, 54069), (656, 54009), (672, 53946), (691, 53865),

Gene: WhoseManz_71 Start: 52415, Stop: 50334, Start Num: 27

Candidate Starts for WhoseManz_71:

(7, 52607), (9, 52589), (14, 52514), (Start: 27 @52415 has 31 MA's), (209, 51896), (229, 51863), (239, 51842), (258, 51788), (260, 51782), (262, 51779), (305, 51689), (307, 51686), (339, 51626), (390, 51470), (431, 51323), (468, 51215), (474, 51191), (496, 51089), (514, 51035), (521, 51020), (542, 50939), (573, 50900), (600, 50837), (608, 50798), (610, 50792), (619, 50762), (656, 50645), (672, 50582), (686, 50519), (691, 50501), (716, 50417),

Gene: Wilkos_72 Start: 50432, Stop: 48546, Start Num: 43

Candidate Starts for Wilkos_72:

(21, 50525), (28, 50498), (33, 50489), (37, 50468), (Start: 42 @50435 has 11 MA's), (Start: 43 @50432 has 59 MA's), (56, 50417), (74, 50354), (Start: 78 @50345 has 1 MA's), (86, 50333), (Start: 93 @50285 has 3 MA's), (103, 50252), (107, 50240), (113, 50219), (126, 50177), (159, 50102), (206, 49994), (231, 49949), (257, 49880), (260, 49871), (310, 49763), (373, 49607), (395, 49523), (404, 49502), (415, 49451), (429, 49391), (468, 49301), (481, 49247), (504, 49196), (509, 49187), (514, 49175), (525, 49142), (571, 49076), (620, 48947), (632, 48920), (633, 48914), (658, 48830), (674, 48761), (677, 48746), (686, 48704), (691, 48686), (707, 48632), (723, 48578),

Gene: Woes_57 Start: 53248, Stop: 51707, Start Num: 172

Candidate Starts for Woes_57:

(102, 53467), (143, 53338), (171, 53251), (Start: 172 @53248 has 2 MA's), (Start: 238 @53119 has 27 MA's), (253, 53074), (290, 52984), (291, 52981), (293, 52975), (303, 52954), (332, 52891), (374, 52783), (378, 52765), (405, 52678), (409, 52663), (419, 52621), (445, 52540), (468, 52492), (479,

52450), (483, 52432), (489, 52429), (497, 52402), (513, 52351), (526, 52315), (539, 52264), (586, 52180), (594, 52159), (665, 52003), (666, 51997), (668, 51985), (698, 51859), (736, 51745),

Gene: Wojtek_56 Start: 39665, Stop: 41593, Start Num: 42

Candidate Starts for Wojtek_56:

(17, 39569), (18, 39578), (19, 39590), (36, 39620), (39, 39653), (Start: 42 @39665 has 11 MA's), (46, 39671), (Start: 57 @39689 has 1 MA's), (60, 39704), (68, 39737), (81, 39770), (84, 39773), (98, 39839), (Start: 118 @39911 has 6 MA's), (124, 39929), (130, 39947), (134, 39956), (139, 39965), (174, 40037), (229, 40157), (231, 40160), (254, 40220), (262, 40238), (299, 40310), (309, 40337), (373, 40472), (377, 40490), (385, 40532), (392, 40553), (396, 40559), (409, 40601), (413, 40622), (419, 40643), (426, 40679), (446, 40736), (451, 40748), (465, 40778), (467, 40787), (480, 40838), (504, 40934), (506, 40937), (566, 41048), (608, 41138), (617, 41165), (648, 41255), (668, 41333), (671, 41351), (677, 41375), (682, 41390), (707, 41492), (711, 41507), (718, 41528),

Gene: Wollypog_43 Start: 30596, Stop: 32524, Start Num: 51

Candidate Starts for Wollypog_43:

(Start: 51 @30596 has 32 MA's), (59, 30620), (95, 30746), (110, 30794), (126, 30848), (153, 30911), (159, 30923), (209, 31034), (243, 31100), (245, 31106), (286, 31199), (298, 31229), (305, 31244), (308, 31250), (401, 31514), (413, 31562), (416, 31574), (426, 31619), (455, 31688), (465, 31709), (504, 31829), (529, 31895), (538, 31934), (588, 31997), (660, 32228), (683, 32327), (688, 32354), (714, 32453), (716, 32462),

Gene: WonderBoy_25 Start: 20548, Stop: 21942, Start Num: 215

Candidate Starts for WonderBoy_25:

(Start: 215 @20548 has 84 MA's), (244, 20605), (295, 20710), (332, 20797), (358, 20830), (375, 20881), (379, 20887), (402, 20968), (403, 20971), (405, 20977), (413, 21013), (418, 21031), (419, 21034), (424, 21067), (432, 21088), (491, 21220), (499, 21247), (513, 21286), (518, 21307), (520, 21313), (530, 21346), (534, 21361), (535, 21370), (560, 21415), (580, 21451), (598, 21493), (618, 21556), (624, 21574), (653, 21676), (655, 21679), (664, 21697), (665, 21700), (669, 21724), (670, 21733), (691, 21820), (721, 21910), (734, 21934),

Gene: Xenia2_54 Start: 38993, Stop: 40912, Start Num: 43

Candidate Starts for Xenia2_54:

(Start: 42 @38990 has 11 MA's), (Start: 43 @38993 has 59 MA's), (Start: 57 @39008 has 1 MA's), (68, 39056), (81, 39089), (84, 39092), (134, 39275), (139, 39284), (174, 39356), (180, 39371), (186, 39380), (231, 39479), (254, 39539), (354, 39752), (371, 39785), (396, 39878), (402, 39893), (409, 39920), (413, 39941), (446, 40055), (465, 40097), (467, 40106), (478, 40145), (480, 40157), (491, 40202), (493, 40208), (504, 40253), (511, 40268), (565, 40361), (608, 40454), (656, 40607), (668, 40649), (671, 40667), (672, 40670), (707, 40808), (718, 40844), (742, 40898),

Gene: Yara_66 Start: 49125, Stop: 47230, Start Num: 43

Candidate Starts for Yara_66:

(Start: 43 @49125 has 59 MA's), (Start: 53 @49113 has 7 MA's), (56, 49110), (65, 49071), (74, 49047), (Start: 78 @49038 has 1 MA's), (86, 49026), (107, 48933), (126, 48870), (159, 48795), (174, 48771), (180, 48756), (231, 48645), (239, 48624), (257, 48576), (320, 48438), (387, 48240), (404, 48198), (415, 48147), (429, 48087), (431, 48081), (468, 47997), (504, 47892), (514, 47871), (522, 47853), (531, 47820), (571, 47772), (617, 47649), (620, 47637), (632, 47610), (658, 47520), (659, 47517), (674, 47451), (686, 47394), (691, 47376), (693, 47373), (714, 47301), (732, 47250),

Gene: Yelo_65 Start: 48022, Stop: 49782, Start Num: 147

Candidate Starts for Yelo_65:

(Start: 147 @48022 has 9 MA's), (182, 48091), (225, 48187), (231, 48196), (262, 48277), (283, 48322), (371, 48523), (384, 48571), (402, 48631), (406, 48643), (421, 48709), (458, 48832), (468,

48856), (474, 48880), (496, 49084), (504, 49117), (511, 49132), (525, 49171), (526, 49174), (529, 49183), (573, 49252), (625, 49384), (656, 49507), (658, 49510), (666, 49537), (671, 49567), (673, 49573), (674, 49576), (678, 49594), (682, 49606), (718, 49741), (728, 49771),

Gene: Yikes_62 Start: 41734, Stop: 43647, Start Num: 43

Candidate Starts for Yikes_62:

(17, 41608), (18, 41617), (19, 41629), (26, 41662), (39, 41719), (Start: 42 @41731 has 11 MA's), (Start: 43 @41734 has 59 MA's), (Start: 57 @41746 has 1 MA's), (68, 41794), (81, 41827), (98, 41896), (124, 41986), (134, 42013), (139, 42022), (174, 42094), (229, 42214), (254, 42277), (299, 42367), (309, 42394), (371, 42523), (377, 42547), (385, 42589), (404, 42637), (409, 42658), (413, 42679), (426, 42736), (446, 42790), (465, 42832), (480, 42892), (504, 42988), (506, 42991), (596, 43168), (617, 43219), (648, 43309), (656, 43345), (659, 43351), (671, 43405), (682, 43444), (707, 43546), (711, 43561), (718, 43582),

Gene: Yndexa_71 Start: 54175, Stop: 52319, Start Num: 93

Candidate Starts for Yndexa_71:

(7, 54592), (9, 54574), (14, 54499), (Start: 27 @54400 has 31 MA's), (Start: 93 @54175 has 3 MA's), (209, 53881), (229, 53848), (239, 53827), (258, 53773), (260, 53767), (262, 53764), (305, 53674), (307, 53671), (339, 53611), (390, 53455), (431, 53308), (468, 53200), (474, 53176), (496, 53074), (514, 53020), (521, 53005), (542, 52924), (573, 52885), (600, 52822), (608, 52783), (610, 52777), (619, 52747), (656, 52630), (672, 52567), (686, 52504), (691, 52486), (716, 52402),

Gene: Zanella_33 Start: 23260, Stop: 24687, Start Num: 215

Candidate Starts for Zanella_33:

(200, 23218), (Start: 215 @23260 has 84 MA's), (365, 23578), (409, 23725), (413, 23746), (505, 24013), (520, 24061), (526, 24082), (541, 24139), (564, 24172), (582, 24208), (612, 24286), (618, 24307), (648, 24388), (649, 24391), (670, 24478), (674, 24490), (684, 24529), (691, 24565), (694, 24571), (695, 24574), (698, 24583), (719, 24646),

Gene: Zany_58 Start: 41140, Stop: 43056, Start Num: 42

Candidate Starts for Zany_58:

(Start: 42 @41140 has 11 MA's), (Start: 43 @41143 has 59 MA's), (Start: 57 @41155 has 1 MA's), (68, 41203), (81, 41236), (98, 41305), (124, 41395), (134, 41422), (139, 41431), (174, 41503), (229, 41623), (254, 41686), (266, 41713), (299, 41776), (309, 41803), (371, 41932), (377, 41956), (385, 41998), (404, 42046), (409, 42067), (413, 42088), (426, 42145), (446, 42199), (465, 42241), (480, 42301), (504, 42397), (506, 42400), (617, 42628), (648, 42718), (656, 42754), (659, 42760), (671, 42814), (682, 42853), (707, 42955), (711, 42970), (718, 42991),

Gene: Zenon_68 Start: 47968, Stop: 49728, Start Num: 147

Candidate Starts for Zenon_68:

(Start: 147 @47968 has 9 MA's), (182, 48037), (225, 48133), (231, 48142), (262, 48223), (283, 48268), (371, 48469), (384, 48517), (402, 48577), (406, 48589), (421, 48655), (458, 48778), (468, 48802), (474, 48826), (496, 49030), (504, 49063), (511, 49078), (525, 49117), (526, 49120), (529, 49129), (573, 49198), (625, 49330), (656, 49453), (658, 49456), (666, 49483), (671, 49513), (673, 49519), (674, 49522), (678, 49540), (682, 49552), (718, 49687), (728, 49717),

Gene: Zion_72 Start: 52509, Stop: 50584, Start Num: 55

Candidate Starts for Zion_72:

(25, 52602), (26, 52596), (Start: 55 @52509 has 8 MA's), (105, 52338), (121, 52284), (209, 52080), (280, 51924), (305, 51873), (307, 51870), (328, 51828), (372, 51741), (373, 51738), (387, 51666), (392, 51657), (494, 51306), (496, 51300), (504, 51267), (641, 50928), (659, 50862), (663, 50850), (667, 50832), (672, 50805), (686, 50742), (697, 50709), (717, 50637),

Gene: Zooman_98 Start: 76212, Stop: 74272, Start Num: 53

Candidate Starts for Zooman_98:

(Start: 53 @76212 has 7 MA's), (92, 76086), (99, 76059), (128, 75966), (130, 75963), (176, 75891), (209, 75810), (220, 75786), (333, 75510), (411, 75225), (416, 75204), (442, 75114), (468, 75054), (470, 75045), (474, 75030), (494, 74988), (496, 74982), (504, 74949), (510, 74937), (514, 74928), (524, 74904), (538, 74844), (555, 74808), (612, 74712), (614, 74706), (638, 74643), (643, 74622), (645, 74616), (666, 74541), (667, 74535), (670, 74514), (685, 74454), (695, 74412), (701, 74388), (704, 74376),

Gene: Zorro_29 Start: 22105, Stop: 23505, Start Num: 215

Candidate Starts for Zorro_29:

(Start: 215 @22105 has 84 MA's), (244, 22168), (295, 22273), (297, 22276), (332, 22360), (358, 22393), (375, 22444), (379, 22450), (402, 22531), (403, 22534), (405, 22540), (413, 22576), (418, 22594), (419, 22597), (424, 22630), (432, 22651), (462, 22702), (491, 22783), (499, 22810), (511, 22840), (513, 22849), (520, 22876), (530, 22909), (534, 22924), (560, 22978), (572, 22999), (578, 23011), (583, 23023), (657, 23245), (662, 23254), (664, 23260), (670, 23296), (685, 23356), (691, 23383), (721, 23473),