

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 163303 Report

This analysis was run 04/28/24 on database version 559.

Pham number 163303 has 274 members, 48 are drafts.

Phages represented in each track:

- Track 1 : Preamble_25
- Track 2 : Albanese_29
- Track 3 : Glenn_29, TattModd_29, Rozby_29, Fluke_29, Beethoven_29, Riverdale_29, Vallejo_29, Carpal_29
- Track 4 : Aledel_26, Riovina_26, Eunoia_26, OMalley_26
- Track 5 : PartyCup_29
- Track 6 : Lucy_25
- Track 7 : DreamTeam_25, Gisselle_25, Kittykat_25
- Track 8 : DrRobert_25, PitaDog_25, Bodacious_25, Nancia_25, ChewChew_25, CristinaYang_25
- Track 9 : Zorro_29
- Track 10 : PinkFriday_25
- Track 11 : Christian_25
- Track 12 : Maria1952_26, Daiboju_26, Temper16_26, KingBob_26, Herb_26, Sergei_26
- Track 13 : Vulture_26, HunterDalle_26
- Track 14 : GreenHearts_29
- Track 15 : Kalizoi_30
- Track 16 : Lakshmi_29
- Track 17 : Litotes_29
- Track 18 : AustinPowers_26
- Track 19 : Korra_30
- Track 20 : WonderBoy_25
- Track 21 : Nubia_29, Oxyfrius_29
- Track 22 : AppleCider_29
- Track 23 : Wawa_29
- Track 24 : Moki_25
- Track 25 : Urla_26
- Track 26 : Suppi_29, Canowicakte_29, Wayne_29
- Track 27 : Cholula_29, RAP15_29, Savage2526_29, Potatoes_29, MeganNoll_29, Jumboset_29
- Track 28 : LilStuart_25
- Track 29 : Bennie_25
- Track 30 : Greenhouse_29
- Track 31 : EstebanJulior_26, MamaPearl_26
- Track 32 : RcigaStruga_29, Huntingdon_29
- Track 33 : Scuttle_29

- Track 34 : BigMack_25
- Track 35 : Misaeng_29
- Track 36 : BrotherBLo_29
- Track 37 : Makoto_25
- Track 38 : Joann_29
- Track 39 : Chridison_26
- Track 40 : Pumancara_25
- Track 41 : Laroye_95
- Track 42 : Wheelbite_90
- Track 43 : Salgado_95, LiSara_92
- Track 44 : Shrooms_93
- Track 45 : Waltz_91
- Track 46 : Kovu_97
- Track 47 : Edmundo_94
- Track 48 : Bogota_43, Intolerant_41
- Track 49 : Microdon_41
- Track 50 : JackieB_42
- Track 51 : Crosby_42
- Track 52 : LazerLemon_42
- Track 53 : Araceli_42
- Track 54 : UNTPL_44
- Track 55 : Stuff_42
- Track 56 : Marky_44
- Track 57 : Henoccus_42
- Track 58 : Wentworth_70
- Track 59 : Yara_66
- Track 60 : Lizz_70
- Track 61 : ShakeNBake_70, PHTowN_70
- Track 62 : Gibson_70
- Track 63 : Wilkos_72
- Track 64 : Dryad_74
- Track 65 : Rooney_70
- Track 66 : Amore2_62, Austin_61, HayZem_63, GMA7_51
- Track 67 : GTE7_50
- Track 68 : Boneham_63, BirksAndSocks_64, Butterball_62
- Track 69 : CathyBurgh_58, Barbochs_59, Lizzo_59
- Track 70 : Dakiti_60, Chelms_59
- Track 71 : Sam12_58, RemRem_60, Ekhein_59, Flakey_58, Exiguo_58
- Track 72 : SteveFrench_58, RoyalG_59
- Track 73 : GourdThymes_59
- Track 74 : Squibbles_58
- Track 75 : PokyPuppy_58
- Track 76 : Linetti_59
- Track 77 : Monty_58, Hotorobo_59, Gorko_58
- Track 78 : BenoitCattle_60
- Track 79 : Adgers_62
- Track 80 : PierreThree_58
- Track 81 : FelixAlejandro_64
- Track 82 : Poland_66, Msay19_64
- Track 83 : BigShaq_58
- Track 84 : Jellybones_61
- Track 85 : John316_62
- Track 86 : Eggsie_58

- Track 87 : Beaver_62
- Track 88 : Breezic_59
- Track 89 : Sombrero_60
- Track 90 : Diabla_63
- Track 91 : Bianmat_57, Jams_57, Shelley_57, Lidong_57
- Track 92 : Jormungandr_57, MrWormie_57, Lahirium_57, Guillaume_57, Nimi13_57
- Track 93 : GalacticEye_57, Sticker17_57, Hail2Pitt_56, Neoevie_57, Damp_55, Teal_57, Anamika_57, Minos_58, Harambe_57, Hello_57, Newt_58
- Track 94 : Luker_58, Kaseim_57
- Track 95 : Charianelly_56
- Track 96 : Berries_57
- Track 97 : Woes_57
- Track 98 : Teatealatte_58, Tredge_57
- Track 99 : Benczkowski14_57, Katyusha_57
- Track 100 : Philon9_55
- Track 101 : Hollow_57
- Track 102 : Demosthenes_55
- Track 103 : ASerpRocky_55
- Track 104 : Niagara_57
- Track 105 : Kvothe_56
- Track 106 : Teech_56
- Track 107 : Gibbles_56
- Track 108 : PatrickStar_58, Kampe_58, RobinSparkles_61, Orchid_57
- Track 109 : Ghobes_35
- Track 110 : Archimedes_37
- Track 111 : Sapo_34
- Track 112 : Camerico_63
- Track 113 : GordDuk1_59
- Track 114 : GordTnk2_60
- Track 115 : Gmala1_55
- Track 116 : GMA3_58
- Track 117 : Jumbo_57
- Track 118 : GodonK_184
- Track 119 : Phendrix_173
- Track 120 : Mareelih_167, Forza_170, Boopy_169, BlueNGold_166
- Track 121 : GMA2_64
- Track 122 : Sixama_168
- Track 123 : Theresita_31
- Track 124 : Krampus_40
- Track 125 : DannyDe_40
- Track 126 : Snakehole_40
- Track 127 : Erudite_39, Dauntless_40
- Track 128 : Aesir_39, JDawG_39
- Track 129 : Sparcetus_42
- Track 130 : Poultruss_40
- Track 131 : Rie18_40
- Track 132 : Pharpay_40, AnnaSerena_40, CoolCookie_45, NarutoRun_40, Gilda_40, Anakin_40, Rachella_40, Kate_41, Potty_40, PhunaPhoke_40, OverHedge_41
- Track 133 : RikSengupta_42
- Track 134 : Crestdrop_41, Hiddenleaf_40, Chivey_40, FreddieHg_40
- Track 135 : JingleBells_40
- Track 136 : Tedro_40

- Track 137 : TinyMiny_42
- Track 138 : Cybele_40, Neptune_40
- Track 139 : Ajin_43
- Track 140 : Kors_43
- Track 141 : Haunter_40
- Track 142 : Karate_39
- Track 143 : Hager_41
- Track 144 : MortySmith_38
- Track 145 : PermaG_34
- Track 146 : Cicada_35, SBlackberry_33
- Track 147 : Jera_34
- Track 148 : Htur_33
- Track 149 : Rasovi_33
- Track 150 : FireCastle_33
- Track 151 : Goodman_34, Johann_34
- Track 152 : TurboVicky_33
- Track 153 : Benry_32
- Track 154 : Sucha_30
- Track 155 : Typher_35
- Track 156 : Milani_33
- Track 157 : Zanella_33
- Track 158 : Racecar_102, Bloom_105, Mimi_107, Talia1610_103
- Track 159 : SJReid_108
- Track 160 : Patbob_102
- Track 161 : Atuin_98
- Track 162 : DunneganBoMo_94
- Track 163 : Kharcho_61, Ottawa_61
- Track 164 : PauloDiaboli_114, A3Wally_114
- Track 165 : Big4_103
- Track 166 : Zooman_98
- Track 167 : Cece_97
- Track 168 : Pumpernickel_111
- Track 169 : DocB7_048
- Track 170 : Wollypog_43
- Track 171 : Reynauld_56
- Track 172 : Trogglehumper_76
- Track 173 : Mbo2_52

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

The start number called the most often in the published annotations is 122, it was called in 69 of the 226 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, BigMack_25, Bodacious_25, BrotherBLo_29, Canowicakte_29, Carpal_29, ChewChew_25, Cholula_29, Chridison_26, Christian_25, CristinaYang_25, Daiboju_26, DrRobert_25, DreamTeam_25, EstebanJulior_26, Eunoia_26, Fluke_29, Gisselle_25, Glenn_29, GreenHearts_29, Greenhouse_29, Herb_26, HunterDalle_26, Huntingdon_29, Joann_29, Jumboset_29, KingBob_26,

Kittykat_25, Korra_30, Lakshmi_29, LilStuart_25, Litotes_29, Lucy_25, Makoto_25, MamaPearl_26, Maria1952_26, MeganNoll_29, Misaeng_29, Moki_25, Nancia_25, Nubia_29, OMalley_26, Oxyfrius_29, PartyCup_29, PitaDog_25, Potatoes_29, Preamble_25, Pumancara_25, RAP15_29, RcigaStruga_29, Rivovina_26, Riverdale_29, Rozby_29, Savage2526_29, Scuttle_29, Sergei_26, Suppi_29, TattModd_29, Temper16_26, Urla_26, Vallejo_29, Vulture_26, Wawa_29, Wayne_29, WonderBoy_25, Zorro_29,

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

- Kalizoi_30, PinkFriday_25,

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

- A3Wally_114, ASerpRocky_55, Adgers_62, Aesir_39, Ajin_43, Amore2_62, Anakin_40, Anamika_57, AnnaSerena_40, Araceli_42, Archimedes_37, Atuin_98, Austin_61, Barbochs_59, Beaver_62, Benczkowski14_57, BenoitCattle_60, Benry_32, Berries_57, Bianmat_57, Big4_103, BigShaq_58, BirksAndSocks_64, Bloom_105, BlueNGold_166, Bogota_43, Boneham_63, Boopy_169, Breezic_59, Butterball_62, Camerico_63, CathyBurgh_58, Cece_97, Charianelly_56, Chelms_59, Chivey_40, Cicada_35, CoolCookie_45, Crestdrop_41, Crosby_42, Cybele_40, Dakiti_60, Damp_55, DannyDe_40, Dauntless_40, Demosthenes_55, Diabla_63, DocB7_048, Dryad_74, DunneganBoMo_94, Edmundo_94, Eggsie_58, Ekhein_59, Erudite_39, Exiguo_58, FelixAlejandro_64, FireCastle_33, Flakey_58, Forza_170, FreddieHg_40, GMA2_64, GMA3_58, GMA7_51, GTE7_50, GalacticEye_57, Ghobes_35, Gibbles_56, Gibson_70, Gilda_40, Gmala1_55, GodonK_184, Goodman_34, GordDuk1_59, GordTnk2_60, Gorko_58, GourdThymes_59, Guillaume_57, Hager_41, Hail2Pitt_56, Harambe_57, Haunter_40, HayZem_63, Hello_57, Henoccus_42, Hiddenleaf_40, Hollow_57, Hotorobo_59, Htur_33, Intolerant_41, JDawG_39, JackieB_42, Jams_57, Jellybones_61, Jera_34, JingleBells_40, Johann_34, John316_62, Jormungandr_57, Jumbo_57, Kampe_58, Karate_39, Kaseim_57, Kate_41, Katyusha_57, Kharcho_61, Kors_43, Kovu_97, Krampus_40, Kvothe_56, Lahirium_57, Laroye_95, LazerLemon_42, LiSara_92, Lidong_57, Linetti_59, Lizz_70, Lizzo_59, Luker_58, Mareelih_167, Marky_44, Mbo2_52, Microdon_41, Milani_33, Mimi_107, Minos_58, Monty_58, MortySmith_38, MrWormie_57, Msay19_64, NarutoRun_40, Neoevie_57, Neptune_40, Newt_58, Niagara_57, Nimi13_57, Orchid_57, Ottawa_61, OverHedge_41, PHTown_70, Patbob_102, PatrickStar_58, PauloDiaboli_114, PermaG_34, Pharpay_40, Phendrix_173, Philon9_55, PhunaPhoke_40, PierreThree_58, PokyPuppy_58, Poland_66, Potty_40, Poultruss_40, Pumpernickel_111, Racecar_102, Rachella_40, Rasovi_33, RemRem_60, Reynauld_56, Rie18_40, RikSengupta_42, RobinSparkles_61, Rooney_70, RoyalG_59, SBlackberry_33, SJReid_108, Salgado_95, Sam12_58, Sapo_34, ShakeNBake_70, Shelley_57, Shrooms_93, Sixama_168, Snakehole_40, Sombrero_60, Sparcetus_42, Squibbles_58, SteveFrench_58, Sticker17_57, Stuff_42, Sucha_30, Talia1610_103, Teal_57, Teatealatte_58, Tedro_40, Teech_56, Theresita_31, TinyMiny_42, Tredge_57, Trogglehumper_76, TurboVicky_33, Typher_35, UNTPL_44, Waltz_91, Wentworth_70, Wheelbite_90, Wilkos_72, Woes_57, Wollypog_43, Yara_66, Zanella_33, Zooman_98,

Summary by start number:

Start 4:

- Found in 5 of 274 (1.8%) of genes in pham
- Manual Annotations of this start: 1 of 226

- Called 20.0% of time when present
- Phage (with cluster) where this start called: TinyMiny_42 (EF),

Start 10:

- Found in 1 of 274 (0.4%) of genes in pham
- Manual Annotations of this start: 1 of 226
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Cece_97 (GD3),

Start 11:

- Found in 5 of 274 (1.8%) of genes in pham
- Manual Annotations of this start: 5 of 226
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BlueNGold_166 (DS), Boopy_169 (DS), Forza_170 (DS), Mareelih_167 (DS), Sixama_168 (DS),

Start 12:

- Found in 11 of 274 (4.0%) of genes in pham
- Manual Annotations of this start: 1 of 226
- Called 81.8% 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), Racecar_102 (FC), SJReid_108 (FC), Talia1610_103 (FC),

Start 13:

- Found in 9 of 274 (3.3%) of genes in pham
- Manual Annotations of this start: 8 of 226
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Dryad_74 (BN), Gibson_70 (BN), Lizz_70 (BN), PHTowN_70 (BN), Rooney_70 (BN), ShakeNBake_70 (BN), Wentworth_70 (BN), Wilkos_72 (BN), Yara_66 (BN),

Start 14:

- Found in 7 of 274 (2.6%) of genes in pham
- Manual Annotations of this start: 7 of 226
- Called 100.0% 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 15:

- Found in 1 of 274 (0.4%) of genes in pham
- Manual Annotations of this start: 1 of 226
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Wollypog_43 (singleton),

Start 18:

- Found in 33 of 274 (12.0%) of genes in pham
- Manual Annotations of this start: 24 of 226
- Called 97.0% of time when present
- Phage (with cluster) where this start called: Aesir_39 (EF), Anakin_40 (EF), AnnaSerena_40 (EF), Chivey_40 (EF), CoolCookie_45 (EF), Crestdrop_41 (EF), Cybele_40 (EF), DannyDe_40 (EF), Dauntless_40 (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_41 (EF), Pharpay_40 (EF), PhunaPhoke_40 (EF), Potty_40 (EF), Poultruss_40 (EF), Rachella_40 (EF), Rie18_40 (EF), Snakehole_40 (EF), Tedro_40 (EF),

Start 19:

- Found in 5 of 274 (1.8%) of genes in pham
- Manual Annotations of this start: 2 of 226
- Called 80.0% of time when present
- Phage (with cluster) where this start called: Ajin_43 (EF), Kors_43 (EF), RikSengupta_42 (EF), Sparcetus_42 (EF),

Start 32:

- Found in 2 of 274 (0.7%) of genes in pham
- Manual Annotations of this start: 2 of 226
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Kharcho_61 (FM), Ottawa_61 (FM),

Start 35:

- Found in 61 of 274 (22.3%) of genes in pham
- No Manual Annotations of this start.
- Called 3.3% of time when present
- Phage (with cluster) where this start called: Berries_57 (CS3), Charianelly_56 (CS3),

Start 48:

- Found in 11 of 274 (4.0%) of genes in pham
- Manual Annotations of this start: 6 of 226
- Called 54.5% 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 51:

- Found in 12 of 274 (4.4%) of genes in pham
- Manual Annotations of this start: 2 of 226
- Called 25.0% of time when present
- Phage (with cluster) where this start called: Demosthenes_55 (CS4), Kvothe_56 (CS4), Teech_56 (CS4),

Start 56:

- Found in 15 of 274 (5.5%) of genes in pham
- Manual Annotations of this start: 2 of 226
- 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_63 (CS1),

Start 81:

- Found in 4 of 274 (1.5%) of genes in pham
- Manual Annotations of this start: 1 of 226
- Called 50.0% of time when present

- Phage (with cluster) where this start called: ASerpRocky_55 (CS4), Philon9_55 (CS4),

Start 82:

- Found in 8 of 274 (2.9%) of genes in pham
- Manual Annotations of this start: 7 of 226
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Edmundo_94 (AL), Kovu_97 (AL), Laroye_95 (AL), LiSara_92 (AL), Salgado_95 (AL), Shrooms_93 (AL), Waltz_91 (AL), Wheelbite_90 (AL),

Start 87:

- Found in 61 of 274 (22.3%) of genes in pham
- Manual Annotations of this start: 1 of 226
- Called 3.3% of time when present
- Phage (with cluster) where this start called: Eggsie_58 (CS2), Woes_57 (CS3),

Start 97:

- Found in 2 of 274 (0.7%) of genes in pham
- Manual Annotations of this start: 1 of 226
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Kaseim_57 (CS3), Luker_58 (CS3),

Start 99:

- Found in 36 of 274 (13.1%) of genes in pham
- Manual Annotations of this start: 23 of 226
- Called 75.0% 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_66 (CS2), RemRem_60 (CS2), RoyalG_59 (CS2), Sam12_58 (CS2), Sombrero_60 (CS2), Squibbles_58 (CS2), SteveFrench_58 (CS2),

Start 103:

- Found in 1 of 274 (0.4%) of genes in pham
- Manual Annotations of this start: 1 of 226
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Trogglehumper_76 (singleton),

Start 110:

- Found in 1 of 274 (0.4%) of genes in pham
- Manual Annotations of this start: 1 of 226
- Called 100.0% of time when present
- Phage (with cluster) where this start called: PokyPuppy_58 (CS2),

Start 111:

- Found in 3 of 274 (1.1%) 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 113:

- Found in 9 of 274 (3.3%) of genes in pham
- No Manual Annotations of this start.
- Called 11.1% of time when present
- Phage (with cluster) where this start called: Htur_33 (EJ),

Start 114:

- Found in 5 of 274 (1.8%) of genes in pham
- Manual Annotations of this start: 5 of 226
- 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 116:

- Found in 7 of 274 (2.6%) of genes in pham
- Manual Annotations of this start: 3 of 226
- Called 85.7% 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 122:

- Found in 73 of 274 (26.6%) of genes in pham
- Manual Annotations of this start: 69 of 226
- Called 97.3% 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), 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), 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), GreenHearts_29 (AK), Greenhouse_29 (AK), Herb_26 (AK), HunterDalle_26 (AK), Huntingdon_29 (AK), Joann_29 (AK), Jumboset_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), Misaeng_29 (AK), Moki_25 (AK), Nancia_25 (AK), Nubia_29 (AK), OMalley_26 (AK), Oxyfrieus_29 (AK), PartyCup_29 (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), Savage2526_29 (AK), Scuttle_29 (AK), Sergei_26 (AK), Suppi_29 (AK), TattModd_29 (AK), Temper16_26 (AK), Urla_26 (AK), Vallejo_29 (AK), Vulture_26 (AK), Wawa_29 (AK), Wayne_29 (AK), WonderBoy_25 (AK), Zorro_29 (AK),

Start 124:

- Found in 1 of 274 (0.4%) of genes in pham
- Manual Annotations of this start: 1 of 226
- Called 100.0% of time when present
- Phage (with cluster) where this start called: FireCastle_33 (EJ),

Start 125:

- Found in 4 of 274 (1.5%) of genes in pham
- Manual Annotations of this start: 2 of 226
- Called 50.0% of time when present
- Phage (with cluster) where this start called: PermaG_34 (EJ), Rasovi_33 (EJ),

Start 126:

- Found in 13 of 274 (4.7%) of genes in pham
- Manual Annotations of this start: 11 of 226
- Called 92.3% of time when present
- Phage (with cluster) where this start called: Berry_32 (EJ), Cicada_35 (EJ), Goodman_34 (EJ), Jera_34 (EJ), Johann_34 (EJ), Milani_33 (EJ), SBlackberry_33 (EJ), Sucha_30 (EJ), Theresita_31 (EA7), TurboVicky_33 (EJ), Typher_35 (EJ), Zanella_33 (EJ),

Start 128:

- Found in 12 of 274 (4.4%) of genes in pham
- Manual Annotations of this start: 12 of 226
- Called 100.0% 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 129:

- Found in 11 of 274 (4.0%) of genes in pham
- Manual Annotations of this start: 2 of 226
- Called 18.2% of time when present
- Phage (with cluster) where this start called: Ghobes_35 (DA), Marky_44 (BH),

Start 142:

- Found in 49 of 274 (17.9%) of genes in pham
- Manual Annotations of this start: 24 of 226
- Called 55.1% of time when present
- Phage (with cluster) where this start called: Anamika_57 (CS3), BenoitCattle_60 (CS2), Bianmat_57 (CS3), BigShaq_58 (CS2), Chelms_59 (CS2), Dakiti_60 (CS2), Damp_55 (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 172:

- Found in 17 of 274 (6.2%) of genes in pham
- No Manual Annotations of this start.
- Called 5.9% of time when present
- Phage (with cluster) where this start called: PinkFriday_25 (AK),

Start 181:

- Found in 86 of 274 (31.4%) of genes in pham
- No Manual Annotations of this start.
- Called 1.2% of time when present

- Phage (with cluster) where this start called: Kalizoi_30 (AK),

Summary by clusters:

There are 26 clusters represented in this pham: GD1, GD2, GD3, GD4, DK, DF, BN, BH, singleton, DA, FC, FM, DF1, DF3, DF2, CS4, CS1, CS3, CS2, EJ, DS, AK, EF, AL, CX, EA7,

Info for manual annotations of cluster AK:

- Start number 122 was manually annotated 69 times for cluster AK.

Info for manual annotations of cluster AL:

- Start number 82 was manually annotated 7 times for cluster AL.

Info for manual annotations of cluster BH:

- Start number 128 was manually annotated 10 times for cluster BH.
- Start number 129 was manually annotated 1 time for cluster BH.

Info for manual annotations of cluster BN:

- Start number 13 was manually annotated 8 times for cluster BN.

Info for manual annotations of cluster CS1:

- Start number 56 was manually annotated 2 times for cluster CS1.

Info for manual annotations of cluster CS2:

- Start number 99 was manually annotated 23 times for cluster CS2.
- Start number 110 was manually annotated 1 time for cluster CS2.
- Start number 142 was manually annotated 5 times for cluster CS2.

Info for manual annotations of cluster CS3:

- Start number 87 was manually annotated 1 time for cluster CS3.
- Start number 97 was manually annotated 1 time for cluster CS3.
- Start number 142 was manually annotated 19 times for cluster CS3.

Info for manual annotations of cluster CS4:

- Start number 48 was manually annotated 6 times for cluster CS4.
- Start number 51 was manually annotated 2 times for cluster CS4.
- Start number 81 was manually annotated 1 time for cluster CS4.

Info for manual annotations of cluster CX:

- Start number 114 was manually annotated 5 times for cluster CX.

Info for manual annotations of cluster DA:

- Start number 128 was manually annotated 2 times for cluster DA.
- Start number 129 was manually annotated 1 time for cluster DA.

Info for manual annotations of cluster DF:

- Start number 116 was manually annotated 1 time for cluster DF.

Info for manual annotations of cluster DF3:

- Start number 116 was manually annotated 1 time for cluster DF3.

Info for manual annotations of cluster DK:

- Start number 14 was manually annotated 2 times for cluster DK.

Info for manual annotations of cluster DS:

- Start number 11 was manually annotated 5 times for cluster DS.

Info for manual annotations of cluster EA7:

- Start number 126 was manually annotated 1 time for cluster EA7.

Info for manual annotations of cluster EF:

- Start number 4 was manually annotated 1 time for cluster EF.
- Start number 18 was manually annotated 24 times for cluster EF.
- Start number 19 was manually annotated 2 times for cluster EF.

Info for manual annotations of cluster EJ:

- Start number 124 was manually annotated 1 time for cluster EJ.
- Start number 125 was manually annotated 2 times for cluster EJ.
- Start number 126 was manually annotated 10 times for cluster EJ.

Info for manual annotations of cluster FC:

- Start number 12 was manually annotated 1 time for cluster FC.

Info for manual annotations of cluster FM:

- Start number 32 was manually annotated 2 times for cluster FM.

Info for manual annotations of cluster GD1:

- Start number 14 was manually annotated 2 times for cluster GD1.

Info for manual annotations of cluster GD2:

- Start number 14 was manually annotated 2 times for cluster GD2.

Info for manual annotations of cluster GD3:

- Start number 10 was manually annotated 1 time for cluster GD3.

Info for manual annotations of cluster GD4:

- Start number 14 was manually annotated 1 time for cluster GD4.

Gene Information:

Gene: A3Wally_114 Start: 79188, Stop: 77338, Start Num: 14

Candidate Starts for A3Wally_114:

(6, 79257), (7, 79251), (Start: 14 @79188 has 7 MA's), (24, 79143), (26, 79131), (43, 79005), (60, 78942), (94, 78867), (134, 78759), (141, 78741), (157, 78672), (165, 78645), (194, 78585), (238, 78420), (271, 78276), (287, 78189), (293, 78162), (304, 78126), (306, 78117), (319, 78060), (321, 78054), (331, 78009), (337, 77997), (345, 77976), (354, 77952), (365, 77916), (395, 77871), (424, 77787), (425, 77784), (428, 77778), (442, 77715), (464, 77613), (483, 77526), (490, 77484), (503, 77433),

Gene: ASerpRocky_55 Start: 52672, Stop: 51098, Start Num: 81

Candidate Starts for ASerpRocky_55:

(Start: 48 @52804 has 6 MA's), (Start: 51 @52792 has 2 MA's), (73, 52693), (Start: 81 @52672 has 1 MA's), (105, 52606), (143, 52507), (153, 52471), (158, 52447), (162, 52438), (164, 52429), (176, 52381), (184, 52357), (196, 52315), (201, 52300), (225, 52225), (237, 52165), (238, 52162), (254, 52096), (256, 52093), (264, 52057), (265, 52054), (270, 52027), (274, 52015), (281, 51967), (289, 51934), (294, 51910), (304, 51886), (310, 51862), (325, 51796), (360, 51697), (390, 51598), (402, 51565), (403, 51562), (449, 51445), (450, 51442), (463, 51385), (466, 51367), (489, 51250), (490, 51247), (494, 51235), (525, 51136), (531, 51115),

Gene: Adgers_62 Start: 52192, Stop: 50660, Start Num: 99

Candidate Starts for Adgers_62:

(35, 52447), (44, 52396), (69, 52291), (78, 52261), (Start: 87 @52228 has 1 MA's), (89, 52219), (Start: 99 @52192 has 23 MA's), (153, 52024), (164, 51982), (169, 51964), (176, 51934), (180, 51922), (184, 51910), (185, 51904), (190, 51883), (239, 51715), (261, 51628), (264, 51613), (266, 51601), (274, 51571), (304, 51442), (314, 51400), (318, 51382), (319, 51379), (322, 51370), (325, 51352), (360, 51265), (403, 51130), (407, 51115), (412, 51094), (449, 51013), (450, 51010), (463, 50953), (464, 50947), (466, 50935), (478, 50884), (483, 50860), (489, 50821), (493, 50809), (494, 50806), (521, 50713), (525, 50698),

Gene: Aesir_39 Start: 25591, Stop: 27498, Start Num: 18

Candidate Starts for Aesir_39:

(2, 25417), (Start: 18 @25591 has 24 MA's), (28, 25654), (31, 25675), (36, 25729), (67, 25864), (84, 25906), (100, 25951), (157, 26125), (160, 26134), (186, 26224), (197, 26266), (202, 26281), (245, 26467), (278, 26602), (281, 26614), (289, 26647), (312, 26740), (321, 26776), (349, 26866), (361, 26893), (455, 27202), (456, 27205), (469, 27265), (487, 27355), (495, 27385), (506, 27427), (523, 27478),

Gene: Ajin_43 Start: 26641, Stop: 28575, Start Num: 19

Candidate Starts for Ajin_43:

(1, 26401), (Start: 4 @26545 has 1 MA's), (17, 26635), (Start: 19 @26641 has 2 MA's), (36, 26788), (38, 26806), (39, 26815), (84, 26965), (127, 27091), (157, 27181), (160, 27190), (186, 27280), (197, 27322), (207, 27352), (238, 27484), (281, 27670), (285, 27688), (289, 27703), (304, 27760), (317, 27820), (338, 27892), (392, 28030), (415, 28096), (423, 28126), (443, 28204), (456, 28282), (469, 28342), (480, 28381), (487, 28432), (494, 28450), (524, 28558),

Gene: Albanese_29 Start: 22144, Stop: 23535, Start Num: 122

Candidate Starts for Albanese_29:

(Start: 122 @22144 has 69 MA's), (155, 22231), (181, 22303), (182, 22306), (204, 22369), (206, 22372), (212, 22390), (214, 22396), (224, 22423), (240, 22480), (247, 22531), (261, 22570), (268, 22606), (273, 22624), (277, 22660), (283, 22681), (286, 22699), (296, 22732), (311, 22771), (320, 22813), (326, 22840), (335, 22864), (347, 22900), (351, 22906), (363, 22939), (367, 22954), (370, 22963), (377, 23008), (393, 23041), (394, 23044), (420, 23128), (427, 23149), (429, 23161), (436, 23179), (454, 23269), (461, 23290), (462, 23293), (467, 23317), (468, 23326), (486, 23413), (511, 23503), (518, 23527),

Gene: Aledel_26 Start: 21745, Stop: 23139, Start Num: 122

Candidate Starts for Aledel_26:

(Start: 122 @21745 has 69 MA's), (146, 21802), (172, 21889), (181, 21907), (182, 21910), (212, 21994), (224, 22027), (238, 22078), (240, 22084), (251, 22144), (261, 22174), (268, 22210), (273, 22228), (283, 22285), (286, 22303), (288, 22309), (296, 22336), (320, 22417), (326, 22444), (335, 22468), (342, 22483), (351, 22510), (363, 22543), (367, 22558), (408, 22690), (418, 22726), (427, 22753), (429, 22765), (436, 22783), (454, 22873), (456, 22879), (461, 22894), (462, 22897), (468, 22930), (483, 22990), (486, 23017), (502, 23074), (511, 23107), (518, 23131),

Gene: Amore2_62 Start: 52713, Stop: 51082, Start Num: 56

Candidate Starts for Amore2_62:

(Start: 56 @52713 has 2 MA's), (61, 52701), (74, 52650), (76, 52644), (95, 52587), (153, 52446), (164, 52404), (167, 52392), (176, 52356), (177, 52353), (185, 52326), (196, 52290), (200, 52278), (208, 52263), (236, 52155), (261, 52050), (264, 52035), (289, 51912), (304, 51864), (310, 51840), (314, 51822), (325, 51774), (343, 51723), (360, 51687), (364, 51669), (403, 51552), (416, 51501), (444, 51459), (455, 51399), (466, 51357), (478, 51306), (483, 51282), (525, 51120), (531, 51099),

Gene: Anakin_40 Start: 25911, Stop: 27818, Start Num: 18

Candidate Starts for Anakin_40:

(Start: 18 @25911 has 24 MA's), (28, 25974), (31, 25995), (36, 26049), (84, 26226), (100, 26271), (157, 26445), (160, 26454), (186, 26544), (202, 26601), (245, 26787), (278, 26922), (281, 26934), (289, 26967), (321, 27096), (361, 27213), (404, 27288), (455, 27522), (456, 27525), (469, 27585), (487, 27675), (495, 27705), (506, 27747), (523, 27798),

Gene: Anamika_57 Start: 52887, Stop: 51475, Start Num: 142

Candidate Starts for Anamika_57:

(35, 53235), (66, 53106), (86, 53019), (Start: 87 @53016 has 1 MA's), (Start: 142 @52887 has 24 MA's), (153, 52842), (176, 52752), (177, 52749), (179, 52743), (185, 52722), (208, 52659), (236, 52551), (239, 52533), (261, 52446), (264, 52431), (274, 52389), (289, 52308), (304, 52260), (314, 52218), (318, 52200), (319, 52197), (325, 52170), (343, 52119), (360, 52083), (373, 52032), (403, 51948), (408, 51927), (463, 51771), (464, 51765), (466, 51753), (493, 51627), (525, 51513),

Gene: AnnaSerena_40 Start: 25946, Stop: 27853, Start Num: 18

Candidate Starts for AnnaSerena_40:

(Start: 18 @25946 has 24 MA's), (28, 26009), (31, 26030), (36, 26084), (84, 26261), (100, 26306), (157, 26480), (160, 26489), (186, 26579), (202, 26636), (245, 26822), (278, 26957), (281, 26969), (289, 27002), (321, 27131), (361, 27248), (404, 27323), (455, 27557), (456, 27560), (469, 27620), (487, 27710), (495, 27740), (506, 27782), (523, 27833),

Gene: AppleCider_29 Start: 22130, Stop: 23524, Start Num: 122

Candidate Starts for AppleCider_29:

(Start: 122 @22130 has 69 MA's), (146, 22187), (181, 22292), (212, 22379), (238, 22463), (239, 22466), (240, 22469), (261, 22559), (268, 22595), (270, 22604), (283, 22670), (286, 22688), (296, 22721), (303, 22733), (320, 22802), (326, 22829), (335, 22853), (347, 22889), (351, 22895), (363, 22928), (367, 22943), (370, 22952), (398, 23042), (418, 23111), (427, 23138), (432, 23156), (436, 23168), (454, 23258), (456, 23264), (459, 23273), (461, 23279), (468, 23315), (486, 23402), (500, 23453), (511, 23492), (518, 23516),

Gene: Araceli_42 Start: 30875, Stop: 32269, Start Num: 128

Candidate Starts for Araceli_42:

(Start: 128 @30875 has 12 MA's), (Start: 129 @30878 has 2 MA's), (153, 30953), (161, 30977), (173, 31007), (177, 31010), (181, 31022), (189, 31055), (218, 31112), (226, 31136), (238, 31181), (240, 31187), (251, 31247), (258, 31268), (270, 31322), (291, 31421), (297, 31448), (301, 31457), (332, 31583), (351, 31631), (359, 31652), (363, 31664), (367, 31679), (374, 31709), (380, 31742), (383, 31751), (401, 31793), (419, 31859), (420, 31862), (427, 31883), (432, 31901), (437, 31919), (450, 31973), (454, 32003), (468, 32060), (469, 32063), (482, 32111), (493, 32165), (509, 32234), (515, 32252),

Gene: Archimedes_37 Start: 33084, Stop: 31684, Start Num: 128

Candidate Starts for Archimedes_37:

(Start: 128 @33084 has 12 MA's), (143, 33042), (153, 33006), (158, 32988), (161, 32982), (173, 32952), (181, 32937), (182, 32934), (212, 32850), (269, 32628), (273, 32616), (297, 32502), (332,

32376), (339, 32364), (345, 32343), (346, 32340), (351, 32328), (363, 32295), (367, 32280), (372, 32256), (380, 32220), (383, 32211), (418, 32112), (436, 32055), (439, 32043), (441, 32037), (459, 31950), (465, 31929), (468, 31908), (489, 31815), (520, 31689),

Gene: Atuin_98 Start: 80621, Stop: 82477, Start Num: 12

Candidate Starts for Atuin_98:

(Start: 12 @80621 has 1 MA's), (62, 80894), (113, 80999), (152, 81122), (154, 81134), (156, 81143), (205, 81239), (226, 81314), (238, 81374), (274, 81527), (280, 81572), (293, 81632), (306, 81677), (319, 81734), (321, 81740), (328, 81773), (331, 81785), (337, 81797), (384, 81914), (386, 81917), (413, 81974), (423, 82010), (428, 82022), (431, 82043), (450, 82127), (470, 82220), (476, 82244), (514, 82412), (516, 82415),

Gene: Austin_61 Start: 52711, Stop: 51080, Start Num: 56

Candidate Starts for Austin_61:

(Start: 56 @52711 has 2 MA's), (61, 52699), (74, 52648), (76, 52642), (95, 52585), (153, 52444), (164, 52402), (167, 52390), (176, 52354), (177, 52351), (185, 52324), (196, 52288), (200, 52276), (208, 52261), (236, 52153), (261, 52048), (264, 52033), (289, 51910), (304, 51862), (310, 51838), (314, 51820), (325, 51772), (343, 51721), (360, 51685), (364, 51667), (403, 51550), (416, 51499), (444, 51457), (455, 51397), (466, 51355), (478, 51304), (483, 51280), (525, 51118), (531, 51097),

Gene: AustinPowers_26 Start: 21746, Stop: 23140, Start Num: 122

Candidate Starts for AustinPowers_26:

(Start: 122 @21746 has 69 MA's), (146, 21803), (172, 21890), (181, 21908), (182, 21911), (212, 21995), (224, 22028), (238, 22079), (240, 22085), (251, 22145), (261, 22175), (268, 22211), (273, 22229), (277, 22265), (283, 22286), (286, 22304), (288, 22310), (296, 22337), (320, 22418), (326, 22445), (335, 22469), (342, 22484), (351, 22511), (363, 22544), (367, 22559), (418, 22727), (427, 22754), (429, 22766), (436, 22784), (454, 22874), (456, 22880), (461, 22895), (462, 22898), (483, 22991), (486, 23018), (502, 23075), (511, 23108), (518, 23132),

Gene: Barbochs_59 Start: 51736, Stop: 50204, Start Num: 99

Candidate Starts for Barbochs_59:

(35, 51991), (44, 51940), (54, 51889), (69, 51835), (78, 51805), (Start: 87 @51772 has 1 MA's), (89, 51763), (Start: 99 @51736 has 23 MA's), (153, 51568), (164, 51526), (176, 51478), (180, 51466), (184, 51454), (185, 51448), (190, 51427), (200, 51400), (239, 51259), (261, 51172), (264, 51157), (266, 51145), (274, 51115), (282, 51064), (288, 51037), (304, 50986), (310, 50962), (314, 50944), (318, 50926), (319, 50923), (325, 50896), (340, 50854), (360, 50809), (403, 50674), (407, 50659), (412, 50638), (444, 50581), (449, 50557), (463, 50497), (464, 50491), (465, 50485), (466, 50479), (478, 50428), (483, 50404), (489, 50365), (493, 50353), (494, 50350), (521, 50257), (525, 50242), (531, 50221),

Gene: Beaver_62 Start: 53506, Stop: 51974, Start Num: 99

Candidate Starts for Beaver_62:

(35, 53761), (44, 53710), (54, 53659), (69, 53605), (78, 53575), (Start: 87 @53542 has 1 MA's), (89, 53533), (Start: 99 @53506 has 23 MA's), (153, 53338), (164, 53296), (176, 53248), (180, 53236), (184, 53224), (185, 53218), (190, 53197), (200, 53170), (239, 53029), (261, 52942), (264, 52927), (266, 52915), (274, 52885), (282, 52834), (288, 52807), (304, 52756), (314, 52714), (318, 52696), (319, 52693), (325, 52666), (340, 52624), (360, 52579), (364, 52561), (403, 52444), (407, 52429), (412, 52408), (444, 52351), (449, 52327), (463, 52267), (464, 52261), (465, 52255), (466, 52249), (478, 52198), (483, 52174), (489, 52135), (493, 52123), (521, 52027), (525, 52012), (531, 51991),

Gene: Beethoven_29 Start: 22100, Stop: 23500, Start Num: 122

Candidate Starts for Beethoven_29:

(Start: 122 @22100 has 69 MA's), (146, 22163), (181, 22268), (182, 22271), (212, 22355), (224, 22388), (238, 22439), (240, 22445), (258, 22526), (259, 22529), (261, 22535), (268, 22571), (273, 22589), (274, 22592), (277, 22625), (283, 22646), (286, 22664), (296, 22697), (320, 22778), (326, 22805), (339, 22835), (342, 22844), (351, 22871), (363, 22904), (367, 22919), (377, 22973), (387, 22994), (393, 23006), (398, 23018), (456, 23240), (459, 23249), (461, 23255), (468, 23291), (483, 23351), (486, 23378), (511, 23468),

Gene: Benczkowski14_57 Start: 53319, Stop: 51616, Start Num: 48

Candidate Starts for Benczkowski14_57:

(Start: 48 @53319 has 6 MA's), (Start: 51 @53307 has 2 MA's), (105, 53124), (Start: 142 @53034 has 24 MA's), (143, 53025), (153, 52989), (158, 52965), (162, 52956), (164, 52947), (176, 52899), (184, 52875), (208, 52803), (210, 52800), (215, 52782), (225, 52743), (254, 52614), (264, 52575), (265, 52572), (268, 52554), (270, 52545), (274, 52533), (281, 52485), (289, 52452), (304, 52404), (310, 52380), (325, 52314), (360, 52215), (390, 52116), (394, 52107), (402, 52083), (403, 52080), (444, 51987), (449, 51963), (450, 51960), (463, 51903), (466, 51885), (489, 51768), (490, 51765), (494, 51753), (525, 51654), (531, 51633),

Gene: Bennie_25 Start: 20566, Stop: 21960, Start Num: 122

Candidate Starts for Bennie_25:

(Start: 122 @20566 has 69 MA's), (146, 20623), (181, 20728), (182, 20731), (212, 20815), (224, 20848), (238, 20899), (240, 20905), (261, 20995), (268, 21031), (273, 21049), (274, 21052), (277, 21085), (283, 21106), (320, 21238), (326, 21265), (339, 21295), (342, 21304), (351, 21331), (363, 21364), (367, 21379), (374, 21406), (377, 21433), (394, 21469), (408, 21511), (427, 21574), (432, 21592), (450, 21664), (452, 21688), (454, 21694), (455, 21697), (461, 21715), (462, 21718), (467, 21742), (468, 21751), (486, 21838), (500, 21889), (511, 21928),

Gene: BenoitCattle_60 Start: 52020, Stop: 50611, Start Num: 142

Candidate Starts for BenoitCattle_60:

(35, 52398), (44, 52347), (54, 52296), (69, 52242), (78, 52212), (Start: 87 @52179 has 1 MA's), (89, 52170), (Start: 99 @52143 has 23 MA's), (Start: 142 @52020 has 24 MA's), (153, 51975), (164, 51933), (176, 51885), (177, 51882), (179, 51876), (180, 51873), (184, 51861), (185, 51855), (200, 51807), (201, 51804), (236, 51684), (239, 51666), (254, 51603), (261, 51579), (264, 51564), (274, 51522), (282, 51471), (304, 51393), (318, 51333), (319, 51330), (322, 51321), (325, 51303), (340, 51261), (360, 51216), (403, 51081), (407, 51066), (412, 51045), (449, 50964), (450, 50961), (463, 50904), (464, 50898), (466, 50886), (478, 50835), (483, 50811), (489, 50772), (493, 50760), (521, 50664), (525, 50649),

Gene: Benry_32 Start: 21495, Stop: 22922, Start Num: 126

Candidate Starts for Benry_32:

(Start: 126 @21495 has 11 MA's), (238, 21849), (239, 21852), (242, 21873), (264, 21960), (274, 22002), (346, 22284), (351, 22296), (359, 22317), (367, 22344), (373, 22371), (374, 22374), (377, 22401), (380, 22407), (397, 22443), (427, 22542), (444, 22605), (449, 22623), (450, 22626), (462, 22680), (468, 22713), (472, 22725), (482, 22764), (486, 22800), (489, 22806), (493, 22818), (500, 22851), (507, 22881),

Gene: Berries_57 Start: 53207, Stop: 51447, Start Num: 35

Candidate Starts for Berries_57:

(35, 53207), (66, 53078), (Start: 87 @52988 has 1 MA's), (Start: 142 @52859 has 24 MA's), (153, 52814), (176, 52724), (177, 52721), (179, 52715), (185, 52694), (208, 52631), (236, 52523), (239, 52505), (261, 52418), (264, 52403), (274, 52361), (289, 52280), (304, 52232), (314, 52190), (318, 52172), (319, 52169), (325, 52142), (343, 52091), (360, 52055), (373, 52004), (403, 51920), (408, 51899), (463, 51743), (464, 51737), (466, 51725), (493, 51599), (525, 51485),

Gene: Bianmat_57 Start: 52899, Stop: 51487, Start Num: 142

Candidate Starts for Bianmat_57:

(35, 53247), (66, 53118), (Start: 87 @53028 has 1 MA's), (Start: 142 @52899 has 24 MA's), (153, 52854), (176, 52764), (177, 52761), (179, 52755), (185, 52734), (208, 52671), (228, 52593), (236, 52563), (239, 52545), (261, 52458), (264, 52443), (274, 52401), (289, 52320), (304, 52272), (314, 52230), (318, 52212), (319, 52209), (325, 52182), (343, 52131), (360, 52095), (373, 52044), (403, 51960), (408, 51939), (463, 51783), (464, 51777), (466, 51765), (493, 51639), (525, 51525),

Gene: Big4_103 Start: 78367, Stop: 76427, Start Num: 14

Candidate Starts for Big4_103:

(Start: 14 @78367 has 7 MA's), (37, 78214), (60, 78121), (94, 78046), (121, 77965), (132, 77941), (195, 77665), (271, 77359), (288, 77269), (304, 77209), (306, 77200), (319, 77143), (321, 77137), (328, 77104), (331, 77092), (336, 77083), (345, 77059), (365, 76999), (425, 76867), (428, 76861), (442, 76798), (445, 76777), (447, 76771), (464, 76696), (465, 76690), (468, 76669), (483, 76609), (490, 76567), (495, 76543), (498, 76531),

Gene: BigMack_25 Start: 20560, Stop: 21960, Start Num: 122

Candidate Starts for BigMack_25:

(Start: 122 @20560 has 69 MA's), (146, 20623), (181, 20728), (182, 20731), (212, 20815), (224, 20848), (238, 20899), (240, 20905), (258, 20986), (259, 20989), (261, 20995), (268, 21031), (273, 21049), (274, 21052), (277, 21085), (283, 21106), (286, 21124), (320, 21238), (326, 21265), (339, 21295), (342, 21304), (351, 21331), (363, 21364), (367, 21379), (374, 21406), (380, 21439), (408, 21511), (427, 21574), (432, 21592), (442, 21625), (454, 21694), (456, 21700), (461, 21715), (462, 21718), (468, 21751), (483, 21811), (486, 21838), (511, 21928),

Gene: BigShaq_58 Start: 52025, Stop: 50616, Start Num: 142

Candidate Starts for BigShaq_58:

(35, 52403), (44, 52352), (54, 52301), (69, 52247), (78, 52217), (Start: 87 @52184 has 1 MA's), (89, 52175), (Start: 99 @52148 has 23 MA's), (Start: 142 @52025 has 24 MA's), (153, 51980), (164, 51938), (176, 51890), (177, 51887), (179, 51881), (180, 51878), (184, 51866), (185, 51860), (196, 51824), (200, 51812), (201, 51809), (236, 51689), (239, 51671), (261, 51584), (264, 51569), (274, 51527), (282, 51476), (288, 51449), (304, 51398), (318, 51338), (319, 51335), (322, 51326), (325, 51308), (340, 51266), (360, 51221), (403, 51086), (407, 51071), (412, 51050), (449, 50969), (450, 50966), (463, 50909), (464, 50903), (466, 50891), (478, 50840), (482, 50825), (483, 50816), (489, 50777), (493, 50765), (521, 50669), (525, 50654),

Gene: BirksAndSocks_64 Start: 53856, Stop: 52324, Start Num: 99

Candidate Starts for BirksAndSocks_64:

(35, 54111), (44, 54060), (69, 53955), (78, 53925), (Start: 87 @53892 has 1 MA's), (89, 53883), (Start: 99 @53856 has 23 MA's), (153, 53688), (164, 53646), (169, 53628), (176, 53598), (180, 53586), (184, 53574), (185, 53568), (190, 53547), (239, 53379), (261, 53292), (264, 53277), (266, 53265), (274, 53235), (304, 53106), (310, 53082), (314, 53064), (318, 53046), (319, 53043), (322, 53034), (325, 53016), (360, 52929), (403, 52794), (407, 52779), (412, 52758), (449, 52677), (450, 52674), (463, 52617), (464, 52611), (466, 52599), (478, 52548), (483, 52524), (489, 52485), (493, 52473), (494, 52470), (521, 52377), (525, 52362),

Gene: Bloom_105 Start: 80738, Stop: 82576, Start Num: 12

Candidate Starts for Bloom_105:

(Start: 12 @80738 has 1 MA's), (27, 80819), (38, 80897), (62, 80993), (94, 81053), (109, 81083), (147, 81203), (159, 81254), (196, 81314), (276, 81653), (289, 81710), (293, 81731), (306, 81776), (319, 81833), (321, 81839), (328, 81872), (331, 81884), (337, 81896), (353, 81941), (365, 81980), (395, 82037), (405, 82043), (413, 82076), (431, 82145), (450, 82229), (476, 82346), (517, 82520), (530, 82562),

Gene: BlueNGold_166 Start: 96830, Stop: 94920, Start Num: 11

Candidate Starts for BlueNGold_166:

(Start: 11 @96830 has 5 MA's), (49, 96626), (60, 96578), (72, 96533), (96, 96452), (104, 96440), (140, 96335), (147, 96308), (194, 96203), (203, 96179), (242, 96014), (304, 95747), (306, 95738), (312, 95711), (328, 95642), (413, 95393), (430, 95327), (436, 95303), (465, 95168), (479, 95108), (493, 95036),

Gene: Bodacious_25 Start: 20580, Stop: 21974, Start Num: 122

Candidate Starts for Bodacious_25:

(Start: 122 @20580 has 69 MA's), (146, 20637), (181, 20742), (182, 20745), (212, 20829), (224, 20862), (238, 20913), (240, 20919), (258, 21000), (259, 21003), (261, 21009), (268, 21045), (273, 21063), (274, 21066), (277, 21099), (283, 21120), (320, 21252), (326, 21279), (342, 21318), (347, 21339), (351, 21345), (363, 21378), (367, 21393), (370, 21402), (377, 21447), (394, 21483), (408, 21525), (427, 21588), (432, 21606), (454, 21708), (455, 21711), (461, 21729), (462, 21732), (467, 21756), (468, 21765), (486, 21852), (511, 21942), (518, 21966),

Gene: Bogota_43 Start: 31399, Stop: 32793, Start Num: 128

Candidate Starts for Bogota_43:

(Start: 128 @31399 has 12 MA's), (Start: 129 @31402 has 2 MA's), (153, 31477), (161, 31501), (173, 31531), (181, 31546), (218, 31636), (227, 31672), (251, 31771), (254, 31780), (271, 31849), (297, 31972), (332, 32107), (344, 32134), (351, 32155), (359, 32176), (374, 32233), (380, 32266), (383, 32275), (401, 32317), (419, 32383), (427, 32407), (432, 32425), (437, 32443), (450, 32497), (454, 32527), (468, 32584), (469, 32587), (482, 32635), (488, 32674), (493, 32689), (509, 32758), (515, 32776), (518, 32785),

Gene: Boneham_63 Start: 53757, Stop: 52225, Start Num: 99

Candidate Starts for Boneham_63:

(35, 54012), (44, 53961), (69, 53856), (78, 53826), (Start: 87 @53793 has 1 MA's), (89, 53784), (Start: 99 @53757 has 23 MA's), (153, 53589), (164, 53547), (169, 53529), (176, 53499), (180, 53487), (184, 53475), (185, 53469), (190, 53448), (239, 53280), (261, 53193), (264, 53178), (266, 53166), (274, 53136), (304, 53007), (310, 52983), (314, 52965), (318, 52947), (319, 52944), (322, 52935), (325, 52917), (360, 52830), (403, 52695), (407, 52680), (412, 52659), (449, 52578), (450, 52575), (463, 52518), (464, 52512), (466, 52500), (478, 52449), (483, 52425), (489, 52386), (493, 52374), (494, 52371), (521, 52278), (525, 52263),

Gene: Boopy_169 Start: 96841, Stop: 94931, Start Num: 11

Candidate Starts for Boopy_169:

(Start: 11 @96841 has 5 MA's), (49, 96637), (60, 96589), (72, 96544), (96, 96463), (104, 96451), (140, 96346), (147, 96319), (194, 96214), (203, 96190), (242, 96025), (304, 95758), (306, 95749), (312, 95722), (328, 95653), (413, 95404), (430, 95338), (436, 95314), (465, 95179), (479, 95119), (493, 95047),

Gene: Breezic_59 Start: 51749, Stop: 50217, Start Num: 99

Candidate Starts for Breezic_59:

(35, 52004), (44, 51953), (54, 51902), (69, 51848), (78, 51818), (Start: 87 @51785 has 1 MA's), (89, 51776), (Start: 99 @51749 has 23 MA's), (153, 51581), (164, 51539), (176, 51491), (180, 51479), (184, 51467), (185, 51461), (190, 51440), (200, 51413), (239, 51272), (261, 51185), (264, 51170), (266, 51158), (274, 51128), (282, 51077), (288, 51050), (304, 50999), (318, 50939), (319, 50936), (325, 50909), (340, 50867), (360, 50822), (403, 50687), (407, 50672), (412, 50651), (444, 50594), (449, 50570), (450, 50567), (463, 50510), (464, 50504), (465, 50498), (466, 50492), (478, 50441), (483, 50417), (489, 50378), (493, 50366), (494, 50363), (521, 50270), (525, 50255), (531, 50234),

Gene: BrotherBLo_29 Start: 22106, Stop: 23506, Start Num: 122

Candidate Starts for BrotherBLo_29:

(Start: 122 @22106 has 69 MA's), (146, 22169), (181, 22274), (212, 22361), (224, 22394), (238, 22445), (240, 22451), (258, 22532), (259, 22535), (261, 22541), (268, 22577), (273, 22595), (274, 22598), (277, 22631), (283, 22652), (286, 22670), (320, 22784), (326, 22811), (339, 22841), (342, 22850), (351, 22877), (363, 22910), (367, 22925), (377, 22979), (387, 23000), (393, 23012), (398, 23024), (454, 23240), (455, 23243), (456, 23246), (459, 23255), (461, 23261), (468, 23297), (483, 23357), (486, 23384), (511, 23474),

Gene: Butterball_62 Start: 53762, Stop: 52230, Start Num: 99

Candidate Starts for Butterball_62:

(35, 54017), (44, 53966), (69, 53861), (78, 53831), (Start: 87 @53798 has 1 MA's), (89, 53789), (Start: 99 @53762 has 23 MA's), (153, 53594), (164, 53552), (169, 53534), (176, 53504), (180, 53492), (184, 53480), (185, 53474), (190, 53453), (239, 53285), (261, 53198), (264, 53183), (266, 53171), (274, 53141), (304, 53012), (310, 52988), (314, 52970), (318, 52952), (319, 52949), (322, 52940), (325, 52922), (360, 52835), (403, 52700), (407, 52685), (412, 52664), (449, 52583), (450, 52580), (463, 52523), (464, 52517), (466, 52505), (478, 52454), (483, 52430), (489, 52391), (493, 52379), (494, 52376), (521, 52283), (525, 52268),

Gene: Camerico_63 Start: 54751, Stop: 53234, Start Num: 116

Candidate Starts for Camerico_63:

(Start: 116 @54751 has 3 MA's), (Start: 142 @54673 has 24 MA's), (146, 54655), (151, 54643), (153, 54628), (170, 54574), (176, 54556), (178, 54550), (192, 54496), (199, 54478), (220, 54418), (226, 54394), (241, 54313), (250, 54274), (260, 54247), (265, 54226), (270, 54199), (273, 54190), (304, 54058), (310, 54034), (314, 54016), (318, 53998), (321, 53989), (396, 53773), (398, 53767), (402, 53752), (414, 53701), (435, 53647), (466, 53506), (482, 53440), (483, 53431), (486, 53398),

Gene: Canowicakte_29 Start: 22165, Stop: 23559, Start Num: 122

Candidate Starts for Canowicakte_29:

(Start: 122 @22165 has 69 MA's), (146, 22222), (181, 22327), (212, 22414), (238, 22498), (239, 22501), (240, 22504), (261, 22594), (268, 22630), (270, 22639), (273, 22648), (283, 22705), (286, 22723), (296, 22756), (303, 22768), (320, 22837), (326, 22864), (335, 22888), (351, 22930), (363, 22963), (367, 22978), (370, 22987), (398, 23077), (418, 23146), (427, 23173), (432, 23191), (436, 23203), (454, 23293), (456, 23299), (459, 23308), (461, 23314), (468, 23350), (486, 23437), (500, 23488), (511, 23527), (518, 23551),

Gene: Carpal_29 Start: 22107, Stop: 23507, Start Num: 122

Candidate Starts for Carpal_29:

(Start: 122 @22107 has 69 MA's), (146, 22170), (181, 22275), (182, 22278), (212, 22362), (224, 22395), (238, 22446), (240, 22452), (258, 22533), (259, 22536), (261, 22542), (268, 22578), (273, 22596), (274, 22599), (277, 22632), (283, 22653), (286, 22671), (296, 22704), (320, 22785), (326, 22812), (339, 22842), (342, 22851), (351, 22878), (363, 22911), (367, 22926), (377, 22980), (387, 23001), (393, 23013), (398, 23025), (456, 23247), (459, 23256), (461, 23262), (468, 23298), (483, 23358), (486, 23385), (511, 23475),

Gene: CathyBurgh_58 Start: 52326, Stop: 50794, Start Num: 99

Candidate Starts for CathyBurgh_58:

(35, 52581), (44, 52530), (54, 52479), (69, 52425), (78, 52395), (Start: 87 @52362 has 1 MA's), (89, 52353), (Start: 99 @52326 has 23 MA's), (153, 52158), (164, 52116), (176, 52068), (180, 52056), (184, 52044), (185, 52038), (190, 52017), (200, 51990), (239, 51849), (261, 51762), (264, 51747), (266, 51735), (274, 51705), (282, 51654), (288, 51627), (304, 51576), (310, 51552), (314, 51534), (318, 51516), (319, 51513), (325, 51486), (340, 51444), (360, 51399), (403, 51264), (407, 51249), (412, 51228), (444, 51171), (449, 51147), (463, 51087), (464, 51081), (465, 51075), (466, 51069),

(478, 51018), (483, 50994), (489, 50955), (493, 50943), (494, 50940), (521, 50847), (525, 50832), (531, 50811),

Gene: Cece_97 Start: 81318, Stop: 79462, Start Num: 10

Candidate Starts for Cece_97:

(Start: 10 @81318 has 1 MA's), (26, 81255), (33, 81186), (55, 81078), (94, 80991), (Start: 125 @80901 has 2 MA's), (140, 80868), (Start: 142 @80862 has 24 MA's), (159, 80790), (194, 80709), (196, 80703), (238, 80544), (271, 80400), (282, 80340), (288, 80310), (304, 80250), (306, 80241), (319, 80184), (321, 80178), (328, 80145), (331, 80133), (345, 80100), (365, 80040), (424, 79911), (425, 79908), (431, 79881), (442, 79839), (445, 79818), (465, 79731), (483, 79650), (490, 79608), (495, 79584), (510, 79527),

Gene: Charianelly_56 Start: 52957, Stop: 51197, Start Num: 35

Candidate Starts for Charianelly_56:

(35, 52957), (66, 52828), (Start: 87 @52738 has 1 MA's), (Start: 142 @52609 has 24 MA's), (153, 52564), (176, 52474), (177, 52471), (179, 52465), (185, 52444), (208, 52381), (228, 52303), (236, 52273), (239, 52255), (261, 52168), (264, 52153), (274, 52111), (289, 52030), (304, 51982), (314, 51940), (318, 51922), (319, 51919), (325, 51892), (343, 51841), (360, 51805), (373, 51754), (403, 51670), (408, 51649), (463, 51493), (464, 51487), (466, 51475), (493, 51349), (525, 51235),

Gene: Chelms_59 Start: 52169, Stop: 50760, Start Num: 142

Candidate Starts for Chelms_59:

(35, 52547), (44, 52496), (54, 52445), (69, 52391), (78, 52361), (Start: 87 @52328 has 1 MA's), (89, 52319), (Start: 99 @52292 has 23 MA's), (Start: 142 @52169 has 24 MA's), (153, 52124), (164, 52082), (176, 52034), (177, 52031), (179, 52025), (180, 52022), (184, 52010), (185, 52004), (200, 51956), (201, 51953), (236, 51833), (239, 51815), (254, 51752), (261, 51728), (264, 51713), (274, 51671), (282, 51620), (288, 51593), (304, 51542), (318, 51482), (319, 51479), (322, 51470), (325, 51452), (340, 51410), (360, 51365), (362, 51362), (403, 51230), (407, 51215), (412, 51194), (449, 51113), (450, 51110), (463, 51053), (464, 51047), (466, 51035), (478, 50984), (482, 50969), (483, 50960), (489, 50921), (493, 50909), (521, 50813), (525, 50798),

Gene: ChewChew_25 Start: 20575, Stop: 21969, Start Num: 122

Candidate Starts for ChewChew_25:

(Start: 122 @20575 has 69 MA's), (146, 20632), (181, 20737), (182, 20740), (212, 20824), (224, 20857), (238, 20908), (240, 20914), (258, 20995), (259, 20998), (261, 21004), (268, 21040), (273, 21058), (274, 21061), (277, 21094), (283, 21115), (320, 21247), (326, 21274), (342, 21313), (347, 21334), (351, 21340), (363, 21373), (367, 21388), (370, 21397), (377, 21442), (394, 21478), (408, 21520), (427, 21583), (432, 21601), (454, 21703), (455, 21706), (461, 21724), (462, 21727), (467, 21751), (468, 21760), (486, 21847), (511, 21937), (518, 21961),

Gene: Chivey_40 Start: 25169, Stop: 27076, Start Num: 18

Candidate Starts for Chivey_40:

(2, 24995), (Start: 18 @25169 has 24 MA's), (28, 25232), (31, 25253), (36, 25307), (67, 25442), (84, 25484), (100, 25529), (157, 25703), (160, 25712), (186, 25802), (197, 25844), (202, 25859), (245, 26045), (278, 26180), (281, 26192), (289, 26225), (321, 26354), (361, 26471), (450, 26744), (456, 26783), (469, 26843), (487, 26933), (495, 26963), (506, 27005), (523, 27056),

Gene: Cholula_29 Start: 22153, Stop: 23553, Start Num: 122

Candidate Starts for Cholula_29:

(Start: 122 @22153 has 69 MA's), (146, 22216), (181, 22321), (182, 22324), (212, 22408), (224, 22441), (238, 22492), (240, 22498), (258, 22579), (259, 22582), (261, 22588), (268, 22624), (273, 22642), (274, 22645), (283, 22699), (296, 22750), (320, 22831), (326, 22858), (339, 22888), (342, 22897), (351, 22924), (363, 22957), (367, 22972), (377, 23026), (387, 23047), (393, 23059), (398,

23071), (456, 23293), (459, 23302), (461, 23308), (468, 23344), (483, 23404), (486, 23431), (511, 23521),

Gene: Chridison_26 Start: 21746, Stop: 23140, Start Num: 122

Candidate Starts for Chridison_26:

(Start: 122 @21746 has 69 MA's), (146, 21803), (172, 21890), (181, 21908), (182, 21911), (212, 21995), (224, 22028), (238, 22079), (240, 22085), (251, 22145), (261, 22175), (268, 22211), (273, 22229), (283, 22286), (286, 22304), (288, 22310), (296, 22337), (320, 22418), (326, 22445), (335, 22469), (342, 22484), (351, 22511), (363, 22544), (367, 22559), (374, 22586), (418, 22727), (427, 22754), (429, 22766), (436, 22784), (446, 22826), (454, 22874), (456, 22880), (461, 22895), (462, 22898), (468, 22931), (483, 22991), (486, 23018), (502, 23075), (511, 23108), (518, 23132),

Gene: Christian_25 Start: 20576, Stop: 21970, Start Num: 122

Candidate Starts for Christian_25:

(Start: 122 @20576 has 69 MA's), (146, 20633), (181, 20738), (182, 20741), (212, 20825), (224, 20858), (240, 20915), (258, 20996), (259, 20999), (261, 21005), (268, 21041), (273, 21059), (274, 21062), (277, 21095), (283, 21116), (320, 21248), (326, 21275), (342, 21314), (347, 21335), (351, 21341), (363, 21374), (367, 21389), (370, 21398), (377, 21443), (394, 21479), (408, 21521), (427, 21584), (432, 21602), (454, 21704), (455, 21707), (461, 21725), (462, 21728), (467, 21752), (468, 21761), (486, 21848), (511, 21938), (518, 21962),

Gene: Cicada_35 Start: 23458, Stop: 24885, Start Num: 126

Candidate Starts for Cicada_35:

(Start: 126 @23458 has 11 MA's), (231, 23776), (239, 23815), (251, 23878), (264, 23923), (268, 23944), (288, 24043), (332, 24211), (351, 24259), (359, 24280), (367, 24307), (373, 24334), (377, 24364), (378, 24367), (380, 24370), (397, 24406), (420, 24484), (444, 24568), (449, 24586), (450, 24589), (468, 24676), (472, 24688), (482, 24727), (486, 24763), (489, 24769), (500, 24814), (507, 24844),

Gene: CoolCookie_45 Start: 25941, Stop: 27848, Start Num: 18

Candidate Starts for CoolCookie_45:

(Start: 18 @25941 has 24 MA's), (28, 26004), (31, 26025), (36, 26079), (84, 26256), (100, 26301), (157, 26475), (160, 26484), (186, 26574), (202, 26631), (245, 26817), (278, 26952), (281, 26964), (289, 26997), (321, 27126), (361, 27243), (404, 27318), (455, 27552), (456, 27555), (469, 27615), (487, 27705), (495, 27735), (506, 27777), (523, 27828),

Gene: Crestdrop_41 Start: 25203, Stop: 27110, Start Num: 18

Candidate Starts for Crestdrop_41:

(2, 25029), (Start: 18 @25203 has 24 MA's), (28, 25266), (31, 25287), (36, 25341), (67, 25476), (84, 25518), (100, 25563), (157, 25737), (160, 25746), (186, 25836), (197, 25878), (202, 25893), (245, 26079), (278, 26214), (281, 26226), (289, 26259), (321, 26388), (361, 26505), (450, 26778), (456, 26817), (469, 26877), (487, 26967), (495, 26997), (506, 27039), (523, 27090),

Gene: CristinaYang_25 Start: 20580, Stop: 21974, Start Num: 122

Candidate Starts for CristinaYang_25:

(Start: 122 @20580 has 69 MA's), (146, 20637), (181, 20742), (182, 20745), (212, 20829), (224, 20862), (238, 20913), (240, 20919), (258, 21000), (259, 21003), (261, 21009), (268, 21045), (273, 21063), (274, 21066), (277, 21099), (283, 21120), (320, 21252), (326, 21279), (342, 21318), (347, 21339), (351, 21345), (363, 21378), (367, 21393), (370, 21402), (377, 21447), (394, 21483), (408, 21525), (427, 21588), (432, 21606), (454, 21708), (455, 21711), (461, 21729), (462, 21732), (467, 21756), (468, 21765), (486, 21852), (511, 21942), (518, 21966),

Gene: Crosby_42 Start: 31144, Stop: 32538, Start Num: 128

Candidate Starts for Crosby_42:

(Start: 128 @31144 has 12 MA's), (Start: 129 @31147 has 2 MA's), (153, 31222), (161, 31246), (163, 31252), (173, 31276), (181, 31291), (182, 31294), (210, 31366), (218, 31381), (227, 31417), (251, 31516), (271, 31594), (297, 31717), (332, 31852), (344, 31879), (351, 31900), (374, 31978), (380, 32011), (383, 32020), (401, 32062), (419, 32128), (420, 32131), (427, 32152), (432, 32170), (437, 32188), (450, 32242), (454, 32272), (468, 32329), (469, 32332), (482, 32380), (488, 32419), (493, 32434), (509, 32503), (515, 32521), (518, 32530),

Gene: Cybele_40 Start: 25911, Stop: 27818, Start Num: 18

Candidate Starts for Cybele_40:

(Start: 18 @25911 has 24 MA's), (28, 25974), (31, 25995), (36, 26049), (84, 26226), (100, 26271), (157, 26445), (160, 26454), (186, 26544), (245, 26787), (278, 26922), (281, 26934), (289, 26967), (321, 27096), (361, 27213), (404, 27288), (455, 27522), (456, 27525), (469, 27585), (487, 27675), (495, 27705), (506, 27747), (523, 27798),

Gene: Daiboju_26 Start: 21732, Stop: 23129, Start Num: 122

Candidate Starts for Daiboju_26:

(Start: 122 @21732 has 69 MA's), (146, 21792), (172, 21879), (181, 21897), (182, 21900), (212, 21984), (214, 21990), (224, 22017), (238, 22068), (240, 22074), (247, 22125), (251, 22134), (258, 22155), (261, 22164), (268, 22200), (274, 22221), (277, 22254), (283, 22275), (286, 22293), (288, 22299), (296, 22326), (303, 22338), (307, 22353), (320, 22407), (335, 22458), (339, 22464), (342, 22473), (344, 22479), (351, 22500), (363, 22533), (367, 22548), (370, 22557), (408, 22680), (419, 22719), (427, 22743), (429, 22755), (454, 22863), (456, 22869), (459, 22878), (461, 22884), (468, 22920), (486, 23007), (511, 23097), (518, 23121),

Gene: Dakiti_60 Start: 53037, Stop: 51628, Start Num: 142

Candidate Starts for Dakiti_60:

(35, 53415), (44, 53364), (54, 53313), (69, 53259), (78, 53229), (Start: 87 @53196 has 1 MA's), (89, 53187), (Start: 99 @53160 has 23 MA's), (Start: 142 @53037 has 24 MA's), (153, 52992), (164, 52950), (176, 52902), (177, 52899), (179, 52893), (180, 52890), (184, 52878), (185, 52872), (200, 52824), (201, 52821), (236, 52701), (239, 52683), (254, 52620), (261, 52596), (264, 52581), (274, 52539), (282, 52488), (288, 52461), (304, 52410), (318, 52350), (319, 52347), (322, 52338), (325, 52320), (340, 52278), (360, 52233), (362, 52230), (403, 52098), (407, 52083), (412, 52062), (449, 51981), (450, 51978), (463, 51921), (464, 51915), (466, 51903), (478, 51852), (482, 51837), (483, 51828), (489, 51789), (493, 51777), (521, 51681), (525, 51666),

Gene: Damp_55 Start: 51773, Stop: 50361, Start Num: 142

Candidate Starts for Damp_55:

(35, 52121), (66, 51992), (86, 51905), (Start: 87 @51902 has 1 MA's), (Start: 142 @51773 has 24 MA's), (153, 51728), (176, 51638), (177, 51635), (179, 51629), (185, 51608), (208, 51545), (236, 51437), (239, 51419), (261, 51332), (264, 51317), (274, 51275), (289, 51194), (304, 51146), (314, 51104), (318, 51086), (319, 51083), (325, 51056), (343, 51005), (360, 50969), (373, 50918), (403, 50834), (408, 50813), (463, 50657), (464, 50651), (466, 50639), (493, 50513), (525, 50399),

Gene: DannyDe_40 Start: 25175, Stop: 27082, Start Num: 18

Candidate Starts for DannyDe_40:

(2, 25001), (Start: 18 @25175 has 24 MA's), (28, 25238), (36, 25313), (67, 25448), (84, 25490), (100, 25535), (157, 25709), (160, 25718), (186, 25808), (197, 25850), (202, 25865), (245, 26051), (278, 26186), (281, 26198), (289, 26231), (321, 26360), (361, 26477), (450, 26750), (456, 26789), (469, 26849), (487, 26939), (495, 26969), (506, 27011), (523, 27062),

Gene: Dauntless_40 Start: 25497, Stop: 27404, Start Num: 18

Candidate Starts for Dauntless_40:

(2, 25323), (Start: 18 @25497 has 24 MA's), (28, 25560), (31, 25581), (36, 25635), (67, 25770), (79, 25797), (84, 25812), (100, 25857), (157, 26031), (160, 26040), (186, 26130), (197, 26172), (202, 26187), (245, 26373), (278, 26508), (281, 26520), (289, 26553), (321, 26682), (347, 26769), (361, 26799), (450, 27072), (456, 27111), (469, 27171), (487, 27261), (495, 27291), (506, 27333), (523, 27384),

Gene: Demosthenes_55 Start: 52768, Stop: 51074, Start Num: 51

Candidate Starts for Demosthenes_55:

(Start: 48 @52780 has 6 MA's), (Start: 51 @52768 has 2 MA's), (73, 52669), (Start: 81 @52648 has 1 MA's), (105, 52582), (143, 52483), (153, 52447), (158, 52423), (162, 52414), (164, 52405), (176, 52357), (184, 52333), (196, 52291), (201, 52276), (208, 52261), (224, 52204), (225, 52201), (237, 52141), (238, 52138), (254, 52072), (256, 52069), (264, 52033), (265, 52030), (268, 52012), (270, 52003), (274, 51991), (281, 51943), (289, 51910), (294, 51886), (304, 51862), (310, 51838), (325, 51772), (360, 51673), (402, 51541), (403, 51538), (436, 51472), (449, 51421), (450, 51418), (463, 51361), (466, 51343), (489, 51226), (490, 51223), (494, 51211), (525, 51112), (531, 51091),

Gene: Diabla_63 Start: 53692, Stop: 52283, Start Num: 142

Candidate Starts for Diabla_63:

(35, 54070), (44, 54019), (69, 53914), (78, 53884), (Start: 87 @53851 has 1 MA's), (89, 53842), (Start: 99 @53815 has 23 MA's), (Start: 142 @53692 has 24 MA's), (153, 53647), (164, 53605), (176, 53557), (177, 53554), (179, 53548), (180, 53545), (185, 53527), (190, 53506), (200, 53479), (236, 53356), (239, 53338), (261, 53251), (264, 53236), (282, 53143), (304, 53065), (310, 53041), (318, 53005), (319, 53002), (325, 52975), (340, 52933), (360, 52888), (364, 52870), (382, 52804), (403, 52753), (407, 52738), (412, 52717), (444, 52660), (450, 52633), (463, 52576), (464, 52570), (466, 52558), (478, 52507), (483, 52483), (489, 52444), (493, 52432), (494, 52429), (521, 52336), (525, 52321), (531, 52300),

Gene: DocB7_048 Start: 43676, Stop: 42174, Start Num: 116

Candidate Starts for DocB7_048:

(Start: 116 @43676 has 3 MA's), (146, 43580), (153, 43553), (162, 43520), (168, 43496), (176, 43466), (199, 43391), (226, 43310), (228, 43295), (254, 43184), (260, 43163), (268, 43124), (300, 42986), (304, 42974), (305, 42971), (310, 42950), (328, 42872), (360, 42812), (402, 42677), (403, 42674), (421, 42623), (433, 42602), (439, 42575), (451, 42509), (459, 42482), (462, 42473), (466, 42452), (474, 42416), (483, 42377), (495, 42311), (527, 42215),

Gene: DrRobert_25 Start: 20576, Stop: 21970, Start Num: 122

Candidate Starts for DrRobert_25:

(Start: 122 @20576 has 69 MA's), (146, 20633), (181, 20738), (182, 20741), (212, 20825), (224, 20858), (238, 20909), (240, 20915), (258, 20996), (259, 20999), (261, 21005), (268, 21041), (273, 21059), (274, 21062), (277, 21095), (283, 21116), (320, 21248), (326, 21275), (342, 21314), (347, 21335), (351, 21341), (363, 21374), (367, 21389), (370, 21398), (377, 21443), (394, 21479), (408, 21521), (427, 21584), (432, 21602), (454, 21704), (455, 21707), (461, 21725), (462, 21728), (467, 21752), (468, 21761), (486, 21848), (511, 21938), (518, 21962),

Gene: DreamTeam_25 Start: 20615, Stop: 22009, Start Num: 122

Candidate Starts for DreamTeam_25:

(Start: 122 @20615 has 69 MA's), (146, 20672), (181, 20777), (182, 20780), (212, 20864), (224, 20897), (239, 20951), (240, 20954), (261, 21044), (268, 21080), (274, 21101), (277, 21134), (283, 21155), (320, 21287), (326, 21314), (342, 21353), (351, 21380), (363, 21413), (367, 21428), (370, 21437), (377, 21482), (394, 21518), (419, 21599), (427, 21623), (432, 21641), (436, 21653), (450, 21713), (452, 21737), (454, 21743), (455, 21746), (461, 21764), (462, 21767), (467, 21791), (468, 21800), (486, 21887), (500, 21938), (511, 21977),

Gene: Dryad_74 Start: 51068, Stop: 49182, Start Num: 13

Candidate Starts for Dryad_74:

(5, 51137), (7, 51128), (8, 51125), (Start: 13 @51068 has 8 MA's), (28, 50990), (30, 50981), (34, 50921), (37, 50900), (40, 50876), (Start: 56 @50813 has 2 MA's), (84, 50738), (91, 50714), (157, 50516), (160, 50507), (191, 50399), (235, 50243), (259, 50138), (270, 50087), (281, 50027), (303, 49940), (304, 49937), (315, 49883), (328, 49832), (330, 49823), (336, 49811), (347, 49778), (383, 49712), (397, 49685), (404, 49682), (432, 49583), (438, 49556), (456, 49466), (469, 49406), (472, 49397), (475, 49382), (486, 49322), (492, 49307), (501, 49268),

Gene: DunneganBoMo_94 Start: 76558, Stop: 78402, Start Num: 12

Candidate Starts for DunneganBoMo_94:

(Start: 12 @76558 has 1 MA's), (62, 76831), (113, 76939), (136, 77005), (154, 77074), (156, 77083), (198, 77158), (274, 77467), (280, 77512), (289, 77551), (293, 77572), (306, 77617), (319, 77674), (321, 77680), (328, 77713), (331, 77725), (337, 77737), (384, 77854), (388, 77860), (423, 77950), (431, 77983), (450, 78067), (470, 78160), (476, 78184), (514, 78352), (516, 78355),

Gene: Edmundo_94 Start: 55295, Stop: 56959, Start Num: 82

Candidate Starts for Edmundo_94:

(Start: 82 @55295 has 7 MA's), (102, 55358), (108, 55367), (137, 55454), (149, 55499), (187, 55619), (224, 55712), (229, 55736), (233, 55748), (242, 55802), (253, 55853), (262, 55889), (267, 55916), (272, 55937), (274, 55943), (279, 55985), (313, 56102), (331, 56180), (340, 56198), (357, 56249), (367, 56282), (375, 56315), (393, 56372), (402, 56399), (411, 56441), (432, 56522), (440, 56552), (444, 56570), (450, 56597), (453, 56624), (472, 56699), (479, 56726), (482, 56738), (495, 56807), (497, 56816), (498, 56819), (506, 56852), (519, 56888), (524, 56903), (529, 56918), (533, 56939),

Gene: Eggsie_58 Start: 51628, Stop: 50060, Start Num: 87

Candidate Starts for Eggsie_58:

(35, 51847), (54, 51745), (66, 51718), (69, 51691), (74, 51670), (78, 51661), (Start: 87 @51628 has 1 MA's), (89, 51619), (Start: 99 @51592 has 23 MA's), (Start: 142 @51469 has 24 MA's), (153, 51424), (164, 51382), (176, 51334), (177, 51331), (179, 51325), (180, 51322), (185, 51304), (190, 51283), (200, 51256), (236, 51133), (239, 51115), (261, 51028), (264, 51013), (282, 50920), (304, 50842), (310, 50818), (318, 50782), (319, 50779), (325, 50752), (340, 50710), (360, 50665), (364, 50647), (382, 50581), (403, 50530), (407, 50515), (412, 50494), (444, 50437), (450, 50410), (463, 50353), (464, 50347), (466, 50335), (478, 50284), (483, 50260), (489, 50221), (493, 50209), (494, 50206), (521, 50113), (525, 50098), (531, 50077),

Gene: Ekhein_59 Start: 51454, Stop: 49922, Start Num: 99

Candidate Starts for Ekhein_59:

(35, 51709), (44, 51658), (54, 51607), (69, 51553), (78, 51523), (Start: 87 @51490 has 1 MA's), (89, 51481), (Start: 99 @51454 has 23 MA's), (153, 51286), (164, 51244), (176, 51196), (180, 51184), (184, 51172), (185, 51166), (190, 51145), (200, 51118), (239, 50977), (261, 50890), (264, 50875), (266, 50863), (274, 50833), (282, 50782), (288, 50755), (304, 50704), (314, 50662), (318, 50644), (319, 50641), (325, 50614), (340, 50572), (360, 50527), (403, 50392), (407, 50377), (412, 50356), (444, 50299), (449, 50275), (450, 50272), (463, 50215), (464, 50209), (465, 50203), (466, 50197), (478, 50146), (483, 50122), (489, 50083), (493, 50071), (494, 50068), (521, 49975), (525, 49960), (531, 49939),

Gene: Erudite_39 Start: 25497, Stop: 27404, Start Num: 18

Candidate Starts for Erudite_39:

(2, 25323), (Start: 18 @25497 has 24 MA's), (28, 25560), (31, 25581), (36, 25635), (67, 25770), (79, 25797), (84, 25812), (100, 25857), (157, 26031), (160, 26040), (186, 26130), (197, 26172), (202, 26187), (245, 26373), (278, 26508), (281, 26520), (289, 26553), (321, 26682), (347, 26769), (361, 26799), (450, 27072), (456, 27111), (469, 27171), (487, 27261), (495, 27291), (506, 27333), (523,

27384),

Gene: EstebanJulior_26 Start: 21743, Stop: 23140, Start Num: 122

Candidate Starts for EstebanJulior_26:

(Start: 122 @21743 has 69 MA's), (146, 21803), (181, 21908), (182, 21911), (212, 21995), (224, 22028), (238, 22079), (240, 22085), (258, 22166), (261, 22175), (268, 22211), (273, 22229), (274, 22232), (277, 22265), (283, 22286), (320, 22418), (339, 22475), (342, 22484), (347, 22505), (351, 22511), (363, 22544), (367, 22559), (380, 22619), (394, 22649), (419, 22730), (432, 22772), (442, 22805), (452, 22868), (455, 22877), (459, 22889), (461, 22895), (465, 22910), (467, 22922), (468, 22931), (486, 23018), (502, 23075), (511, 23108),

Gene: Eunoia_26 Start: 21745, Stop: 23139, Start Num: 122

Candidate Starts for Eunoia_26:

(Start: 122 @21745 has 69 MA's), (146, 21802), (172, 21889), (181, 21907), (182, 21910), (212, 21994), (224, 22027), (238, 22078), (240, 22084), (251, 22144), (261, 22174), (268, 22210), (273, 22228), (283, 22285), (286, 22303), (288, 22309), (296, 22336), (320, 22417), (326, 22444), (335, 22468), (342, 22483), (351, 22510), (363, 22543), (367, 22558), (408, 22690), (418, 22726), (427, 22753), (429, 22765), (436, 22783), (454, 22873), (456, 22879), (461, 22894), (462, 22897), (468, 22930), (483, 22990), (486, 23017), (502, 23074), (511, 23107), (518, 23131),

Gene: Exiguo_58 Start: 51466, Stop: 49934, Start Num: 99

Candidate Starts for Exiguo_58:

(35, 51721), (44, 51670), (54, 51619), (69, 51565), (78, 51535), (Start: 87 @51502 has 1 MA's), (89, 51493), (Start: 99 @51466 has 23 MA's), (153, 51298), (164, 51256), (176, 51208), (180, 51196), (184, 51184), (185, 51178), (190, 51157), (200, 51130), (239, 50989), (261, 50902), (264, 50887), (266, 50875), (274, 50845), (282, 50794), (288, 50767), (304, 50716), (314, 50674), (318, 50656), (319, 50653), (325, 50626), (340, 50584), (360, 50539), (403, 50404), (407, 50389), (412, 50368), (444, 50311), (449, 50287), (450, 50284), (463, 50227), (464, 50221), (465, 50215), (466, 50209), (478, 50158), (483, 50134), (489, 50095), (493, 50083), (494, 50080), (521, 49987), (525, 49972), (531, 49951),

Gene: FelixAlejandro_64 Start: 54160, Stop: 52628, Start Num: 99

Candidate Starts for FelixAlejandro_64:

(35, 54415), (44, 54364), (69, 54259), (78, 54229), (Start: 87 @54196 has 1 MA's), (89, 54187), (Start: 99 @54160 has 23 MA's), (143, 54028), (153, 53992), (164, 53950), (169, 53932), (176, 53902), (180, 53890), (184, 53878), (185, 53872), (190, 53851), (239, 53683), (261, 53596), (264, 53581), (266, 53569), (274, 53539), (282, 53488), (304, 53410), (310, 53386), (314, 53368), (318, 53350), (319, 53347), (322, 53338), (325, 53320), (360, 53233), (403, 53098), (407, 53083), (412, 53062), (449, 52981), (450, 52978), (463, 52921), (464, 52915), (466, 52903), (478, 52852), (483, 52828), (489, 52789), (493, 52777), (494, 52774), (521, 52681), (525, 52666), (531, 52645),

Gene: FireCastle_33 Start: 23203, Stop: 24633, Start Num: 124

Candidate Starts for FireCastle_33:

(100, 23134), (Start: 124 @23203 has 1 MA's), (Start: 126 @23206 has 11 MA's), (231, 23524), (239, 23563), (242, 23584), (264, 23671), (268, 23692), (351, 24007), (359, 24028), (367, 24055), (373, 24082), (374, 24085), (377, 24112), (380, 24118), (397, 24154), (410, 24202), (420, 24232), (444, 24316), (450, 24337), (462, 24391), (466, 24409), (468, 24424), (472, 24436), (482, 24475), (486, 24511), (489, 24517), (493, 24529), (507, 24592), (520, 24628),

Gene: Flakey_58 Start: 52330, Stop: 50798, Start Num: 99

Candidate Starts for Flakey_58:

(35, 52585), (44, 52534), (54, 52483), (69, 52429), (78, 52399), (Start: 87 @52366 has 1 MA's), (89, 52357), (Start: 99 @52330 has 23 MA's), (153, 52162), (164, 52120), (176, 52072), (180, 52060),

(184, 52048), (185, 52042), (190, 52021), (200, 51994), (239, 51853), (261, 51766), (264, 51751), (266, 51739), (274, 51709), (282, 51658), (288, 51631), (304, 51580), (314, 51538), (318, 51520), (319, 51517), (325, 51490), (340, 51448), (360, 51403), (403, 51268), (407, 51253), (412, 51232), (444, 51175), (449, 51151), (450, 51148), (463, 51091), (464, 51085), (465, 51079), (466, 51073), (478, 51022), (483, 50998), (489, 50959), (493, 50947), (494, 50944), (521, 50851), (525, 50836), (531, 50815),

Gene: Fluke_29 Start: 22148, Stop: 23548, Start Num: 122

Candidate Starts for Fluke_29:

(Start: 122 @22148 has 69 MA's), (146, 22211), (181, 22316), (182, 22319), (212, 22403), (224, 22436), (238, 22487), (240, 22493), (258, 22574), (259, 22577), (261, 22583), (268, 22619), (273, 22637), (274, 22640), (277, 22673), (283, 22694), (286, 22712), (296, 22745), (320, 22826), (326, 22853), (339, 22883), (342, 22892), (351, 22919), (363, 22952), (367, 22967), (377, 23021), (387, 23042), (393, 23054), (398, 23066), (456, 23288), (459, 23297), (461, 23303), (468, 23339), (483, 23399), (486, 23426), (511, 23516),

Gene: Forza_170 Start: 96758, Stop: 94848, Start Num: 11

Candidate Starts for Forza_170:

(Start: 11 @96758 has 5 MA's), (49, 96554), (60, 96506), (72, 96461), (96, 96380), (104, 96368), (140, 96263), (147, 96236), (194, 96131), (203, 96107), (242, 95942), (304, 95675), (306, 95666), (312, 95639), (328, 95570), (413, 95321), (430, 95255), (436, 95231), (465, 95096), (479, 95036), (493, 94964),

Gene: FreddieHg_40 Start: 25185, Stop: 27092, Start Num: 18

Candidate Starts for FreddieHg_40:

(2, 25011), (Start: 18 @25185 has 24 MA's), (28, 25248), (31, 25269), (36, 25323), (67, 25458), (84, 25500), (100, 25545), (157, 25719), (160, 25728), (186, 25818), (197, 25860), (202, 25875), (245, 26061), (278, 26196), (281, 26208), (289, 26241), (321, 26370), (361, 26487), (450, 26760), (456, 26799), (469, 26859), (487, 26949), (495, 26979), (506, 27021), (523, 27072),

Gene: GMA2_64 Start: 67776, Stop: 65812, Start Num: 12

Candidate Starts for GMA2_64:

(Start: 12 @67776 has 1 MA's), (33, 67644), (96, 67386), (140, 67269), (Start: 142 @67263 has 24 MA's), (147, 67242), (157, 67197), (194, 67137), (203, 67113), (213, 67077), (230, 67011), (238, 66972), (247, 66918), (264, 66864), (303, 66684), (306, 66672), (328, 66576), (334, 66558), (351, 66504), (399, 66342), (436, 66198), (457, 66093), (470, 66036), (479, 66003), (510, 65859),

Gene: GMA3_58 Start: 50868, Stop: 49351, Start Num: 116

Candidate Starts for GMA3_58:

(41, 51117), (45, 51111), (63, 51039), (Start: 116 @50868 has 3 MA's), (146, 50772), (153, 50745), (158, 50727), (162, 50718), (170, 50691), (176, 50673), (185, 50643), (192, 50613), (199, 50592), (208, 50571), (228, 50493), (236, 50463), (238, 50448), (241, 50427), (265, 50334), (273, 50298), (282, 50244), (304, 50166), (319, 50103), (325, 50076), (329, 50061), (331, 50052), (363, 49989), (373, 49950), (394, 49890), (401, 49869), (402, 49866), (403, 49863), (414, 49815), (455, 49653), (466, 49611), (477, 49563), (489, 49497), (493, 49485),

Gene: GMA7_51 Start: 46927, Stop: 45296, Start Num: 56

Candidate Starts for GMA7_51:

(Start: 56 @46927 has 2 MA's), (61, 46915), (74, 46864), (76, 46858), (95, 46801), (153, 46660), (164, 46618), (167, 46606), (176, 46570), (177, 46567), (185, 46540), (196, 46504), (200, 46492), (208, 46477), (236, 46369), (261, 46264), (264, 46249), (289, 46126), (304, 46078), (310, 46054), (314, 46036), (325, 45988), (343, 45937), (360, 45901), (364, 45883), (403, 45766), (416, 45715), (444, 45673), (455, 45613), (466, 45571), (478, 45520), (483, 45496), (525, 45334), (531, 45313),

Gene: GTE7_50 Start: 46958, Stop: 45327, Start Num: 56

Candidate Starts for GTE7_50:

(Start: 56 @46958 has 2 MA's), (61, 46946), (74, 46895), (76, 46889), (95, 46832), (153, 46691), (164, 46649), (167, 46637), (176, 46601), (177, 46598), (185, 46571), (200, 46523), (208, 46508), (236, 46400), (261, 46295), (264, 46280), (289, 46157), (304, 46109), (310, 46085), (314, 46067), (325, 46019), (343, 45968), (360, 45932), (364, 45914), (403, 45797), (416, 45746), (444, 45704), (455, 45644), (466, 45602), (478, 45551), (483, 45527), (525, 45365), (531, 45344),

Gene: GalacticEye_57 Start: 52570, Stop: 51158, Start Num: 142

Candidate Starts for GalacticEye_57:

(35, 52918), (66, 52789), (86, 52702), (Start: 87 @52699 has 1 MA's), (Start: 142 @52570 has 24 MA's), (153, 52525), (176, 52435), (177, 52432), (179, 52426), (185, 52405), (208, 52342), (236, 52234), (239, 52216), (261, 52129), (264, 52114), (274, 52072), (289, 51991), (304, 51943), (314, 51901), (318, 51883), (319, 51880), (325, 51853), (343, 51802), (360, 51766), (373, 51715), (403, 51631), (408, 51610), (463, 51454), (464, 51448), (466, 51436), (493, 51310), (525, 51196),

Gene: Ghobes_35 Start: 32092, Stop: 30689, Start Num: 129

Candidate Starts for Ghobes_35:

(57, 32332), (59, 32329), (88, 32218), (Start: 129 @32092 has 2 MA's), (153, 32017), (161, 31993), (162, 31990), (173, 31960), (177, 31957), (217, 31846), (239, 31771), (240, 31768), (247, 31717), (248, 31714), (258, 31687), (264, 31663), (269, 31636), (297, 31510), (299, 31507), (332, 31384), (335, 31381), (345, 31351), (346, 31348), (372, 31264), (383, 31219), (418, 31117), (432, 31072), (441, 31042), (442, 31039), (462, 30946), (465, 30934), (489, 30820), (495, 30778),

Gene: Gibbles_56 Start: 50443, Stop: 48953, Start Num: 114

Candidate Starts for Gibbles_56:

(Start: 114 @50443 has 5 MA's), (143, 50350), (146, 50341), (151, 50329), (153, 50314), (158, 50296), (177, 50239), (194, 50167), (195, 50164), (222, 50071), (232, 50038), (237, 50005), (238, 50002), (241, 49981), (261, 49912), (268, 49876), (285, 49789), (299, 49738), (304, 49726), (305, 49723), (313, 49693), (329, 49621), (331, 49612), (380, 49489), (382, 49483), (450, 49309), (459, 49264), (466, 49234), (528, 48982),

Gene: Gibson_70 Start: 50318, Stop: 48432, Start Num: 13

Candidate Starts for Gibson_70:

(Start: 13 @50318 has 8 MA's), (17, 50303), (28, 50240), (30, 50231), (40, 50126), (52, 50087), (Start: 56 @50063 has 2 MA's), (84, 49988), (91, 49964), (148, 49805), (157, 49766), (160, 49757), (191, 49649), (223, 49541), (259, 49388), (270, 49337), (281, 49277), (303, 49190), (304, 49187), (328, 49082), (330, 49073), (336, 49061), (383, 48962), (430, 48845), (432, 48833), (438, 48806), (456, 48716), (461, 48701), (472, 48647), (484, 48590), (512, 48482), (517, 48464),

Gene: Gilda_40 Start: 25935, Stop: 27842, Start Num: 18

Candidate Starts for Gilda_40:

(Start: 18 @25935 has 24 MA's), (28, 25998), (31, 26019), (36, 26073), (84, 26250), (100, 26295), (157, 26469), (160, 26478), (186, 26568), (202, 26625), (245, 26811), (278, 26946), (281, 26958), (289, 26991), (321, 27120), (361, 27237), (404, 27312), (455, 27546), (456, 27549), (469, 27609), (487, 27699), (495, 27729), (506, 27771), (523, 27822),

Gene: Gisselle_25 Start: 20615, Stop: 22009, Start Num: 122

Candidate Starts for Gisselle_25:

(Start: 122 @20615 has 69 MA's), (146, 20672), (181, 20777), (182, 20780), (212, 20864), (224, 20897), (239, 20951), (240, 20954), (261, 21044), (268, 21080), (274, 21101), (277, 21134), (283, 21155), (320, 21287), (326, 21314), (342, 21353), (351, 21380), (363, 21413), (367, 21428), (370,

21437), (377, 21482), (394, 21518), (419, 21599), (427, 21623), (432, 21641), (436, 21653), (450, 21713), (452, 21737), (454, 21743), (455, 21746), (461, 21764), (462, 21767), (467, 21791), (468, 21800), (486, 21887), (500, 21938), (511, 21977),

Gene: Glenn_29 Start: 22157, Stop: 23557, Start Num: 122

Candidate Starts for Glenn_29:

(Start: 122 @22157 has 69 MA's), (146, 22220), (181, 22325), (182, 22328), (212, 22412), (224, 22445), (238, 22496), (240, 22502), (258, 22583), (259, 22586), (261, 22592), (268, 22628), (273, 22646), (274, 22649), (277, 22682), (283, 22703), (286, 22721), (296, 22754), (320, 22835), (326, 22862), (339, 22892), (342, 22901), (351, 22928), (363, 22961), (367, 22976), (377, 23030), (387, 23051), (393, 23063), (398, 23075), (456, 23297), (459, 23306), (461, 23312), (468, 23348), (483, 23408), (486, 23435), (511, 23525),

Gene: Gmala1_55 Start: 48612, Stop: 47071, Start Num: 111

Candidate Starts for Gmala1_55:

(111, 48612), (146, 48507), (153, 48480), (170, 48426), (176, 48408), (192, 48348), (193, 48339), (215, 48288), (221, 48264), (224, 48252), (226, 48246), (236, 48201), (238, 48186), (241, 48165), (242, 48162), (266, 48063), (273, 48036), (289, 47952), (294, 47928), (304, 47904), (313, 47871), (331, 47790), (358, 47742), (363, 47727), (392, 47634), (401, 47607), (402, 47604), (426, 47520), (436, 47484), (439, 47469), (449, 47424), (465, 47352), (466, 47346), (495, 47205), (528, 47106), (529, 47103),

Gene: GodonK_184 Start: 93693, Stop: 91774, Start Num: 14

Candidate Starts for GodonK_184:

(Start: 14 @93693 has 7 MA's), (23, 93651), (38, 93537), (53, 93462), (75, 93393), (96, 93324), (203, 93051), (211, 93033), (215, 93009), (226, 92970), (266, 92790), (283, 92706), (287, 92682), (303, 92622), (306, 92610), (312, 92583), (328, 92514), (329, 92511), (400, 92295), (405, 92277), (407, 92271), (422, 92205), (432, 92166), (436, 92154), (442, 92127), (458, 92046), (466, 92013), (470, 91992), (479, 91959), (486, 91908), (493, 91890),

Gene: Goodman_34 Start: 23371, Stop: 24798, Start Num: 126

Candidate Starts for Goodman_34:

(Start: 126 @23371 has 11 MA's), (201, 23587), (231, 23689), (239, 23728), (251, 23791), (264, 23836), (268, 23857), (288, 23956), (332, 24124), (351, 24172), (359, 24193), (367, 24220), (373, 24247), (377, 24277), (380, 24283), (397, 24319), (420, 24397), (444, 24481), (449, 24499), (450, 24502), (468, 24589), (472, 24601), (482, 24640), (486, 24676), (489, 24682), (502, 24733), (507, 24757),

Gene: GordDuk1_59 Start: 49176, Stop: 47635, Start Num: 111

Candidate Starts for GordDuk1_59:

(111, 49176), (146, 49071), (153, 49044), (170, 48990), (176, 48972), (192, 48912), (193, 48903), (215, 48852), (221, 48828), (224, 48816), (226, 48810), (236, 48765), (238, 48750), (241, 48729), (242, 48726), (266, 48627), (273, 48600), (289, 48516), (294, 48492), (304, 48468), (313, 48435), (314, 48426), (325, 48378), (331, 48354), (358, 48306), (392, 48198), (401, 48171), (426, 48084), (436, 48048), (439, 48033), (449, 47988), (465, 47916), (466, 47910), (528, 47670), (529, 47667),

Gene: GordTnk2_60 Start: 49330, Stop: 47789, Start Num: 111

Candidate Starts for GordTnk2_60:

(111, 49330), (146, 49225), (153, 49198), (170, 49144), (176, 49126), (192, 49066), (193, 49057), (215, 49006), (221, 48982), (224, 48970), (226, 48964), (236, 48919), (238, 48904), (241, 48883), (242, 48880), (266, 48781), (273, 48754), (289, 48670), (294, 48646), (304, 48622), (313, 48589), (331, 48508), (358, 48460), (392, 48352), (401, 48325), (402, 48322), (426, 48238), (436, 48202), (439, 48187), (449, 48142), (465, 48070), (466, 48064), (495, 47923), (528, 47824), (529, 47821),

Gene: Gorko_58 Start: 51458, Stop: 49926, Start Num: 99

Candidate Starts for Gorko_58:

(35, 51713), (44, 51662), (54, 51611), (69, 51557), (78, 51527), (Start: 87 @51494 has 1 MA's), (89, 51485), (Start: 99 @51458 has 23 MA's), (153, 51290), (164, 51248), (176, 51200), (180, 51188), (184, 51176), (185, 51170), (190, 51149), (200, 51122), (239, 50981), (261, 50894), (264, 50879), (266, 50867), (274, 50837), (282, 50786), (288, 50759), (304, 50708), (318, 50648), (319, 50645), (325, 50618), (340, 50576), (360, 50531), (403, 50396), (407, 50381), (412, 50360), (449, 50279), (450, 50276), (463, 50219), (464, 50213), (465, 50207), (466, 50201), (483, 50126), (489, 50087), (493, 50075), (494, 50072), (521, 49979), (525, 49964), (531, 49943),

Gene: GourdThymes_59 Start: 52332, Stop: 50800, Start Num: 99

Candidate Starts for GourdThymes_59:

(35, 52587), (44, 52536), (54, 52485), (69, 52431), (78, 52401), (Start: 87 @52368 has 1 MA's), (89, 52359), (Start: 99 @52332 has 23 MA's), (153, 52164), (164, 52122), (176, 52074), (180, 52062), (184, 52050), (185, 52044), (190, 52023), (200, 51996), (239, 51855), (261, 51768), (264, 51753), (266, 51741), (274, 51711), (282, 51660), (288, 51633), (304, 51582), (310, 51558), (314, 51540), (318, 51522), (319, 51519), (325, 51492), (340, 51450), (360, 51405), (403, 51270), (407, 51255), (412, 51234), (444, 51177), (449, 51153), (450, 51150), (463, 51093), (464, 51087), (465, 51081), (466, 51075), (478, 51024), (483, 51000), (489, 50961), (493, 50949), (494, 50946), (521, 50853), (525, 50838), (531, 50817),

Gene: GreenHearts_29 Start: 22236, Stop: 23627, Start Num: 122

Candidate Starts for GreenHearts_29:

(Start: 122 @22236 has 69 MA's), (155, 22323), (181, 22395), (182, 22398), (206, 22464), (212, 22482), (214, 22488), (224, 22515), (240, 22572), (247, 22623), (261, 22662), (268, 22698), (273, 22716), (277, 22752), (283, 22773), (286, 22791), (296, 22824), (311, 22863), (320, 22905), (326, 22932), (335, 22956), (347, 22992), (351, 22998), (363, 23031), (367, 23046), (370, 23055), (377, 23100), (393, 23133), (394, 23136), (420, 23220), (427, 23241), (429, 23253), (432, 23259), (436, 23271), (454, 23361), (455, 23364), (456, 23367), (461, 23382), (462, 23385), (467, 23409), (468, 23418), (486, 23505), (500, 23556), (511, 23595), (518, 23619),

Gene: Greenhouse_29 Start: 22160, Stop: 23551, Start Num: 122

Candidate Starts for Greenhouse_29:

(90, 22058), (107, 22100), (Start: 116 @22127 has 3 MA's), (Start: 122 @22160 has 69 MA's), (155, 22247), (181, 22319), (182, 22322), (206, 22388), (212, 22406), (214, 22412), (224, 22439), (240, 22496), (247, 22547), (249, 22553), (251, 22556), (261, 22586), (268, 22622), (273, 22640), (277, 22676), (283, 22697), (286, 22715), (311, 22787), (320, 22829), (326, 22856), (335, 22880), (347, 22916), (351, 22922), (363, 22955), (367, 22970), (370, 22979), (393, 23057), (394, 23060), (420, 23144), (427, 23165), (429, 23177), (432, 23183), (436, 23195), (454, 23285), (461, 23306), (462, 23309), (467, 23333), (468, 23342), (486, 23429), (500, 23480), (511, 23519), (518, 23543),

Gene: Guillaume_57 Start: 52620, Stop: 51208, Start Num: 142

Candidate Starts for Guillaume_57:

(35, 52968), (66, 52839), (Start: 87 @52749 has 1 MA's), (Start: 142 @52620 has 24 MA's), (153, 52575), (176, 52485), (177, 52482), (179, 52476), (185, 52455), (208, 52392), (236, 52284), (239, 52266), (261, 52179), (264, 52164), (274, 52122), (289, 52041), (304, 51993), (314, 51951), (318, 51933), (319, 51930), (325, 51903), (343, 51852), (360, 51816), (373, 51765), (403, 51681), (408, 51660), (463, 51504), (464, 51498), (466, 51486), (493, 51360), (525, 51246),

Gene: Hager_41 Start: 25422, Stop: 27329, Start Num: 18

Candidate Starts for Hager_41:

(2, 25248), (Start: 18 @25422 has 24 MA's), (28, 25485), (31, 25506), (36, 25560), (79, 25722), (84, 25737), (100, 25782), (157, 25956), (160, 25965), (186, 26055), (187, 26058), (197, 26097), (202, 26112), (209, 26130), (245, 26298), (271, 26391), (275, 26406), (278, 26433), (281, 26445), (289, 26478), (321, 26607), (361, 26724), (450, 26997), (456, 27036), (469, 27096), (487, 27186), (495, 27216), (506, 27258), (523, 27309),

Gene: Hail2Pitt_56 Start: 53096, Stop: 51684, Start Num: 142

Candidate Starts for Hail2Pitt_56:

(35, 53444), (66, 53315), (86, 53228), (Start: 87 @53225 has 1 MA's), (Start: 142 @53096 has 24 MA's), (153, 53051), (176, 52961), (177, 52958), (179, 52952), (185, 52931), (208, 52868), (236, 52760), (239, 52742), (261, 52655), (264, 52640), (274, 52598), (289, 52517), (304, 52469), (314, 52427), (318, 52409), (319, 52406), (325, 52379), (343, 52328), (360, 52292), (373, 52241), (403, 52157), (408, 52136), (463, 51980), (464, 51974), (466, 51962), (493, 51836), (525, 51722),

Gene: Harambe_57 Start: 52887, Stop: 51475, Start Num: 142

Candidate Starts for Harambe_57:

(35, 53235), (66, 53106), (86, 53019), (Start: 87 @53016 has 1 MA's), (Start: 142 @52887 has 24 MA's), (153, 52842), (176, 52752), (177, 52749), (179, 52743), (185, 52722), (208, 52659), (236, 52551), (239, 52533), (261, 52446), (264, 52431), (274, 52389), (289, 52308), (304, 52260), (314, 52218), (318, 52200), (319, 52197), (325, 52170), (343, 52119), (360, 52083), (373, 52032), (403, 51948), (408, 51927), (463, 51771), (464, 51765), (466, 51753), (493, 51627), (525, 51513),

Gene: Haunter_40 Start: 25327, Stop: 27234, Start Num: 18

Candidate Starts for Haunter_40:

(Start: 18 @25327 has 24 MA's), (28, 25390), (31, 25411), (36, 25465), (42, 25507), (84, 25642), (100, 25687), (157, 25861), (160, 25870), (186, 25960), (202, 26017), (245, 26203), (278, 26338), (281, 26350), (289, 26383), (302, 26428), (321, 26512), (361, 26629), (450, 26902), (455, 26938), (456, 26941), (469, 27001), (487, 27091), (495, 27121), (506, 27163), (523, 27214),

Gene: HayZem_63 Start: 52710, Stop: 51079, Start Num: 56

Candidate Starts for HayZem_63:

(Start: 56 @52710 has 2 MA's), (61, 52698), (74, 52647), (76, 52641), (95, 52584), (153, 52443), (164, 52401), (167, 52389), (176, 52353), (177, 52350), (185, 52323), (196, 52287), (200, 52275), (208, 52260), (236, 52152), (261, 52047), (264, 52032), (289, 51909), (304, 51861), (310, 51837), (314, 51819), (325, 51771), (343, 51720), (360, 51684), (364, 51666), (403, 51549), (416, 51498), (444, 51456), (455, 51396), (466, 51354), (478, 51303), (483, 51279), (525, 51117), (531, 51096),

Gene: Hello_57 Start: 52849, Stop: 51437, Start Num: 142

Candidate Starts for Hello_57:

(35, 53197), (66, 53068), (86, 52981), (Start: 87 @52978 has 1 MA's), (Start: 142 @52849 has 24 MA's), (153, 52804), (176, 52714), (177, 52711), (179, 52705), (185, 52684), (208, 52621), (236, 52513), (239, 52495), (261, 52408), (264, 52393), (274, 52351), (289, 52270), (304, 52222), (314, 52180), (318, 52162), (319, 52159), (325, 52132), (343, 52081), (360, 52045), (373, 51994), (403, 51910), (408, 51889), (463, 51733), (464, 51727), (466, 51715), (493, 51589), (525, 51475),

Gene: Henoccus_42 Start: 30892, Stop: 32286, Start Num: 128

Candidate Starts for Henoccus_42:

(Start: 128 @30892 has 12 MA's), (Start: 129 @30895 has 2 MA's), (153, 30970), (161, 30994), (173, 31024), (177, 31027), (181, 31039), (218, 31129), (226, 31153), (238, 31198), (240, 31204), (251, 31264), (258, 31285), (270, 31339), (291, 31438), (297, 31465), (301, 31474), (332, 31600), (351, 31648), (359, 31669), (363, 31681), (367, 31696), (374, 31726), (380, 31759), (383, 31768), (401, 31810), (419, 31876), (420, 31879), (427, 31900), (432, 31918), (437, 31936), (450, 31990), (454, 32020), (468, 32077), (469, 32080), (482, 32128), (493, 32182), (509, 32251), (515, 32269),

Gene: Herb_26 Start: 21732, Stop: 23129, Start Num: 122

Candidate Starts for Herb_26:

(Start: 122 @21732 has 69 MA's), (146, 21792), (172, 21879), (181, 21897), (182, 21900), (212, 21984), (214, 21990), (224, 22017), (238, 22068), (240, 22074), (247, 22125), (251, 22134), (258, 22155), (261, 22164), (268, 22200), (274, 22221), (277, 22254), (283, 22275), (286, 22293), (288, 22299), (296, 22326), (303, 22338), (307, 22353), (320, 22407), (335, 22458), (339, 22464), (342, 22473), (344, 22479), (351, 22500), (363, 22533), (367, 22548), (370, 22557), (408, 22680), (419, 22719), (427, 22743), (429, 22755), (454, 22863), (456, 22869), (459, 22878), (461, 22884), (468, 22920), (486, 23007), (511, 23097), (518, 23121),

Gene: Hiddenleaf_40 Start: 25169, Stop: 27076, Start Num: 18

Candidate Starts for Hiddenleaf_40:

(2, 24995), (Start: 18 @25169 has 24 MA's), (28, 25232), (31, 25253), (36, 25307), (67, 25442), (84, 25484), (100, 25529), (157, 25703), (160, 25712), (186, 25802), (197, 25844), (202, 25859), (245, 26045), (278, 26180), (281, 26192), (289, 26225), (321, 26354), (361, 26471), (450, 26744), (456, 26783), (469, 26843), (487, 26933), (495, 26963), (506, 27005), (523, 27056),

Gene: Hollow_57 Start: 53503, Stop: 51797, Start Num: 48

Candidate Starts for Hollow_57:

(Start: 48 @53503 has 6 MA's), (Start: 51 @53491 has 2 MA's), (73, 53392), (Start: 81 @53371 has 1 MA's), (105, 53305), (143, 53206), (153, 53170), (158, 53146), (162, 53137), (164, 53128), (176, 53080), (184, 53056), (196, 53014), (201, 52999), (208, 52984), (224, 52927), (225, 52924), (237, 52864), (238, 52861), (254, 52795), (256, 52792), (264, 52756), (265, 52753), (268, 52735), (270, 52726), (274, 52714), (281, 52666), (289, 52633), (294, 52609), (304, 52585), (310, 52561), (325, 52495), (360, 52396), (402, 52264), (403, 52261), (449, 52144), (450, 52141), (463, 52084), (466, 52066), (489, 51949), (490, 51946), (494, 51934), (525, 51835), (531, 51814),

Gene: Hotorobo_59 Start: 52337, Stop: 50805, Start Num: 99

Candidate Starts for Hotorobo_59:

(35, 52592), (44, 52541), (54, 52490), (69, 52436), (78, 52406), (Start: 87 @52373 has 1 MA's), (89, 52364), (Start: 99 @52337 has 23 MA's), (153, 52169), (164, 52127), (176, 52079), (180, 52067), (184, 52055), (185, 52049), (190, 52028), (200, 52001), (239, 51860), (261, 51773), (264, 51758), (266, 51746), (274, 51716), (282, 51665), (288, 51638), (304, 51587), (318, 51527), (319, 51524), (325, 51497), (340, 51455), (360, 51410), (403, 51275), (407, 51260), (412, 51239), (449, 51158), (450, 51155), (463, 51098), (464, 51092), (465, 51086), (466, 51080), (483, 51005), (489, 50966), (493, 50954), (494, 50951), (521, 50858), (525, 50843), (531, 50822),

Gene: Htur_33 Start: 23426, Stop: 24892, Start Num: 113

Candidate Starts for Htur_33:

(113, 23426), (118, 23447), (Start: 125 @23465 has 2 MA's), (239, 23822), (251, 23885), (264, 23930), (268, 23951), (332, 24218), (351, 24266), (359, 24287), (367, 24314), (373, 24341), (374, 24344), (377, 24371), (380, 24377), (397, 24413), (420, 24491), (427, 24512), (432, 24530), (436, 24542), (454, 24626), (468, 24683), (472, 24695), (482, 24734), (486, 24770), (489, 24776),

Gene: HunterDalle_26 Start: 21745, Stop: 23139, Start Num: 122

Candidate Starts for HunterDalle_26:

(Start: 122 @21745 has 69 MA's), (146, 21802), (172, 21889), (181, 21907), (182, 21910), (212, 21994), (224, 22027), (238, 22078), (240, 22084), (251, 22144), (261, 22174), (268, 22210), (273, 22228), (277, 22264), (283, 22285), (286, 22303), (288, 22309), (296, 22336), (320, 22417), (326, 22444), (335, 22468), (342, 22483), (351, 22510), (363, 22543), (367, 22558), (418, 22726), (427, 22753), (429, 22765), (436, 22783), (454, 22873), (456, 22879), (461, 22894), (462, 22897), (468, 22930), (483, 22990), (486, 23017), (502, 23074), (511, 23107), (518, 23131),

Gene: Huntingdon_29 Start: 22127, Stop: 23518, Start Num: 122

Candidate Starts for Huntingdon_29:

(Start: 122 @22127 has 69 MA's), (155, 22214), (181, 22286), (182, 22289), (206, 22355), (212, 22373), (214, 22379), (224, 22406), (240, 22463), (258, 22544), (261, 22553), (268, 22589), (273, 22607), (277, 22643), (283, 22664), (286, 22682), (296, 22715), (311, 22754), (320, 22796), (326, 22823), (335, 22847), (347, 22883), (351, 22889), (363, 22922), (367, 22937), (370, 22946), (377, 22991), (393, 23024), (394, 23027), (419, 23108), (429, 23144), (432, 23150), (436, 23162), (454, 23252), (461, 23273), (462, 23276), (467, 23300), (468, 23309), (486, 23396), (500, 23447), (511, 23486), (518, 23510),

Gene: Intolerant_41 Start: 31037, Stop: 32431, Start Num: 128

Candidate Starts for Intolerant_41:

(Start: 128 @31037 has 12 MA's), (Start: 129 @31040 has 2 MA's), (153, 31115), (161, 31139), (173, 31169), (181, 31184), (218, 31274), (227, 31310), (251, 31409), (254, 31418), (271, 31487), (297, 31610), (332, 31745), (344, 31772), (351, 31793), (359, 31814), (374, 31871), (380, 31904), (383, 31913), (401, 31955), (419, 32021), (427, 32045), (432, 32063), (437, 32081), (450, 32135), (454, 32165), (468, 32222), (469, 32225), (482, 32273), (488, 32312), (493, 32327), (509, 32396), (515, 32414), (518, 32423),

Gene: JDawG_39 Start: 25586, Stop: 27493, Start Num: 18

Candidate Starts for JDawG_39:

(2, 25412), (Start: 18 @25586 has 24 MA's), (28, 25649), (31, 25670), (36, 25724), (67, 25859), (84, 25901), (100, 25946), (157, 26120), (160, 26129), (186, 26219), (197, 26261), (202, 26276), (245, 26462), (278, 26597), (281, 26609), (289, 26642), (312, 26735), (321, 26771), (349, 26861), (361, 26888), (455, 27197), (456, 27200), (469, 27260), (487, 27350), (495, 27380), (506, 27422), (523, 27473),

Gene: JackieB_42 Start: 30731, Stop: 32125, Start Num: 128

Candidate Starts for JackieB_42:

(Start: 128 @30731 has 12 MA's), (Start: 129 @30734 has 2 MA's), (153, 30809), (161, 30833), (173, 30863), (177, 30866), (181, 30878), (218, 30968), (226, 30992), (238, 31037), (240, 31043), (251, 31103), (258, 31124), (270, 31178), (291, 31277), (297, 31304), (301, 31313), (332, 31439), (351, 31487), (359, 31508), (363, 31520), (367, 31535), (374, 31565), (380, 31598), (383, 31607), (401, 31649), (420, 31718), (427, 31739), (432, 31757), (437, 31775), (450, 31829), (454, 31859), (468, 31916), (469, 31919), (482, 31967), (493, 32021), (509, 32090), (515, 32108),

Gene: Jams_57 Start: 52059, Stop: 50647, Start Num: 142

Candidate Starts for Jams_57:

(35, 52407), (66, 52278), (Start: 87 @52188 has 1 MA's), (Start: 142 @52059 has 24 MA's), (153, 52014), (176, 51924), (177, 51921), (179, 51915), (185, 51894), (208, 51831), (228, 51753), (236, 51723), (239, 51705), (261, 51618), (264, 51603), (274, 51561), (289, 51480), (304, 51432), (314, 51390), (318, 51372), (319, 51369), (325, 51342), (343, 51291), (360, 51255), (373, 51204), (403, 51120), (408, 51099), (463, 50943), (464, 50937), (466, 50925), (493, 50799), (525, 50685),

Gene: Jellybones_61 Start: 53432, Stop: 51900, Start Num: 99

Candidate Starts for Jellybones_61:

(35, 53687), (44, 53636), (66, 53558), (69, 53531), (78, 53501), (Start: 87 @53468 has 1 MA's), (89, 53459), (Start: 99 @53432 has 23 MA's), (143, 53300), (153, 53264), (164, 53222), (169, 53204), (176, 53174), (180, 53162), (185, 53144), (200, 53096), (261, 52868), (264, 52853), (266, 52841), (274, 52811), (282, 52760), (304, 52682), (310, 52658), (314, 52640), (318, 52622), (319, 52619), (322, 52610), (325, 52592), (340, 52550), (360, 52505), (364, 52487), (403, 52370), (407, 52355), (412, 52334), (444, 52277), (449, 52253), (450, 52250), (463, 52193), (464, 52187), (466, 52175),

(478, 52124), (483, 52100), (489, 52061), (493, 52049), (494, 52046), (521, 51953), (525, 51938), (531, 51917),

Gene: Jera_34 Start: 22504, Stop: 23931, Start Num: 126

Candidate Starts for Jera_34:

(113, 22462), (Start: 126 @22504 has 11 MA's), (231, 22822), (264, 22969), (268, 22990), (270, 22999), (332, 23257), (351, 23305), (359, 23326), (374, 23383), (380, 23416), (397, 23452), (420, 23530), (427, 23551), (449, 23632), (450, 23635), (468, 23722), (472, 23734), (482, 23773), (486, 23809), (489, 23815), (493, 23827), (507, 23890),

Gene: JingleBells_40 Start: 25290, Stop: 27197, Start Num: 18

Candidate Starts for JingleBells_40:

(2, 25116), (Start: 18 @25290 has 24 MA's), (28, 25353), (31, 25374), (36, 25428), (50, 25491), (67, 25563), (84, 25605), (100, 25650), (157, 25824), (160, 25833), (186, 25923), (197, 25965), (202, 25980), (245, 26166), (278, 26301), (281, 26313), (289, 26346), (321, 26475), (361, 26592), (455, 26901), (456, 26904), (469, 26964), (487, 27054), (495, 27084), (506, 27126), (523, 27177),

Gene: Joann_29 Start: 22094, Stop: 23485, Start Num: 122

Candidate Starts for Joann_29:

(Start: 122 @22094 has 69 MA's), (155, 22181), (181, 22253), (182, 22256), (206, 22322), (212, 22340), (224, 22373), (240, 22430), (247, 22481), (249, 22487), (251, 22490), (261, 22520), (268, 22556), (273, 22574), (277, 22610), (283, 22631), (286, 22649), (296, 22682), (311, 22721), (320, 22763), (326, 22790), (335, 22814), (347, 22850), (351, 22856), (363, 22889), (367, 22904), (370, 22913), (377, 22958), (387, 22979), (393, 22991), (419, 23075), (427, 23099), (429, 23111), (432, 23117), (436, 23129), (454, 23219), (456, 23225), (461, 23240), (462, 23243), (467, 23267), (468, 23276), (486, 23363), (511, 23453), (518, 23477),

Gene: Johann_34 Start: 23371, Stop: 24798, Start Num: 126

Candidate Starts for Johann_34:

(Start: 126 @23371 has 11 MA's), (201, 23587), (231, 23689), (239, 23728), (251, 23791), (264, 23836), (268, 23857), (288, 23956), (332, 24124), (351, 24172), (359, 24193), (367, 24220), (373, 24247), (377, 24277), (380, 24283), (397, 24319), (420, 24397), (444, 24481), (449, 24499), (450, 24502), (468, 24589), (472, 24601), (482, 24640), (486, 24676), (489, 24682), (502, 24733), (507, 24757),

Gene: John316_62 Start: 53495, Stop: 51963, Start Num: 99

Candidate Starts for John316_62:

(35, 53750), (44, 53699), (54, 53648), (69, 53594), (78, 53564), (Start: 87 @53531 has 1 MA's), (89, 53522), (Start: 99 @53495 has 23 MA's), (153, 53327), (164, 53285), (176, 53237), (180, 53225), (184, 53213), (185, 53207), (190, 53186), (200, 53159), (261, 52931), (264, 52916), (266, 52904), (274, 52874), (282, 52823), (288, 52796), (304, 52745), (314, 52703), (318, 52685), (319, 52682), (325, 52655), (340, 52613), (360, 52568), (403, 52433), (407, 52418), (412, 52397), (449, 52316), (450, 52313), (463, 52256), (464, 52250), (465, 52244), (466, 52238), (483, 52163), (489, 52124), (493, 52112), (494, 52109), (521, 52016), (525, 52001), (531, 51980),

Gene: Jormungandr_57 Start: 52602, Stop: 51190, Start Num: 142

Candidate Starts for Jormungandr_57:

(35, 52950), (66, 52821), (Start: 87 @52731 has 1 MA's), (Start: 142 @52602 has 24 MA's), (153, 52557), (176, 52467), (177, 52464), (179, 52458), (185, 52437), (208, 52374), (236, 52266), (239, 52248), (261, 52161), (264, 52146), (274, 52104), (289, 52023), (304, 51975), (314, 51933), (318, 51915), (319, 51912), (325, 51885), (343, 51834), (360, 51798), (373, 51747), (403, 51663), (408, 51642), (463, 51486), (464, 51480), (466, 51468), (493, 51342), (525, 51228),

Gene: Jumbo_57 Start: 53259, Stop: 51742, Start Num: 116

Candidate Starts for Jumbo_57:

(Start: 116 @53259 has 3 MA's), (146, 53163), (151, 53151), (153, 53136), (192, 53004), (200, 52980), (201, 52977), (214, 52944), (238, 52839), (241, 52818), (260, 52746), (273, 52689), (292, 52587), (304, 52557), (321, 52488), (358, 52395), (363, 52380), (372, 52344), (380, 52311), (394, 52281), (401, 52260), (412, 52218), (414, 52206), (441, 52131), (466, 52014), (473, 51981), (483, 51939), (495, 51873), (528, 51774), (529, 51771),

Gene: Jumboset_29 Start: 22100, Stop: 23500, Start Num: 122

Candidate Starts for Jumboset_29:

(Start: 122 @22100 has 69 MA's), (146, 22163), (181, 22268), (182, 22271), (212, 22355), (224, 22388), (238, 22439), (240, 22445), (258, 22526), (259, 22529), (261, 22535), (268, 22571), (273, 22589), (274, 22592), (283, 22646), (296, 22697), (320, 22778), (326, 22805), (339, 22835), (342, 22844), (351, 22871), (363, 22904), (367, 22919), (377, 22973), (387, 22994), (393, 23006), (398, 23018), (456, 23240), (459, 23249), (461, 23255), (468, 23291), (483, 23351), (486, 23378), (511, 23468),

Gene: Kalizoi_30 Start: 22267, Stop: 23499, Start Num: 181

Candidate Starts for Kalizoi_30:

(Start: 122 @22099 has 69 MA's), (146, 22162), (181, 22267), (182, 22270), (212, 22354), (224, 22387), (238, 22438), (240, 22444), (258, 22525), (259, 22528), (261, 22534), (268, 22570), (273, 22588), (274, 22591), (283, 22645), (296, 22696), (320, 22777), (326, 22804), (339, 22834), (342, 22843), (351, 22870), (363, 22903), (367, 22918), (377, 22972), (387, 22993), (393, 23005), (398, 23017), (456, 23239), (459, 23248), (461, 23254), (468, 23290), (483, 23350), (486, 23377), (511, 23467), (518, 23491), (520, 23494),

Gene: Kampe_58 Start: 50421, Stop: 48931, Start Num: 114

Candidate Starts for Kampe_58:

(Start: 114 @50421 has 5 MA's), (143, 50328), (146, 50319), (151, 50307), (153, 50292), (158, 50274), (177, 50217), (194, 50145), (195, 50142), (222, 50049), (232, 50016), (237, 49983), (238, 49980), (241, 49959), (261, 49890), (268, 49854), (285, 49767), (304, 49704), (305, 49701), (313, 49671), (329, 49599), (331, 49590), (380, 49467), (382, 49461), (441, 49329), (450, 49287), (459, 49242), (466, 49212), (528, 48960),

Gene: Karate_39 Start: 25940, Stop: 27847, Start Num: 18

Candidate Starts for Karate_39:

(2, 25766), (Start: 18 @25940 has 24 MA's), (28, 26003), (31, 26024), (36, 26078), (79, 26240), (84, 26255), (100, 26300), (157, 26474), (160, 26483), (186, 26573), (187, 26576), (202, 26630), (245, 26816), (278, 26951), (281, 26963), (321, 27125), (361, 27242), (456, 27554), (469, 27614), (487, 27704), (495, 27734), (506, 27776), (523, 27827),

Gene: Kaseim_57 Start: 52137, Stop: 50632, Start Num: 97

Candidate Starts for Kaseim_57:

(35, 52392), (66, 52263), (Start: 87 @52173 has 1 MA's), (Start: 97 @52137 has 1 MA's), (Start: 142 @52044 has 24 MA's), (153, 51999), (176, 51909), (177, 51906), (179, 51900), (185, 51879), (208, 51816), (236, 51708), (239, 51690), (261, 51603), (264, 51588), (274, 51546), (289, 51465), (304, 51417), (314, 51375), (318, 51357), (319, 51354), (325, 51327), (343, 51276), (360, 51240), (373, 51189), (403, 51105), (408, 51084), (463, 50928), (464, 50922), (466, 50910), (493, 50784), (525, 50670),

Gene: Kate_41 Start: 25943, Stop: 27850, Start Num: 18

Candidate Starts for Kate_41:

(Start: 18 @25943 has 24 MA's), (28, 26006), (31, 26027), (36, 26081), (84, 26258), (100, 26303), (157, 26477), (160, 26486), (186, 26576), (202, 26633), (245, 26819), (278, 26954), (281, 26966), (289, 26999), (321, 27128), (361, 27245), (404, 27320), (455, 27554), (456, 27557), (469, 27617), (487, 27707), (495, 27737), (506, 27779), (523, 27830),

Gene: Katyusha_57 Start: 53319, Stop: 51616, Start Num: 48

Candidate Starts for Katyusha_57:

(Start: 48 @53319 has 6 MA's), (Start: 51 @53307 has 2 MA's), (105, 53124), (Start: 142 @53034 has 24 MA's), (143, 53025), (153, 52989), (158, 52965), (162, 52956), (164, 52947), (176, 52899), (184, 52875), (208, 52803), (210, 52800), (215, 52782), (225, 52743), (254, 52614), (264, 52575), (265, 52572), (268, 52554), (270, 52545), (274, 52533), (281, 52485), (289, 52452), (304, 52404), (310, 52380), (325, 52314), (360, 52215), (390, 52116), (394, 52107), (402, 52083), (403, 52080), (444, 51987), (449, 51963), (450, 51960), (463, 51903), (466, 51885), (489, 51768), (490, 51765), (494, 51753), (525, 51654), (531, 51633),

Gene: Kharcho_61 Start: 33998, Stop: 35899, Start Num: 32

Candidate Starts for Kharcho_61:

(22, 33905), (Start: 32 @33998 has 2 MA's), (47, 34085), (59, 34139), (71, 34190), (86, 34238), (92, 34262), (137, 34388), (139, 34397), (201, 34583), (218, 34625), (248, 34772), (256, 34793), (268, 34850), (274, 34874), (279, 34916), (288, 34952), (324, 35090), (357, 35192), (394, 35318), (402, 35342), (411, 35384), (479, 35669), (492, 35732), (498, 35762), (523, 35843), (528, 35858),

Gene: KingBob_26 Start: 21732, Stop: 23129, Start Num: 122

Candidate Starts for KingBob_26:

(Start: 122 @21732 has 69 MA's), (146, 21792), (172, 21879), (181, 21897), (182, 21900), (212, 21984), (214, 21990), (224, 22017), (238, 22068), (240, 22074), (247, 22125), (251, 22134), (258, 22155), (261, 22164), (268, 22200), (274, 22221), (277, 22254), (283, 22275), (286, 22293), (288, 22299), (296, 22326), (303, 22338), (307, 22353), (320, 22407), (335, 22458), (339, 22464), (342, 22473), (344, 22479), (351, 22500), (363, 22533), (367, 22548), (370, 22557), (408, 22680), (419, 22719), (427, 22743), (429, 22755), (454, 22863), (456, 22869), (459, 22878), (461, 22884), (468, 22920), (486, 23007), (511, 23097), (518, 23121),

Gene: Kittykat_25 Start: 20600, Stop: 21994, Start Num: 122

Candidate Starts for Kittykat_25:

(Start: 122 @20600 has 69 MA's), (146, 20657), (181, 20762), (182, 20765), (212, 20849), (224, 20882), (239, 20936), (240, 20939), (261, 21029), (268, 21065), (274, 21086), (277, 21119), (283, 21140), (320, 21272), (326, 21299), (342, 21338), (351, 21365), (363, 21398), (367, 21413), (370, 21422), (377, 21467), (394, 21503), (419, 21584), (427, 21608), (432, 21626), (436, 21638), (450, 21698), (452, 21722), (454, 21728), (455, 21731), (461, 21749), (462, 21752), (467, 21776), (468, 21785), (486, 21872), (500, 21923), (511, 21962),

Gene: Korra_30 Start: 22105, Stop: 23505, Start Num: 122

Candidate Starts for Korra_30:

(Start: 122 @22105 has 69 MA's), (146, 22168), (181, 22273), (182, 22276), (212, 22360), (224, 22393), (238, 22444), (240, 22450), (258, 22531), (259, 22534), (261, 22540), (268, 22576), (273, 22594), (274, 22597), (277, 22630), (283, 22651), (296, 22702), (320, 22783), (326, 22810), (339, 22840), (342, 22849), (351, 22876), (363, 22909), (367, 22924), (377, 22978), (387, 22999), (393, 23011), (398, 23023), (432, 23137), (456, 23245), (459, 23254), (461, 23260), (468, 23296), (483, 23356), (486, 23383), (511, 23473),

Gene: Kors_43 Start: 26688, Stop: 28622, Start Num: 19

Candidate Starts for Kors_43:

(1, 26448), (Start: 4 @26592 has 1 MA's), (17, 26682), (Start: 19 @26688 has 2 MA's), (36, 26835), (38, 26853), (39, 26862), (84, 27012), (127, 27138), (157, 27228), (160, 27237), (183, 27312), (186, 27327), (197, 27369), (207, 27399), (238, 27531), (281, 27717), (285, 27735), (289, 27750), (304, 27807), (317, 27867), (338, 27939), (392, 28077), (415, 28143), (423, 28173), (443, 28251), (456, 28329), (469, 28389), (487, 28479), (494, 28497), (524, 28605),

Gene: Kovu_97 Start: 56142, Stop: 57803, Start Num: 82

Candidate Starts for Kovu_97:

(Start: 51 @56019 has 2 MA's), (58, 56058), (Start: 82 @56142 has 7 MA's), (102, 56202), (130, 56289), (133, 56292), (187, 56463), (190, 56475), (233, 56595), (240, 56631), (243, 56655), (248, 56688), (253, 56700), (262, 56736), (263, 56742), (274, 56790), (279, 56832), (313, 56952), (327, 57015), (340, 57048), (348, 57078), (357, 57099), (367, 57132), (375, 57165), (393, 57222), (402, 57249), (411, 57291), (428, 57348), (432, 57372), (440, 57402), (444, 57420), (450, 57447), (453, 57474), (472, 57549), (479, 57576), (486, 57624), (491, 57636), (495, 57657), (497, 57666), (498, 57669), (504, 57696), (506, 57702), (514, 57729), (524, 57756), (528, 57768), (529, 57771), (530, 57777),

Gene: Krampus_40 Start: 25943, Stop: 27850, Start Num: 18

Candidate Starts for Krampus_40:

(2, 25769), (Start: 18 @25943 has 24 MA's), (28, 26006), (31, 26027), (36, 26081), (79, 26243), (84, 26258), (100, 26303), (157, 26477), (160, 26486), (186, 26576), (197, 26618), (202, 26633), (245, 26819), (278, 26954), (281, 26966), (289, 26999), (321, 27128), (361, 27245), (404, 27320), (455, 27554), (456, 27557), (469, 27617), (487, 27707), (495, 27737), (506, 27779), (523, 27830),

Gene: Kvothe_56 Start: 53206, Stop: 51515, Start Num: 51

Candidate Starts for Kvothe_56:

(Start: 48 @53218 has 6 MA's), (Start: 51 @53206 has 2 MA's), (105, 53023), (Start: 142 @52933 has 24 MA's), (143, 52924), (153, 52888), (158, 52864), (162, 52855), (164, 52846), (176, 52798), (184, 52774), (208, 52702), (215, 52681), (224, 52645), (225, 52642), (254, 52513), (256, 52510), (264, 52474), (265, 52471), (268, 52453), (270, 52444), (274, 52432), (281, 52384), (289, 52351), (304, 52303), (310, 52279), (325, 52213), (360, 52114), (390, 52015), (394, 52006), (402, 51982), (403, 51979), (444, 51886), (449, 51862), (450, 51859), (463, 51802), (466, 51784), (489, 51667), (490, 51664), (494, 51652), (525, 51553), (531, 51532),

Gene: Lahirium_57 Start: 53124, Stop: 51712, Start Num: 142

Candidate Starts for Lahirium_57:

(35, 53472), (66, 53343), (Start: 87 @53253 has 1 MA's), (Start: 142 @53124 has 24 MA's), (153, 53079), (176, 52989), (177, 52986), (179, 52980), (185, 52959), (208, 52896), (236, 52788), (239, 52770), (261, 52683), (264, 52668), (274, 52626), (289, 52545), (304, 52497), (314, 52455), (318, 52437), (319, 52434), (325, 52407), (343, 52356), (360, 52320), (373, 52269), (403, 52185), (408, 52164), (463, 52008), (464, 52002), (466, 51990), (493, 51864), (525, 51750),

Gene: Lakshmi_29 Start: 22120, Stop: 23511, Start Num: 122

Candidate Starts for Lakshmi_29:

(Start: 122 @22120 has 69 MA's), (155, 22207), (181, 22279), (182, 22282), (204, 22345), (206, 22348), (212, 22366), (214, 22372), (224, 22399), (240, 22456), (247, 22507), (249, 22513), (251, 22516), (261, 22546), (268, 22582), (273, 22600), (277, 22636), (283, 22657), (286, 22675), (296, 22708), (311, 22747), (320, 22789), (326, 22816), (335, 22840), (347, 22876), (351, 22882), (363, 22915), (367, 22930), (370, 22939), (377, 22984), (393, 23017), (394, 23020), (420, 23104), (427, 23125), (429, 23137), (436, 23155), (454, 23245), (461, 23266), (462, 23269), (467, 23293), (468, 23302), (486, 23389), (500, 23440), (511, 23479), (518, 23503),

Gene: Laroye_95 Start: 55108, Stop: 56772, Start Num: 82

Candidate Starts for Laroye_95:

(Start: 82 @55108 has 7 MA's), (102, 55171), (120, 55231), (137, 55267), (149, 55312), (187, 55432), (224, 55525), (229, 55549), (233, 55561), (242, 55615), (253, 55666), (262, 55702), (267, 55729), (274, 55756), (279, 55798), (313, 55915), (331, 55993), (340, 56011), (357, 56062), (367, 56095), (375, 56128), (393, 56185), (402, 56212), (411, 56254), (428, 56311), (432, 56335), (440, 56365), (444, 56383), (450, 56410), (472, 56512), (479, 56539), (482, 56551), (495, 56620), (497, 56629), (498, 56632), (504, 56659), (506, 56665), (519, 56701), (524, 56716), (529, 56731), (533, 56752),

Gene: LazerLemon_42 Start: 31529, Stop: 32923, Start Num: 128

Candidate Starts for LazerLemon_42:

(98, 31445), (Start: 128 @31529 has 12 MA's), (Start: 142 @31562 has 24 MA's), (153, 31607), (161, 31631), (173, 31661), (177, 31664), (181, 31676), (218, 31766), (226, 31790), (251, 31901), (270, 31976), (277, 32021), (290, 32072), (291, 32075), (295, 32096), (332, 32237), (344, 32264), (351, 32285), (359, 32306), (374, 32363), (377, 32390), (380, 32396), (383, 32405), (401, 32447), (419, 32513), (420, 32516), (427, 32537), (432, 32555), (437, 32573), (450, 32627), (468, 32714), (469, 32717), (482, 32765), (488, 32804), (493, 32819), (509, 32888), (515, 32906), (518, 32915),

Gene: LiSara_92 Start: 55240, Stop: 56904, Start Num: 82

Candidate Starts for LiSara_92:

(Start: 82 @55240 has 7 MA's), (102, 55303), (120, 55363), (137, 55399), (149, 55444), (187, 55564), (224, 55657), (229, 55681), (233, 55693), (242, 55747), (253, 55798), (262, 55834), (267, 55861), (274, 55888), (279, 55930), (313, 56047), (331, 56125), (340, 56143), (357, 56194), (367, 56227), (375, 56260), (393, 56317), (402, 56344), (411, 56386), (428, 56443), (432, 56467), (440, 56497), (444, 56515), (450, 56542), (472, 56644), (479, 56671), (482, 56683), (495, 56752), (497, 56761), (504, 56791), (506, 56797), (519, 56833), (524, 56848), (529, 56863), (533, 56884),

Gene: Lidong_57 Start: 52859, Stop: 51447, Start Num: 142

Candidate Starts for Lidong_57:

(35, 53207), (66, 53078), (Start: 87 @52988 has 1 MA's), (Start: 142 @52859 has 24 MA's), (153, 52814), (176, 52724), (177, 52721), (179, 52715), (185, 52694), (208, 52631), (228, 52553), (236, 52523), (239, 52505), (261, 52418), (264, 52403), (274, 52361), (289, 52280), (304, 52232), (314, 52190), (318, 52172), (319, 52169), (325, 52142), (343, 52091), (360, 52055), (373, 52004), (403, 51920), (408, 51899), (463, 51743), (464, 51737), (466, 51725), (493, 51599), (525, 51485),

Gene: LilStuart_25 Start: 20568, Stop: 21962, Start Num: 122

Candidate Starts for LilStuart_25:

(Start: 122 @20568 has 69 MA's), (146, 20625), (181, 20730), (182, 20733), (212, 20817), (224, 20850), (238, 20901), (240, 20907), (258, 20988), (259, 20991), (261, 20997), (268, 21033), (273, 21051), (274, 21054), (277, 21087), (283, 21108), (320, 21240), (326, 21267), (342, 21306), (347, 21327), (351, 21333), (363, 21366), (367, 21381), (370, 21390), (377, 21435), (394, 21471), (408, 21513), (427, 21576), (432, 21594), (454, 21696), (455, 21699), (461, 21717), (462, 21720), (467, 21744), (468, 21753), (486, 21840), (511, 21930), (518, 21954), (520, 21957),

Gene: Linetti_59 Start: 53022, Stop: 51613, Start Num: 142

Candidate Starts for Linetti_59:

(35, 53400), (44, 53349), (54, 53298), (69, 53244), (78, 53214), (Start: 87 @53181 has 1 MA's), (89, 53172), (Start: 99 @53145 has 23 MA's), (Start: 142 @53022 has 24 MA's), (153, 52977), (164, 52935), (176, 52887), (177, 52884), (179, 52878), (180, 52875), (184, 52863), (185, 52857), (196, 52821), (200, 52809), (201, 52806), (236, 52686), (239, 52668), (254, 52605), (261, 52581), (264, 52566), (274, 52524), (288, 52446), (304, 52395), (318, 52335), (319, 52332), (322, 52323), (325, 52305), (340, 52263), (360, 52218), (403, 52083), (407, 52068), (412, 52047), (449, 51966), (450, 51963), (463, 51906), (464, 51900), (466, 51888), (478, 51837), (482, 51822), (483, 51813), (489, 51774), (493, 51762), (521, 51666), (525, 51651),

Gene: Litotes_29 Start: 22115, Stop: 23509, Start Num: 122

Candidate Starts for Litotes_29:

(Start: 122 @22115 has 69 MA's), (146, 22172), (181, 22277), (212, 22364), (239, 22451), (240, 22454), (261, 22544), (268, 22580), (270, 22589), (273, 22598), (283, 22655), (286, 22673), (296, 22706), (303, 22718), (320, 22787), (326, 22814), (335, 22838), (351, 22880), (363, 22913), (367, 22928), (370, 22937), (398, 23027), (418, 23096), (427, 23123), (432, 23141), (436, 23153), (454, 23243), (456, 23249), (459, 23258), (461, 23264), (468, 23300), (486, 23387), (500, 23438), (502, 23444), (511, 23477), (518, 23501),

Gene: Lizz_70 Start: 50158, Stop: 48272, Start Num: 13

Candidate Starts for Lizz_70:

(7, 50218), (Start: 13 @50158 has 8 MA's), (17, 50143), (28, 50080), (30, 50071), (31, 50059), (40, 49966), (Start: 56 @49903 has 2 MA's), (64, 49885), (84, 49828), (91, 49804), (148, 49645), (157, 49606), (160, 49597), (191, 49489), (223, 49381), (244, 49276), (270, 49177), (281, 49117), (303, 49030), (304, 49027), (328, 48922), (330, 48913), (336, 48901), (383, 48802), (430, 48685), (432, 48673), (438, 48646), (456, 48556), (461, 48541), (472, 48487), (484, 48430), (517, 48304),

Gene: Lizzo_59 Start: 52326, Stop: 50794, Start Num: 99

Candidate Starts for Lizzo_59:

(35, 52581), (44, 52530), (54, 52479), (69, 52425), (78, 52395), (Start: 87 @52362 has 1 MA's), (89, 52353), (Start: 99 @52326 has 23 MA's), (153, 52158), (164, 52116), (176, 52068), (180, 52056), (184, 52044), (185, 52038), (190, 52017), (200, 51990), (239, 51849), (261, 51762), (264, 51747), (266, 51735), (274, 51705), (282, 51654), (288, 51627), (304, 51576), (310, 51552), (314, 51534), (318, 51516), (319, 51513), (325, 51486), (340, 51444), (360, 51399), (403, 51264), (407, 51249), (412, 51228), (444, 51171), (449, 51147), (463, 51087), (464, 51081), (465, 51075), (466, 51069), (478, 51018), (483, 50994), (489, 50955), (493, 50943), (494, 50940), (521, 50847), (525, 50832), (531, 50811),

Gene: Lucy_25 Start: 20556, Stop: 21950, Start Num: 122

Candidate Starts for Lucy_25:

(Start: 122 @20556 has 69 MA's), (146, 20613), (181, 20718), (182, 20721), (212, 20805), (224, 20838), (240, 20895), (258, 20976), (259, 20979), (261, 20985), (268, 21021), (273, 21039), (274, 21042), (277, 21075), (283, 21096), (296, 21147), (320, 21228), (326, 21255), (342, 21294), (347, 21315), (351, 21321), (363, 21354), (367, 21369), (374, 21396), (377, 21423), (394, 21459), (427, 21564), (432, 21582), (454, 21684), (455, 21687), (461, 21705), (462, 21708), (467, 21732), (468, 21741), (486, 21828), (500, 21879), (501, 21882), (511, 21918), (518, 21942),

Gene: Luker_58 Start: 53170, Stop: 51665, Start Num: 97

Candidate Starts for Luker_58:

(35, 53425), (66, 53296), (Start: 87 @53206 has 1 MA's), (Start: 97 @53170 has 1 MA's), (Start: 142 @53077 has 24 MA's), (153, 53032), (176, 52942), (177, 52939), (179, 52933), (185, 52912), (208, 52849), (236, 52741), (239, 52723), (261, 52636), (264, 52621), (274, 52579), (289, 52498), (304, 52450), (314, 52408), (318, 52390), (319, 52387), (325, 52360), (343, 52309), (360, 52273), (373, 52222), (403, 52138), (408, 52117), (463, 51961), (464, 51955), (466, 51943), (493, 51817), (525, 51703),

Gene: Makoto_25 Start: 20576, Stop: 21970, Start Num: 122

Candidate Starts for Makoto_25:

(Start: 122 @20576 has 69 MA's), (146, 20633), (181, 20738), (212, 20825), (224, 20858), (240, 20915), (247, 20966), (258, 20996), (259, 20999), (261, 21005), (268, 21041), (273, 21059), (274, 21062), (277, 21095), (283, 21116), (320, 21248), (326, 21275), (342, 21314), (347, 21335), (351, 21341), (363, 21374), (367, 21389), (370, 21398), (377, 21443), (394, 21479), (408, 21521), (427,

21584), (432, 21602), (454, 21704), (455, 21707), (461, 21725), (462, 21728), (467, 21752), (468, 21761), (486, 21848), (511, 21938), (518, 21962),

Gene: MamaPearl_26 Start: 21743, Stop: 23140, Start Num: 122

Candidate Starts for MamaPearl_26:

(Start: 122 @21743 has 69 MA's), (146, 21803), (181, 21908), (182, 21911), (212, 21995), (224, 22028), (238, 22079), (240, 22085), (258, 22166), (261, 22175), (268, 22211), (273, 22229), (274, 22232), (277, 22265), (283, 22286), (320, 22418), (339, 22475), (342, 22484), (347, 22505), (351, 22511), (363, 22544), (367, 22559), (380, 22619), (394, 22649), (419, 22730), (432, 22772), (442, 22805), (452, 22868), (455, 22877), (459, 22889), (461, 22895), (465, 22910), (467, 22922), (468, 22931), (486, 23018), (502, 23075), (511, 23108),

Gene: Mareelih_167 Start: 96276, Stop: 94366, Start Num: 11

Candidate Starts for Mareelih_167:

(Start: 11 @96276 has 5 MA's), (49, 96072), (60, 96024), (72, 95979), (96, 95898), (104, 95886), (140, 95781), (147, 95754), (194, 95649), (203, 95625), (242, 95460), (304, 95193), (306, 95184), (312, 95157), (328, 95088), (413, 94839), (430, 94773), (436, 94749), (465, 94614), (479, 94554), (493, 94482),

Gene: Maria1952_26 Start: 21732, Stop: 23129, Start Num: 122

Candidate Starts for Maria1952_26:

(Start: 122 @21732 has 69 MA's), (146, 21792), (172, 21879), (181, 21897), (182, 21900), (212, 21984), (214, 21990), (224, 22017), (238, 22068), (240, 22074), (247, 22125), (251, 22134), (258, 22155), (261, 22164), (268, 22200), (274, 22221), (277, 22254), (283, 22275), (286, 22293), (288, 22299), (296, 22326), (303, 22338), (307, 22353), (320, 22407), (335, 22458), (339, 22464), (342, 22473), (344, 22479), (351, 22500), (363, 22533), (367, 22548), (370, 22557), (408, 22680), (419, 22719), (427, 22743), (429, 22755), (454, 22863), (456, 22869), (459, 22878), (461, 22884), (468, 22920), (486, 23007), (511, 23097), (518, 23121),

Gene: Marky_44 Start: 31624, Stop: 33015, Start Num: 129

Candidate Starts for Marky_44:

(119, 31615), (Start: 129 @31624 has 2 MA's), (131, 31630), (153, 31699), (161, 31723), (181, 31768), (219, 31861), (238, 31927), (264, 32038), (270, 32068), (271, 32071), (297, 32194), (332, 32329), (344, 32356), (351, 32377), (359, 32398), (363, 32410), (401, 32539), (420, 32608), (427, 32629), (432, 32647), (437, 32665), (450, 32719), (454, 32749), (468, 32806), (469, 32809), (482, 32857), (495, 32926), (509, 32980), (515, 32998),

Gene: Mbo2_52 Start: 42925, Stop: 41438, Start Num: 116

Candidate Starts for Mbo2_52:

(83, 43012), (Start: 116 @42925 has 3 MA's), (143, 42838), (153, 42802), (158, 42784), (164, 42769), (168, 42754), (171, 42742), (176, 42730), (178, 42724), (189, 42682), (228, 42559), (256, 42445), (273, 42370), (282, 42316), (303, 42241), (304, 42238), (310, 42214), (319, 42175), (328, 42136), (350, 42094), (408, 41911), (434, 41851), (439, 41833), (449, 41788), (450, 41785), (459, 41737), (462, 41728), (466, 41707), (469, 41689), (475, 41665), (482, 41641), (489, 41599), (495, 41572), (498, 41560), (505, 41530), (510, 41515), (528, 41473),

Gene: MeganNoll_29 Start: 22157, Stop: 23557, Start Num: 122

Candidate Starts for MeganNoll_29:

(Start: 122 @22157 has 69 MA's), (146, 22220), (181, 22325), (182, 22328), (212, 22412), (224, 22445), (238, 22496), (240, 22502), (258, 22583), (259, 22586), (261, 22592), (268, 22628), (273, 22646), (274, 22649), (283, 22703), (296, 22754), (320, 22835), (326, 22862), (339, 22892), (342, 22901), (351, 22928), (363, 22961), (367, 22976), (377, 23030), (387, 23051), (393, 23063), (398, 23075), (456, 23297), (459, 23306), (461, 23312), (468, 23348), (483, 23408), (486, 23435), (511,

23525),

Gene: Microdon_41 Start: 30843, Stop: 32237, Start Num: 128

Candidate Starts for Microdon_41:

(Start: 128 @30843 has 12 MA's), (Start: 129 @30846 has 2 MA's), (153, 30921), (161, 30945), (163, 30951), (173, 30975), (181, 30990), (182, 30993), (210, 31065), (218, 31080), (227, 31116), (251, 31215), (297, 31416), (332, 31551), (344, 31578), (351, 31599), (374, 31677), (380, 31710), (383, 31719), (401, 31761), (419, 31827), (420, 31830), (427, 31851), (432, 31869), (437, 31887), (450, 31941), (454, 31971), (468, 32028), (469, 32031), (482, 32079), (488, 32118), (493, 32133), (509, 32202), (515, 32220), (518, 32229),

Gene: Milani_33 Start: 22173, Stop: 23600, Start Num: 126

Candidate Starts for Milani_33:

(Start: 126 @22173 has 11 MA's), (238, 22527), (239, 22530), (242, 22551), (264, 22638), (351, 22974), (359, 22995), (367, 23022), (373, 23049), (374, 23052), (380, 23085), (397, 23121), (419, 23196), (427, 23220), (444, 23283), (450, 23304), (462, 23358), (468, 23391), (472, 23403), (482, 23442), (486, 23478), (489, 23484), (493, 23496), (495, 23511), (507, 23559), (511, 23568), (518, 23592),

Gene: Mimi_107 Start: 80085, Stop: 81923, Start Num: 12

Candidate Starts for Mimi_107:

(Start: 12 @80085 has 1 MA's), (27, 80166), (38, 80244), (62, 80340), (94, 80400), (109, 80430), (147, 80550), (159, 80601), (196, 80661), (276, 81000), (289, 81057), (293, 81078), (306, 81123), (319, 81180), (321, 81186), (328, 81219), (331, 81231), (337, 81243), (353, 81288), (365, 81327), (395, 81384), (405, 81390), (413, 81423), (431, 81492), (450, 81576), (476, 81693), (517, 81867), (530, 81909),

Gene: Minos_58 Start: 52601, Stop: 51189, Start Num: 142

Candidate Starts for Minos_58:

(35, 52949), (66, 52820), (86, 52733), (Start: 87 @52730 has 1 MA's), (Start: 142 @52601 has 24 MA's), (153, 52556), (176, 52466), (177, 52463), (179, 52457), (185, 52436), (208, 52373), (236, 52265), (239, 52247), (261, 52160), (264, 52145), (274, 52103), (289, 52022), (304, 51974), (314, 51932), (318, 51914), (319, 51911), (325, 51884), (343, 51833), (360, 51797), (373, 51746), (403, 51662), (408, 51641), (463, 51485), (464, 51479), (466, 51467), (493, 51341), (525, 51227),

Gene: Misaeng_29 Start: 22230, Stop: 23621, Start Num: 122

Candidate Starts for Misaeng_29:

(Start: 122 @22230 has 69 MA's), (155, 22317), (181, 22389), (182, 22392), (206, 22458), (212, 22476), (224, 22509), (240, 22566), (258, 22647), (261, 22656), (268, 22692), (273, 22710), (277, 22746), (283, 22767), (286, 22785), (296, 22818), (320, 22899), (326, 22926), (335, 22950), (347, 22986), (351, 22992), (363, 23025), (367, 23040), (370, 23049), (377, 23094), (393, 23127), (394, 23130), (420, 23214), (429, 23247), (432, 23253), (436, 23265), (454, 23355), (456, 23361), (461, 23376), (462, 23379), (465, 23391), (467, 23403), (468, 23412), (486, 23499), (511, 23589),

Gene: Moki_25 Start: 20566, Stop: 21960, Start Num: 122

Candidate Starts for Moki_25:

(Start: 122 @20566 has 69 MA's), (146, 20623), (181, 20728), (212, 20815), (224, 20848), (239, 20902), (240, 20905), (261, 20995), (268, 21031), (273, 21049), (274, 21052), (283, 21106), (320, 21238), (326, 21265), (339, 21295), (342, 21304), (351, 21331), (363, 21364), (367, 21379), (374, 21406), (377, 21433), (394, 21469), (408, 21511), (427, 21574), (432, 21592), (450, 21664), (452, 21688), (454, 21694), (455, 21697), (461, 21715), (462, 21718), (467, 21742), (468, 21751), (486, 21838), (500, 21889), (511, 21928),

Gene: Monty_58 Start: 51476, Stop: 49944, Start Num: 99

Candidate Starts for Monty_58:

(35, 51731), (44, 51680), (54, 51629), (69, 51575), (78, 51545), (Start: 87 @51512 has 1 MA's), (89, 51503), (Start: 99 @51476 has 23 MA's), (153, 51308), (164, 51266), (176, 51218), (180, 51206), (184, 51194), (185, 51188), (190, 51167), (200, 51140), (239, 50999), (261, 50912), (264, 50897), (266, 50885), (274, 50855), (282, 50804), (288, 50777), (304, 50726), (318, 50666), (319, 50663), (325, 50636), (340, 50594), (360, 50549), (403, 50414), (407, 50399), (412, 50378), (449, 50297), (450, 50294), (463, 50237), (464, 50231), (465, 50225), (466, 50219), (483, 50144), (489, 50105), (493, 50093), (494, 50090), (521, 49997), (525, 49982), (531, 49961),

Gene: MortySmith_38 Start: 24974, Stop: 26881, Start Num: 18

Candidate Starts for MortySmith_38:

(2, 24800), (Start: 18 @24974 has 24 MA's), (28, 25037), (31, 25058), (36, 25112), (67, 25247), (84, 25289), (100, 25334), (157, 25508), (160, 25517), (186, 25607), (197, 25649), (202, 25664), (245, 25850), (278, 25985), (281, 25997), (289, 26030), (321, 26159), (361, 26276), (455, 26585), (456, 26588), (469, 26648), (487, 26738), (495, 26768), (506, 26810), (523, 26861),

Gene: MrWormie_57 Start: 51762, Stop: 50350, Start Num: 142

Candidate Starts for MrWormie_57:

(35, 52110), (66, 51981), (Start: 87 @51891 has 1 MA's), (Start: 142 @51762 has 24 MA's), (153, 51717), (176, 51627), (177, 51624), (179, 51618), (185, 51597), (208, 51534), (236, 51426), (239, 51408), (261, 51321), (264, 51306), (274, 51264), (289, 51183), (304, 51135), (314, 51093), (318, 51075), (319, 51072), (325, 51045), (343, 50994), (360, 50958), (373, 50907), (403, 50823), (408, 50802), (463, 50646), (464, 50640), (466, 50628), (493, 50502), (525, 50388),

Gene: Msay19_64 Start: 54046, Stop: 52514, Start Num: 99

Candidate Starts for Msay19_64:

(35, 54301), (44, 54250), (69, 54145), (78, 54115), (Start: 87 @54082 has 1 MA's), (89, 54073), (Start: 99 @54046 has 23 MA's), (153, 53878), (164, 53836), (169, 53818), (176, 53788), (180, 53776), (184, 53764), (185, 53758), (190, 53737), (239, 53569), (261, 53482), (264, 53467), (266, 53455), (274, 53425), (282, 53374), (304, 53296), (310, 53272), (314, 53254), (318, 53236), (319, 53233), (322, 53224), (325, 53206), (340, 53164), (360, 53119), (364, 53101), (403, 52984), (407, 52969), (412, 52948), (449, 52867), (450, 52864), (463, 52807), (464, 52801), (466, 52789), (483, 52714), (489, 52675), (493, 52663), (494, 52660), (521, 52567), (525, 52552),

Gene: Nancia_25 Start: 20580, Stop: 21974, Start Num: 122

Candidate Starts for Nancia_25:

(Start: 122 @20580 has 69 MA's), (146, 20637), (181, 20742), (182, 20745), (212, 20829), (224, 20862), (238, 20913), (240, 20919), (258, 21000), (259, 21003), (261, 21009), (268, 21045), (273, 21063), (274, 21066), (277, 21099), (283, 21120), (320, 21252), (326, 21279), (342, 21318), (347, 21339), (351, 21345), (363, 21378), (367, 21393), (370, 21402), (377, 21447), (394, 21483), (408, 21525), (427, 21588), (432, 21606), (454, 21708), (455, 21711), (461, 21729), (462, 21732), (467, 21756), (468, 21765), (486, 21852), (511, 21942), (518, 21966),

Gene: NarutoRun_40 Start: 25911, Stop: 27818, Start Num: 18

Candidate Starts for NarutoRun_40:

(Start: 18 @25911 has 24 MA's), (28, 25974), (31, 25995), (36, 26049), (84, 26226), (100, 26271), (157, 26445), (160, 26454), (186, 26544), (202, 26601), (245, 26787), (278, 26922), (281, 26934), (289, 26967), (321, 27096), (361, 27213), (404, 27288), (455, 27522), (456, 27525), (469, 27585), (487, 27675), (495, 27705), (506, 27747), (523, 27798),

Gene: Neoevie_57 Start: 52863, Stop: 51451, Start Num: 142

Candidate Starts for Neoevie_57:

(35, 53211), (66, 53082), (86, 52995), (Start: 87 @52992 has 1 MA's), (Start: 142 @52863 has 24 MA's), (153, 52818), (176, 52728), (177, 52725), (179, 52719), (185, 52698), (208, 52635), (236, 52527), (239, 52509), (261, 52422), (264, 52407), (274, 52365), (289, 52284), (304, 52236), (314, 52194), (318, 52176), (319, 52173), (325, 52146), (343, 52095), (360, 52059), (373, 52008), (403, 51924), (408, 51903), (463, 51747), (464, 51741), (466, 51729), (493, 51603), (525, 51489),

Gene: Neptune_40 Start: 25911, Stop: 27818, Start Num: 18

Candidate Starts for Neptune_40:

(Start: 18 @25911 has 24 MA's), (28, 25974), (31, 25995), (36, 26049), (84, 26226), (100, 26271), (157, 26445), (160, 26454), (186, 26544), (245, 26787), (278, 26922), (281, 26934), (289, 26967), (321, 27096), (361, 27213), (404, 27288), (455, 27522), (456, 27525), (469, 27585), (487, 27675), (495, 27705), (506, 27747), (523, 27798),

Gene: Newt_58 Start: 53091, Stop: 51679, Start Num: 142

Candidate Starts for Newt_58:

(35, 53439), (66, 53310), (86, 53223), (Start: 87 @53220 has 1 MA's), (Start: 142 @53091 has 24 MA's), (153, 53046), (176, 52956), (177, 52953), (179, 52947), (185, 52926), (208, 52863), (236, 52755), (239, 52737), (261, 52650), (264, 52635), (274, 52593), (289, 52512), (304, 52464), (314, 52422), (318, 52404), (319, 52401), (325, 52374), (343, 52323), (360, 52287), (373, 52236), (403, 52152), (408, 52131), (463, 51975), (464, 51969), (466, 51957), (493, 51831), (525, 51717),

Gene: Niagara_57 Start: 53309, Stop: 51606, Start Num: 48

Candidate Starts for Niagara_57:

(Start: 48 @53309 has 6 MA's), (Start: 51 @53297 has 2 MA's), (105, 53114), (Start: 142 @53024 has 24 MA's), (143, 53015), (153, 52979), (158, 52955), (162, 52946), (164, 52937), (176, 52889), (184, 52865), (208, 52793), (215, 52772), (224, 52736), (225, 52733), (254, 52604), (256, 52601), (264, 52565), (265, 52562), (268, 52544), (270, 52535), (274, 52523), (281, 52475), (289, 52442), (304, 52394), (310, 52370), (325, 52304), (360, 52205), (390, 52106), (394, 52097), (402, 52073), (403, 52070), (444, 51977), (449, 51953), (450, 51950), (463, 51893), (466, 51875), (489, 51758), (490, 51755), (494, 51743), (525, 51644), (531, 51623),

Gene: Nimi13_57 Start: 52610, Stop: 51198, Start Num: 142

Candidate Starts for Nimi13_57:

(35, 52958), (66, 52829), (Start: 87 @52739 has 1 MA's), (Start: 142 @52610 has 24 MA's), (153, 52565), (176, 52475), (177, 52472), (179, 52466), (185, 52445), (208, 52382), (236, 52274), (239, 52256), (261, 52169), (264, 52154), (274, 52112), (289, 52031), (304, 51983), (314, 51941), (318, 51923), (319, 51920), (325, 51893), (343, 51842), (360, 51806), (373, 51755), (403, 51671), (408, 51650), (463, 51494), (464, 51488), (466, 51476), (493, 51350), (525, 51236),

Gene: Nubia_29 Start: 22080, Stop: 23471, Start Num: 122

Candidate Starts for Nubia_29:

(Start: 122 @22080 has 69 MA's), (155, 22167), (181, 22239), (182, 22242), (206, 22308), (212, 22326), (214, 22332), (224, 22359), (240, 22416), (247, 22467), (261, 22506), (268, 22542), (273, 22560), (277, 22596), (283, 22617), (286, 22635), (296, 22668), (311, 22707), (320, 22749), (326, 22776), (335, 22800), (347, 22836), (351, 22842), (363, 22875), (367, 22890), (370, 22899), (377, 22944), (393, 22977), (394, 22980), (427, 23085), (429, 23097), (436, 23115), (454, 23205), (461, 23226), (462, 23229), (467, 23253), (468, 23262), (486, 23349), (500, 23400), (511, 23439), (518, 23463),

Gene: OMalley_26 Start: 21745, Stop: 23139, Start Num: 122

Candidate Starts for OMalley_26:

(Start: 122 @21745 has 69 MA's), (146, 21802), (172, 21889), (181, 21907), (182, 21910), (212, 21994), (224, 22027), (238, 22078), (240, 22084), (251, 22144), (261, 22174), (268, 22210), (273,

22228), (283, 22285), (286, 22303), (288, 22309), (296, 22336), (320, 22417), (326, 22444), (335, 22468), (342, 22483), (351, 22510), (363, 22543), (367, 22558), (408, 22690), (418, 22726), (427, 22753), (429, 22765), (436, 22783), (454, 22873), (456, 22879), (461, 22894), (462, 22897), (468, 22930), (483, 22990), (486, 23017), (502, 23074), (511, 23107), (518, 23131),

Gene: Orchid_57 Start: 50422, Stop: 48932, Start Num: 114

Candidate Starts for Orchid_57:

(Start: 114 @50422 has 5 MA's), (143, 50329), (146, 50320), (151, 50308), (153, 50293), (158, 50275), (177, 50218), (194, 50146), (195, 50143), (222, 50050), (232, 50017), (237, 49984), (238, 49981), (241, 49960), (261, 49891), (268, 49855), (285, 49768), (304, 49705), (305, 49702), (313, 49672), (329, 49600), (331, 49591), (380, 49468), (382, 49462), (441, 49330), (450, 49288), (459, 49243), (466, 49213), (528, 48961),

Gene: Ottawa_61 Start: 33948, Stop: 35849, Start Num: 32

Candidate Starts for Ottawa_61:

(22, 33855), (Start: 32 @33948 has 2 MA's), (47, 34035), (59, 34089), (71, 34140), (86, 34188), (92, 34212), (137, 34338), (139, 34347), (201, 34533), (218, 34575), (248, 34722), (256, 34743), (268, 34800), (274, 34824), (279, 34866), (288, 34902), (324, 35040), (357, 35142), (394, 35268), (402, 35292), (411, 35334), (479, 35619), (492, 35682), (498, 35712), (523, 35793), (528, 35808),

Gene: OverHedge_41 Start: 25901, Stop: 27808, Start Num: 18

Candidate Starts for OverHedge_41:

(Start: 18 @25901 has 24 MA's), (28, 25964), (31, 25985), (36, 26039), (84, 26216), (100, 26261), (157, 26435), (160, 26444), (186, 26534), (202, 26591), (245, 26777), (278, 26912), (281, 26924), (289, 26957), (321, 27086), (361, 27203), (404, 27278), (455, 27512), (456, 27515), (469, 27575), (487, 27665), (495, 27695), (506, 27737), (523, 27788),

Gene: Oxynfrius_29 Start: 22093, Stop: 23484, Start Num: 122

Candidate Starts for Oxynfrius_29:

(Start: 122 @22093 has 69 MA's), (155, 22180), (181, 22252), (182, 22255), (206, 22321), (212, 22339), (214, 22345), (224, 22372), (240, 22429), (247, 22480), (261, 22519), (268, 22555), (273, 22573), (277, 22609), (283, 22630), (286, 22648), (296, 22681), (311, 22720), (320, 22762), (326, 22789), (335, 22813), (347, 22849), (351, 22855), (363, 22888), (367, 22903), (370, 22912), (377, 22957), (393, 22990), (394, 22993), (427, 23098), (429, 23110), (436, 23128), (454, 23218), (461, 23239), (462, 23242), (467, 23266), (468, 23275), (486, 23362), (500, 23413), (511, 23452), (518, 23476),

Gene: PHTowN_70 Start: 50156, Stop: 48270, Start Num: 13

Candidate Starts for PHTowN_70:

(7, 50216), (Start: 13 @50156 has 8 MA's), (17, 50141), (28, 50078), (30, 50069), (31, 50057), (40, 49964), (Start: 56 @49901 has 2 MA's), (64, 49883), (84, 49826), (91, 49802), (148, 49643), (157, 49604), (160, 49595), (191, 49487), (223, 49379), (244, 49274), (270, 49175), (281, 49115), (303, 49028), (304, 49025), (328, 48920), (330, 48911), (336, 48899), (383, 48800), (406, 48761), (430, 48683), (432, 48671), (438, 48644), (456, 48554), (461, 48539), (472, 48485), (484, 48428), (517, 48302),

Gene: PartyCup_29 Start: 22162, Stop: 23556, Start Num: 122

Candidate Starts for PartyCup_29:

(Start: 122 @22162 has 69 MA's), (146, 22219), (181, 22324), (212, 22411), (238, 22495), (239, 22498), (240, 22501), (261, 22591), (268, 22627), (270, 22636), (273, 22645), (283, 22702), (286, 22720), (296, 22753), (303, 22765), (320, 22834), (326, 22861), (335, 22885), (347, 22921), (351, 22927), (363, 22960), (367, 22975), (370, 22984), (398, 23074), (418, 23143), (427, 23170), (432, 23188), (436, 23200), (454, 23290), (456, 23296), (459, 23305), (461, 23311), (468, 23347), (486,

23434), (502, 23491), (511, 23524), (518, 23548),

Gene: Patbob_102 Start: 80820, Stop: 82658, Start Num: 12

Candidate Starts for Patbob_102:

(Start: 12 @80820 has 1 MA's), (38, 80979), (62, 81075), (94, 81135), (109, 81165), (138, 81255), (147, 81285), (159, 81336), (196, 81396), (289, 81792), (293, 81813), (306, 81858), (321, 81921), (328, 81954), (331, 81966), (337, 81978), (353, 82023), (365, 82062), (395, 82119), (405, 82125), (413, 82158), (431, 82227), (450, 82311), (476, 82428), (517, 82602), (530, 82644),

Gene: PatrickStar_58 Start: 50421, Stop: 48931, Start Num: 114

Candidate Starts for PatrickStar_58:

(Start: 114 @50421 has 5 MA's), (143, 50328), (146, 50319), (151, 50307), (153, 50292), (158, 50274), (177, 50217), (194, 50145), (195, 50142), (222, 50049), (232, 50016), (237, 49983), (238, 49980), (241, 49959), (261, 49890), (268, 49854), (285, 49767), (304, 49704), (305, 49701), (313, 49671), (329, 49599), (331, 49590), (380, 49467), (382, 49461), (441, 49329), (450, 49287), (459, 49242), (466, 49212), (528, 48960),

Gene: PauloDiaboli_114 Start: 78533, Stop: 76683, Start Num: 14

Candidate Starts for PauloDiaboli_114:

(6, 78602), (7, 78596), (Start: 14 @78533 has 7 MA's), (24, 78488), (26, 78476), (43, 78350), (60, 78287), (94, 78212), (134, 78104), (141, 78086), (157, 78017), (165, 77990), (194, 77930), (238, 77765), (271, 77621), (287, 77534), (293, 77507), (304, 77471), (306, 77462), (319, 77405), (321, 77399), (331, 77354), (337, 77342), (345, 77321), (354, 77297), (365, 77261), (395, 77216), (424, 77132), (425, 77129), (428, 77123), (442, 77060), (464, 76958), (483, 76871), (490, 76829), (503, 76778),

Gene: PermaG_34 Start: 23404, Stop: 24831, Start Num: 125

Candidate Starts for PermaG_34:

(112, 23362), (Start: 125 @23404 has 2 MA's), (181, 23560), (238, 23758), (239, 23761), (240, 23764), (242, 23782), (264, 23869), (268, 23890), (288, 23989), (307, 24055), (332, 24157), (335, 24160), (351, 24205), (359, 24226), (367, 24253), (373, 24280), (374, 24283), (376, 24295), (377, 24310), (380, 24316), (397, 24352), (408, 24388), (410, 24400), (420, 24430), (444, 24514), (449, 24532), (450, 24535), (468, 24622), (472, 24634), (482, 24673), (486, 24709), (489, 24715), (507, 24790),

Gene: Pharpay_40 Start: 25956, Stop: 27863, Start Num: 18

Candidate Starts for Pharpay_40:

(Start: 18 @25956 has 24 MA's), (28, 26019), (31, 26040), (36, 26094), (84, 26271), (100, 26316), (157, 26490), (160, 26499), (186, 26589), (202, 26646), (245, 26832), (278, 26967), (281, 26979), (289, 27012), (321, 27141), (361, 27258), (404, 27333), (455, 27567), (456, 27570), (469, 27630), (487, 27720), (495, 27750), (506, 27792), (523, 27843),

Gene: Phendrix_173 Start: 92821, Stop: 90896, Start Num: 14

Candidate Starts for Phendrix_173:

(Start: 14 @92821 has 7 MA's), (23, 92779), (38, 92665), (53, 92590), (75, 92521), (96, 92452), (203, 92179), (211, 92161), (215, 92137), (226, 92098), (266, 91918), (283, 91834), (287, 91810), (303, 91750), (306, 91738), (312, 91711), (328, 91642), (329, 91639), (379, 91474), (400, 91423), (407, 91399), (422, 91333), (432, 91294), (436, 91282), (458, 91174), (466, 91141), (470, 91120), (479, 91087), (486, 91036), (493, 91018),

Gene: Philon9_55 Start: 53812, Stop: 52235, Start Num: 81

Candidate Starts for Philon9_55:

(Start: 48 @53944 has 6 MA's), (Start: 51 @53932 has 2 MA's), (Start: 81 @53812 has 1 MA's), (91, 53779), (101, 53749), (106, 53743), (143, 53635), (153, 53599), (158, 53575), (162, 53566), (164, 53557), (176, 53509), (177, 53506), (179, 53500), (180, 53497), (220, 53374), (225, 53353), (237, 53293), (256, 53221), (261, 53200), (264, 53185), (265, 53182), (266, 53173), (304, 53014), (316, 52963), (319, 52951), (321, 52945), (325, 52924), (341, 52879), (360, 52834), (371, 52792), (390, 52735), (401, 52705), (402, 52702), (403, 52699), (432, 52645), (463, 52522), (466, 52504), (489, 52387), (490, 52384), (494, 52372), (531, 52252),

Gene: PhunaPhoke_40 Start: 25929, Stop: 27836, Start Num: 18

Candidate Starts for PhunaPhoke_40:

(Start: 18 @25929 has 24 MA's), (28, 25992), (31, 26013), (36, 26067), (84, 26244), (100, 26289), (157, 26463), (160, 26472), (186, 26562), (202, 26619), (245, 26805), (278, 26940), (281, 26952), (289, 26985), (321, 27114), (361, 27231), (404, 27306), (455, 27540), (456, 27543), (469, 27603), (487, 27693), (495, 27723), (506, 27765), (523, 27816),

Gene: PierreThree_58 Start: 52668, Stop: 51259, Start Num: 142

Candidate Starts for PierreThree_58:

(35, 53046), (44, 52995), (54, 52944), (69, 52890), (78, 52860), (Start: 87 @52827 has 1 MA's), (89, 52818), (Start: 99 @52791 has 23 MA's), (Start: 142 @52668 has 24 MA's), (153, 52623), (164, 52581), (176, 52533), (177, 52530), (179, 52524), (180, 52521), (184, 52509), (185, 52503), (200, 52455), (201, 52452), (236, 52332), (239, 52314), (254, 52251), (261, 52227), (264, 52212), (282, 52119), (304, 52041), (318, 51981), (319, 51978), (322, 51969), (325, 51951), (340, 51909), (360, 51864), (364, 51846), (403, 51729), (407, 51714), (412, 51693), (449, 51612), (450, 51609), (463, 51552), (464, 51546), (466, 51534), (478, 51483), (482, 51468), (483, 51459), (489, 51420), (493, 51408), (521, 51312), (525, 51297),

Gene: PinkFriday_25 Start: 20761, Stop: 22011, Start Num: 172

Candidate Starts for PinkFriday_25:

(Start: 122 @20614 has 69 MA's), (146, 20674), (172, 20761), (181, 20779), (212, 20866), (214, 20872), (224, 20899), (238, 20950), (240, 20956), (251, 21016), (258, 21037), (261, 21046), (268, 21082), (273, 21100), (274, 21103), (277, 21136), (283, 21157), (286, 21175), (288, 21181), (296, 21208), (307, 21235), (320, 21289), (323, 21301), (326, 21316), (335, 21340), (342, 21355), (344, 21361), (351, 21382), (363, 21415), (367, 21430), (370, 21439), (380, 21490), (408, 21562), (427, 21625), (432, 21643), (450, 21715), (452, 21739), (454, 21745), (455, 21748), (461, 21766), (468, 21802), (486, 21889), (511, 21979), (518, 22003),

Gene: PitaDog_25 Start: 20567, Stop: 21961, Start Num: 122

Candidate Starts for PitaDog_25:

(Start: 122 @20567 has 69 MA's), (146, 20624), (181, 20729), (182, 20732), (212, 20816), (224, 20849), (238, 20900), (240, 20906), (258, 20987), (259, 20990), (261, 20996), (268, 21032), (273, 21050), (274, 21053), (277, 21086), (283, 21107), (320, 21239), (326, 21266), (342, 21305), (347, 21326), (351, 21332), (363, 21365), (367, 21380), (370, 21389), (377, 21434), (394, 21470), (408, 21512), (427, 21575), (432, 21593), (454, 21695), (455, 21698), (461, 21716), (462, 21719), (467, 21743), (468, 21752), (486, 21839), (511, 21929), (518, 21953),

Gene: PokyPuppy_58 Start: 52764, Stop: 51256, Start Num: 110

Candidate Starts for PokyPuppy_58:

(35, 53043), (44, 52992), (54, 52941), (68, 52893), (69, 52887), (78, 52857), (Start: 87 @52824 has 1 MA's), (89, 52815), (Start: 99 @52788 has 23 MA's), (Start: 110 @52764 has 1 MA's), (Start: 142 @52665 has 24 MA's), (153, 52620), (164, 52578), (176, 52530), (177, 52527), (179, 52521), (180, 52518), (185, 52500), (200, 52452), (236, 52329), (239, 52311), (261, 52224), (264, 52209), (282, 52116), (288, 52089), (304, 52038), (318, 51978), (319, 51975), (322, 51966), (325, 51948), (340, 51906), (360, 51861), (403, 51726), (407, 51711), (412, 51690), (444, 51633), (450, 51606), (463,

51549), (464, 51543), (466, 51531), (478, 51480), (483, 51456), (489, 51417), (493, 51405), (494, 51402), (521, 51309), (525, 51294),

Gene: Poland_66 Start: 54025, Stop: 52493, Start Num: 99

Candidate Starts for Poland_66:

(35, 54280), (44, 54229), (69, 54124), (78, 54094), (Start: 87 @54061 has 1 MA's), (89, 54052), (Start: 99 @54025 has 23 MA's), (153, 53857), (164, 53815), (169, 53797), (176, 53767), (180, 53755), (184, 53743), (185, 53737), (190, 53716), (239, 53548), (261, 53461), (264, 53446), (266, 53434), (274, 53404), (282, 53353), (304, 53275), (310, 53251), (314, 53233), (318, 53215), (319, 53212), (322, 53203), (325, 53185), (340, 53143), (360, 53098), (364, 53080), (403, 52963), (407, 52948), (412, 52927), (449, 52846), (450, 52843), (463, 52786), (464, 52780), (466, 52768), (483, 52693), (489, 52654), (493, 52642), (494, 52639), (521, 52546), (525, 52531),

Gene: Potatoes_29 Start: 22153, Stop: 23553, Start Num: 122

Candidate Starts for Potatoes_29:

(Start: 122 @22153 has 69 MA's), (146, 22216), (181, 22321), (182, 22324), (212, 22408), (224, 22441), (238, 22492), (240, 22498), (258, 22579), (259, 22582), (261, 22588), (268, 22624), (273, 22642), (274, 22645), (283, 22699), (296, 22750), (320, 22831), (326, 22858), (339, 22888), (342, 22897), (351, 22924), (363, 22957), (367, 22972), (377, 23026), (387, 23047), (393, 23059), (398, 23071), (456, 23293), (459, 23302), (461, 23308), (468, 23344), (483, 23404), (486, 23431), (511, 23521),

Gene: Potty_40 Start: 25934, Stop: 27841, Start Num: 18

Candidate Starts for Potty_40:

(Start: 18 @25934 has 24 MA's), (28, 25997), (31, 26018), (36, 26072), (84, 26249), (100, 26294), (157, 26468), (160, 26477), (186, 26567), (202, 26624), (245, 26810), (278, 26945), (281, 26957), (289, 26990), (321, 27119), (361, 27236), (404, 27311), (455, 27545), (456, 27548), (469, 27608), (487, 27698), (495, 27728), (506, 27770), (523, 27821),

Gene: Poultruss_40 Start: 26280, Stop: 28187, Start Num: 18

Candidate Starts for Poultruss_40:

(Start: 18 @26280 has 24 MA's), (28, 26343), (31, 26364), (36, 26418), (84, 26595), (100, 26640), (157, 26814), (160, 26823), (186, 26913), (202, 26970), (245, 27156), (278, 27291), (281, 27303), (289, 27336), (321, 27465), (361, 27582), (456, 27894), (469, 27954), (487, 28044), (495, 28074), (506, 28116), (523, 28167),

Gene: Preamble_25 Start: 20577, Stop: 21971, Start Num: 122

Candidate Starts for Preamble_25:

(Start: 122 @20577 has 69 MA's), (146, 20634), (181, 20739), (182, 20742), (212, 20826), (224, 20859), (239, 20913), (240, 20916), (261, 21006), (268, 21042), (274, 21063), (277, 21096), (283, 21117), (296, 21168), (320, 21249), (326, 21276), (342, 21315), (351, 21342), (363, 21375), (367, 21390), (370, 21399), (377, 21444), (394, 21480), (419, 21561), (427, 21585), (432, 21603), (436, 21615), (450, 21675), (452, 21699), (454, 21705), (455, 21708), (461, 21726), (462, 21729), (467, 21753), (468, 21762), (486, 21849), (500, 21900), (511, 21939),

Gene: Pumancara_25 Start: 20596, Stop: 21993, Start Num: 122

Candidate Starts for Pumancara_25:

(Start: 122 @20596 has 69 MA's), (146, 20656), (172, 20743), (181, 20761), (212, 20848), (214, 20854), (224, 20881), (238, 20932), (240, 20938), (251, 20998), (258, 21019), (261, 21028), (268, 21064), (273, 21082), (274, 21085), (277, 21118), (283, 21139), (288, 21163), (296, 21190), (307, 21217), (320, 21271), (323, 21283), (326, 21298), (335, 21322), (342, 21337), (351, 21364), (363, 21397), (367, 21412), (370, 21421), (380, 21472), (408, 21544), (419, 21583), (427, 21607), (432, 21625), (450, 21697), (452, 21721), (454, 21727), (455, 21730), (461, 21748), (468, 21784), (486,

21871), (496, 21910), (511, 21961), (518, 21985), (520, 21988),

Gene: Pumpernickel_111 Start: 80095, Stop: 78248, Start Num: 14

Candidate Starts for Pumpernickel_111:

(Start: 14 @80095 has 7 MA's), (60, 79855), (61, 79852), (67, 79831), (94, 79780), (134, 79672), (Start: 142 @79651 has 24 MA's), (198, 79489), (247, 79276), (266, 79210), (271, 79189), (274, 79180), (284, 79123), (287, 79102), (293, 79075), (304, 79039), (306, 79030), (308, 79018), (319, 78973), (321, 78967), (328, 78934), (366, 78823), (368, 78820), (391, 78778), (411, 78727), (442, 78607), (447, 78580), (460, 78520), (488, 78382), (490, 78376), (502, 78328), (519, 78268),

Gene: RAP15_29 Start: 22157, Stop: 23557, Start Num: 122

Candidate Starts for RAP15_29:

(Start: 122 @22157 has 69 MA's), (146, 22220), (181, 22325), (182, 22328), (212, 22412), (224, 22445), (238, 22496), (240, 22502), (258, 22583), (259, 22586), (261, 22592), (268, 22628), (273, 22646), (274, 22649), (283, 22703), (296, 22754), (320, 22835), (326, 22862), (339, 22892), (342, 22901), (351, 22928), (363, 22961), (367, 22976), (377, 23030), (387, 23051), (393, 23063), (398, 23075), (456, 23297), (459, 23306), (461, 23312), (468, 23348), (483, 23408), (486, 23435), (511, 23525),

Gene: Racecar_102 Start: 80738, Stop: 82576, Start Num: 12

Candidate Starts for Racecar_102:

(Start: 12 @80738 has 1 MA's), (27, 80819), (38, 80897), (62, 80993), (94, 81053), (109, 81083), (147, 81203), (159, 81254), (196, 81314), (276, 81653), (289, 81710), (293, 81731), (306, 81776), (319, 81833), (321, 81839), (328, 81872), (331, 81884), (337, 81896), (353, 81941), (365, 81980), (395, 82037), (405, 82043), (413, 82076), (431, 82145), (450, 82229), (476, 82346), (517, 82520), (530, 82562),

Gene: Rachella_40 Start: 25937, Stop: 27844, Start Num: 18

Candidate Starts for Rachella_40:

(Start: 18 @25937 has 24 MA's), (28, 26000), (31, 26021), (36, 26075), (84, 26252), (100, 26297), (157, 26471), (160, 26480), (186, 26570), (202, 26627), (245, 26813), (278, 26948), (281, 26960), (289, 26993), (321, 27122), (361, 27239), (404, 27314), (455, 27548), (456, 27551), (469, 27611), (487, 27701), (495, 27731), (506, 27773), (523, 27824),

Gene: Rasovi_33 Start: 23465, Stop: 24892, Start Num: 125

Candidate Starts for Rasovi_33:

(113, 23426), (118, 23447), (Start: 125 @23465 has 2 MA's), (239, 23822), (251, 23885), (264, 23930), (268, 23951), (332, 24218), (351, 24266), (359, 24287), (367, 24314), (373, 24341), (374, 24344), (377, 24371), (380, 24377), (397, 24413), (420, 24491), (427, 24512), (432, 24530), (436, 24542), (454, 24626), (468, 24683), (472, 24695), (482, 24734), (486, 24770), (489, 24776),

Gene: RcigaStruga_29 Start: 22127, Stop: 23518, Start Num: 122

Candidate Starts for RcigaStruga_29:

(Start: 122 @22127 has 69 MA's), (155, 22214), (181, 22286), (182, 22289), (206, 22355), (212, 22373), (214, 22379), (224, 22406), (240, 22463), (258, 22544), (261, 22553), (268, 22589), (273, 22607), (277, 22643), (283, 22664), (286, 22682), (296, 22715), (311, 22754), (320, 22796), (326, 22823), (335, 22847), (347, 22883), (351, 22889), (363, 22922), (367, 22937), (370, 22946), (377, 22991), (393, 23024), (394, 23027), (419, 23108), (429, 23144), (432, 23150), (436, 23162), (454, 23252), (461, 23273), (462, 23276), (467, 23300), (468, 23309), (486, 23396), (500, 23447), (511, 23486), (518, 23510),

Gene: RemRem_60 Start: 51466, Stop: 49934, Start Num: 99

Candidate Starts for RemRem_60:

(35, 51721), (44, 51670), (54, 51619), (69, 51565), (78, 51535), (Start: 87 @51502 has 1 MA's), (89, 51493), (Start: 99 @51466 has 23 MA's), (153, 51298), (164, 51256), (176, 51208), (180, 51196), (184, 51184), (185, 51178), (190, 51157), (200, 51130), (239, 50989), (261, 50902), (264, 50887), (266, 50875), (274, 50845), (282, 50794), (288, 50767), (304, 50716), (314, 50674), (318, 50656), (319, 50653), (325, 50626), (340, 50584), (360, 50539), (403, 50404), (407, 50389), (412, 50368), (444, 50311), (449, 50287), (450, 50284), (463, 50227), (464, 50221), (465, 50215), (466, 50209), (478, 50158), (483, 50134), (489, 50095), (493, 50083), (494, 50080), (521, 49987), (525, 49972), (531, 49951),

Gene: Reynauld_56 Start: 50676, Stop: 49183, Start Num: 116

Candidate Starts for Reynauld_56:

(Start: 116 @50676 has 3 MA's), (123, 50640), (138, 50607), (Start: 142 @50598 has 24 MA's), (143, 50589), (146, 50580), (149, 50571), (153, 50553), (172, 50493), (176, 50481), (179, 50472), (226, 50325), (237, 50268), (241, 50244), (259, 50181), (282, 50067), (303, 49992), (304, 49989), (310, 49965), (314, 49947), (319, 49926), (328, 49887), (331, 49875), (333, 49872), (401, 49695), (409, 49659), (466, 49446), (475, 49404), (486, 49338), (505, 49263), (510, 49248),

Gene: Rie18_40 Start: 25493, Stop: 27400, Start Num: 18

Candidate Starts for Rie18_40:

(2, 25319), (Start: 18 @25493 has 24 MA's), (28, 25556), (31, 25577), (36, 25631), (79, 25793), (84, 25808), (100, 25853), (157, 26027), (160, 26036), (186, 26126), (187, 26129), (197, 26168), (202, 26183), (239, 26333), (245, 26369), (275, 26477), (278, 26504), (281, 26516), (289, 26549), (321, 26678), (361, 26795), (456, 27107), (469, 27167), (487, 27257), (495, 27287), (496, 27293), (506, 27329), (523, 27380),

Gene: RikSengupta_42 Start: 26725, Stop: 28659, Start Num: 19

Candidate Starts for RikSengupta_42:

(Start: 4 @26629 has 1 MA's), (17, 26719), (Start: 19 @26725 has 2 MA's), (36, 26872), (38, 26890), (84, 27049), (127, 27175), (157, 27265), (160, 27274), (186, 27364), (197, 27406), (207, 27436), (238, 27568), (281, 27754), (285, 27772), (289, 27787), (304, 27844), (317, 27904), (338, 27976), (381, 28093), (392, 28114), (415, 28180), (423, 28210), (443, 28288), (456, 28366), (469, 28426), (480, 28465), (487, 28516), (494, 28534), (524, 28642),

Gene: Riovina_26 Start: 21745, Stop: 23139, Start Num: 122

Candidate Starts for Riovina_26:

(Start: 122 @21745 has 69 MA's), (146, 21802), (172, 21889), (181, 21907), (182, 21910), (212, 21994), (224, 22027), (238, 22078), (240, 22084), (251, 22144), (261, 22174), (268, 22210), (273, 22228), (283, 22285), (286, 22303), (288, 22309), (296, 22336), (320, 22417), (326, 22444), (335, 22468), (342, 22483), (351, 22510), (363, 22543), (367, 22558), (408, 22690), (418, 22726), (427, 22753), (429, 22765), (436, 22783), (454, 22873), (456, 22879), (461, 22894), (462, 22897), (468, 22930), (483, 22990), (486, 23017), (502, 23074), (511, 23107), (518, 23131),

Gene: Riverdale_29 Start: 22087, Stop: 23487, Start Num: 122

Candidate Starts for Riverdale_29:

(Start: 122 @22087 has 69 MA's), (146, 22150), (181, 22255), (182, 22258), (212, 22342), (224, 22375), (238, 22426), (240, 22432), (258, 22513), (259, 22516), (261, 22522), (268, 22558), (273, 22576), (274, 22579), (277, 22612), (283, 22633), (286, 22651), (296, 22684), (320, 22765), (326, 22792), (339, 22822), (342, 22831), (351, 22858), (363, 22891), (367, 22906), (377, 22960), (387, 22981), (393, 22993), (398, 23005), (456, 23227), (459, 23236), (461, 23242), (468, 23278), (483, 23338), (486, 23365), (511, 23455),

Gene: RobinSparkles_61 Start: 50974, Stop: 49484, Start Num: 114

Candidate Starts for RobinSparkles_61:

(Start: 114 @50974 has 5 MA's), (143, 50881), (146, 50872), (151, 50860), (153, 50845), (158, 50827), (177, 50770), (194, 50698), (195, 50695), (222, 50602), (232, 50569), (237, 50536), (238, 50533), (241, 50512), (261, 50443), (268, 50407), (285, 50320), (304, 50257), (305, 50254), (313, 50224), (329, 50152), (331, 50143), (380, 50020), (382, 50014), (441, 49882), (450, 49840), (459, 49795), (466, 49765), (528, 49513),

Gene: Rooney_70 Start: 50294, Stop: 48408, Start Num: 13

Candidate Starts for Rooney_70:

(Start: 13 @50294 has 8 MA's), (17, 50279), (28, 50216), (30, 50207), (40, 50102), (52, 50063), (Start: 56 @50039 has 2 MA's), (84, 49964), (91, 49940), (148, 49781), (157, 49742), (160, 49733), (191, 49625), (223, 49517), (235, 49469), (259, 49364), (270, 49313), (281, 49253), (298, 49187), (303, 49166), (304, 49163), (328, 49058), (330, 49049), (336, 49037), (383, 48938), (430, 48821), (432, 48809), (438, 48782), (456, 48692), (461, 48677), (472, 48623), (484, 48566), (512, 48458), (517, 48440),

Gene: RoyalG_59 Start: 52241, Stop: 50709, Start Num: 99

Candidate Starts for RoyalG_59:

(35, 52496), (44, 52445), (69, 52340), (78, 52310), (Start: 87 @52277 has 1 MA's), (89, 52268), (Start: 99 @52241 has 23 MA's), (Start: 142 @52118 has 24 MA's), (153, 52073), (164, 52031), (176, 51983), (177, 51980), (179, 51974), (180, 51971), (185, 51953), (190, 51932), (200, 51905), (236, 51782), (239, 51764), (261, 51677), (264, 51662), (282, 51569), (304, 51491), (310, 51467), (318, 51431), (325, 51401), (340, 51359), (360, 51314), (403, 51179), (407, 51164), (412, 51143), (450, 51059), (463, 51002), (464, 50996), (466, 50984), (478, 50933), (483, 50909), (489, 50870), (493, 50858), (494, 50855), (521, 50762), (525, 50747),

Gene: Rozby_29 Start: 22088, Stop: 23488, Start Num: 122

Candidate Starts for Rozby_29:

(Start: 122 @22088 has 69 MA's), (146, 22151), (181, 22256), (182, 22259), (212, 22343), (224, 22376), (238, 22427), (240, 22433), (258, 22514), (259, 22517), (261, 22523), (268, 22559), (273, 22577), (274, 22580), (277, 22613), (283, 22634), (286, 22652), (296, 22685), (320, 22766), (326, 22793), (339, 22823), (342, 22832), (351, 22859), (363, 22892), (367, 22907), (377, 22961), (387, 22982), (393, 22994), (398, 23006), (456, 23228), (459, 23237), (461, 23243), (468, 23279), (483, 23339), (486, 23366), (511, 23456),

Gene: SBlackberry_33 Start: 23236, Stop: 24663, Start Num: 126

Candidate Starts for SBlackberry_33:

(Start: 126 @23236 has 11 MA's), (231, 23554), (239, 23593), (251, 23656), (264, 23701), (268, 23722), (288, 23821), (332, 23989), (351, 24037), (359, 24058), (367, 24085), (373, 24112), (377, 24142), (378, 24145), (380, 24148), (397, 24184), (420, 24262), (444, 24346), (449, 24364), (450, 24367), (468, 24454), (472, 24466), (482, 24505), (486, 24541), (489, 24547), (500, 24592), (507, 24622),

Gene: SJReid_108 Start: 73084, Stop: 74940, Start Num: 12

Candidate Starts for SJReid_108:

(Start: 12 @73084 has 1 MA's), (62, 73342), (65, 73348), (80, 73381), (85, 73390), (109, 73450), (113, 73465), (138, 73540), (147, 73570), (159, 73621), (196, 73681), (271, 73984), (293, 74098), (306, 74143), (319, 74200), (321, 74206), (328, 74239), (331, 74251), (349, 74299), (353, 74308), (356, 74317), (386, 74386), (413, 74443), (431, 74512), (448, 74590), (450, 74596), (470, 74689), (476, 74713), (493, 74794), (502, 74833), (516, 74884),

Gene: Salgado_95 Start: 54910, Stop: 56574, Start Num: 82

Candidate Starts for Salgado_95:

(Start: 82 @54910 has 7 MA's), (102, 54973), (120, 55033), (137, 55069), (149, 55114), (187, 55234), (224, 55327), (229, 55351), (233, 55363), (242, 55417), (253, 55468), (262, 55504), (267, 55531), (274, 55558), (279, 55600), (313, 55717), (331, 55795), (340, 55813), (357, 55864), (367, 55897), (375, 55930), (393, 55987), (402, 56014), (411, 56056), (428, 56113), (432, 56137), (440, 56167), (444, 56185), (450, 56212), (472, 56314), (479, 56341), (482, 56353), (495, 56422), (497, 56431), (504, 56461), (506, 56467), (519, 56503), (524, 56518), (529, 56533), (533, 56554),

Gene: Sam12_58 Start: 51466, Stop: 49934, Start Num: 99

Candidate Starts for Sam12_58:

(35, 51721), (44, 51670), (54, 51619), (69, 51565), (78, 51535), (Start: 87 @51502 has 1 MA's), (89, 51493), (Start: 99 @51466 has 23 MA's), (153, 51298), (164, 51256), (176, 51208), (180, 51196), (184, 51184), (185, 51178), (190, 51157), (200, 51130), (239, 50989), (261, 50902), (264, 50887), (266, 50875), (274, 50845), (282, 50794), (288, 50767), (304, 50716), (314, 50674), (318, 50656), (319, 50653), (325, 50626), (340, 50584), (360, 50539), (403, 50404), (407, 50389), (412, 50368), (444, 50311), (449, 50287), (450, 50284), (463, 50227), (464, 50221), (465, 50215), (466, 50209), (478, 50158), (483, 50134), (489, 50095), (493, 50083), (494, 50080), (521, 49987), (525, 49972), (531, 49951),

Gene: Sapo_34 Start: 32116, Stop: 30710, Start Num: 128

Candidate Starts for Sapo_34:

(57, 32353), (59, 32350), (88, 32239), (93, 32224), (Start: 128 @32116 has 12 MA's), (153, 32038), (162, 32011), (173, 31981), (177, 31978), (242, 31771), (247, 31738), (297, 31531), (342, 31384), (346, 31369), (390, 31228), (432, 31093), (441, 31063), (442, 31060), (454, 30991), (455, 30988), (462, 30967), (469, 30931), (470, 30928), (489, 30841), (493, 30829), (511, 30742),

Gene: Savage2526_29 Start: 22151, Stop: 23551, Start Num: 122

Candidate Starts for Savage2526_29:

(Start: 122 @22151 has 69 MA's), (146, 22214), (181, 22319), (182, 22322), (212, 22406), (224, 22439), (238, 22490), (240, 22496), (258, 22577), (259, 22580), (261, 22586), (268, 22622), (273, 22640), (274, 22643), (283, 22697), (296, 22748), (320, 22829), (326, 22856), (339, 22886), (342, 22895), (351, 22922), (363, 22955), (367, 22970), (377, 23024), (387, 23045), (393, 23057), (398, 23069), (456, 23291), (459, 23300), (461, 23306), (468, 23342), (483, 23402), (486, 23429), (511, 23519),

Gene: Scuttle_29 Start: 22156, Stop: 23556, Start Num: 122

Candidate Starts for Scuttle_29:

(Start: 122 @22156 has 69 MA's), (146, 22219), (181, 22324), (182, 22327), (212, 22411), (224, 22444), (238, 22495), (240, 22501), (258, 22582), (259, 22585), (261, 22591), (268, 22627), (273, 22645), (274, 22648), (277, 22681), (283, 22702), (296, 22753), (320, 22834), (326, 22861), (342, 22900), (351, 22927), (363, 22960), (367, 22975), (377, 23029), (387, 23050), (393, 23062), (398, 23074), (432, 23188), (456, 23296), (459, 23305), (461, 23311), (468, 23347), (483, 23407), (486, 23434), (511, 23524),

Gene: Sergei_26 Start: 21732, Stop: 23129, Start Num: 122

Candidate Starts for Sergei_26:

(Start: 122 @21732 has 69 MA's), (146, 21792), (172, 21879), (181, 21897), (182, 21900), (212, 21984), (214, 21990), (224, 22017), (238, 22068), (240, 22074), (247, 22125), (251, 22134), (258, 22155), (261, 22164), (268, 22200), (274, 22221), (277, 22254), (283, 22275), (286, 22293), (288, 22299), (296, 22326), (303, 22338), (307, 22353), (320, 22407), (335, 22458), (339, 22464), (342, 22473), (344, 22479), (351, 22500), (363, 22533), (367, 22548), (370, 22557), (408, 22680), (419, 22719), (427, 22743), (429, 22755), (454, 22863), (456, 22869), (459, 22878), (461, 22884), (468, 22920), (486, 23007), (511, 23097), (518, 23121),

Gene: ShakeNBake_70 Start: 50183, Stop: 48297, Start Num: 13

Candidate Starts for ShakeNBake_70:

(7, 50243), (Start: 13 @50183 has 8 MA's), (17, 50168), (28, 50105), (30, 50096), (31, 50084), (40, 49991), (Start: 56 @49928 has 2 MA's), (64, 49910), (84, 49853), (91, 49829), (148, 49670), (157, 49631), (160, 49622), (191, 49514), (223, 49406), (244, 49301), (270, 49202), (281, 49142), (303, 49055), (304, 49052), (328, 48947), (330, 48938), (336, 48926), (383, 48827), (406, 48788), (430, 48710), (432, 48698), (438, 48671), (456, 48581), (461, 48566), (472, 48512), (484, 48455), (517, 48329),

Gene: Shelley_57 Start: 52086, Stop: 50674, Start Num: 142

Candidate Starts for Shelley_57:

(35, 52434), (66, 52305), (Start: 87 @52215 has 1 MA's), (Start: 142 @52086 has 24 MA's), (153, 52041), (176, 51951), (177, 51948), (179, 51942), (185, 51921), (208, 51858), (228, 51780), (236, 51750), (239, 51732), (261, 51645), (264, 51630), (274, 51588), (289, 51507), (304, 51459), (314, 51417), (318, 51399), (319, 51396), (325, 51369), (343, 51318), (360, 51282), (373, 51231), (403, 51147), (408, 51126), (463, 50970), (464, 50964), (466, 50952), (493, 50826), (525, 50712),

Gene: Shrooms_93 Start: 54534, Stop: 56189, Start Num: 82

Candidate Starts for Shrooms_93:

(Start: 82 @54534 has 7 MA's), (102, 54597), (108, 54606), (115, 54627), (135, 54690), (179, 54828), (187, 54858), (224, 54951), (233, 54987), (242, 55041), (253, 55092), (259, 55116), (262, 55128), (267, 55155), (272, 55176), (274, 55182), (279, 55224), (313, 55341), (331, 55419), (340, 55437), (357, 55488), (367, 55521), (375, 55554), (389, 55602), (402, 55638), (411, 55680), (440, 55791), (444, 55809), (450, 55836), (453, 55863), (479, 55965), (495, 56046), (497, 56055), (498, 56058), (504, 56085), (506, 56091), (519, 56127), (524, 56142), (533, 56178),

Gene: Sixama_168 Start: 96248, Stop: 94338, Start Num: 11

Candidate Starts for Sixama_168:

(Start: 11 @96248 has 5 MA's), (Start: 18 @96227 has 24 MA's), (20, 96218), (23, 96200), (29, 96155), (31, 96140), (33, 96116), (38, 96086), (60, 95996), (72, 95951), (77, 95939), (96, 95870), (140, 95753), (147, 95726), (203, 95597), (234, 95480), (242, 95432), (261, 95363), (293, 95201), (304, 95165), (306, 95156), (309, 95141), (312, 95129), (321, 95093), (328, 95060), (352, 94985), (356, 94973), (369, 94934), (387, 94883), (436, 94721), (479, 94526), (488, 94469), (499, 94424),

Gene: Snakehole_40 Start: 25114, Stop: 27021, Start Num: 18

Candidate Starts for Snakehole_40:

(Start: 18 @25114 has 24 MA's), (28, 25177), (31, 25198), (36, 25252), (84, 25429), (100, 25474), (157, 25648), (160, 25657), (186, 25747), (202, 25804), (245, 25990), (278, 26125), (281, 26137), (289, 26170), (321, 26299), (361, 26416), (455, 26725), (456, 26728), (469, 26788), (487, 26878), (495, 26908), (506, 26950), (523, 27001),

Gene: Sombrero_60 Start: 52033, Stop: 50501, Start Num: 99

Candidate Starts for Sombrero_60:

(35, 52288), (44, 52237), (69, 52132), (78, 52102), (Start: 87 @52069 has 1 MA's), (89, 52060), (Start: 99 @52033 has 23 MA's), (153, 51865), (164, 51823), (176, 51775), (180, 51763), (184, 51751), (185, 51745), (190, 51724), (239, 51556), (261, 51469), (264, 51454), (266, 51442), (274, 51412), (282, 51361), (304, 51283), (310, 51259), (314, 51241), (318, 51223), (319, 51220), (322, 51211), (325, 51193), (360, 51106), (403, 50971), (407, 50956), (412, 50935), (449, 50854), (450, 50851), (463, 50794), (464, 50788), (466, 50776), (478, 50725), (483, 50701), (489, 50662), (493, 50650), (494, 50647), (521, 50554), (525, 50539), (531, 50518),

Gene: Sparcetus_42 Start: 26604, Stop: 28538, Start Num: 19

Candidate Starts for Sparcetus_42:

(Start: 4 @26508 has 1 MA's), (17, 26598), (Start: 19 @26604 has 2 MA's), (36, 26751), (38, 26769), (84, 26928), (127, 27054), (157, 27144), (160, 27153), (186, 27243), (207, 27315), (238, 27447), (281, 27633), (285, 27651), (289, 27666), (304, 27723), (317, 27783), (338, 27855), (392, 27993), (415, 28059), (423, 28089), (424, 28092), (443, 28167), (456, 28245), (469, 28305), (480, 28344), (487, 28395), (494, 28413), (524, 28521),

Gene: Squibbles_58 Start: 52329, Stop: 50797, Start Num: 99

Candidate Starts for Squibbles_58:

(35, 52584), (44, 52533), (54, 52482), (69, 52428), (78, 52398), (Start: 87 @52365 has 1 MA's), (89, 52356), (Start: 99 @52329 has 23 MA's), (153, 52161), (164, 52119), (176, 52071), (180, 52059), (184, 52047), (185, 52041), (190, 52020), (200, 51993), (239, 51852), (261, 51765), (264, 51750), (266, 51738), (274, 51708), (282, 51657), (288, 51630), (304, 51579), (314, 51537), (318, 51519), (319, 51516), (325, 51489), (340, 51447), (360, 51402), (403, 51267), (407, 51252), (412, 51231), (444, 51174), (450, 51147), (463, 51090), (464, 51084), (465, 51078), (466, 51072), (478, 51021), (483, 50997), (489, 50958), (493, 50946), (494, 50943), (521, 50850), (525, 50835), (531, 50814),

Gene: SteveFrench_58 Start: 52481, Stop: 50949, Start Num: 99

Candidate Starts for SteveFrench_58:

(35, 52736), (44, 52685), (69, 52580), (78, 52550), (Start: 87 @52517 has 1 MA's), (89, 52508), (Start: 99 @52481 has 23 MA's), (Start: 142 @52358 has 24 MA's), (153, 52313), (164, 52271), (176, 52223), (177, 52220), (179, 52214), (180, 52211), (185, 52193), (190, 52172), (200, 52145), (236, 52022), (239, 52004), (261, 51917), (264, 51902), (282, 51809), (304, 51731), (310, 51707), (318, 51671), (325, 51641), (340, 51599), (360, 51554), (403, 51419), (407, 51404), (412, 51383), (450, 51299), (463, 51242), (464, 51236), (466, 51224), (478, 51173), (483, 51149), (489, 51110), (493, 51098), (494, 51095), (521, 51002), (525, 50987),

Gene: Sticker17_57 Start: 52601, Stop: 51189, Start Num: 142

Candidate Starts for Sticker17_57:

(35, 52949), (66, 52820), (86, 52733), (Start: 87 @52730 has 1 MA's), (Start: 142 @52601 has 24 MA's), (153, 52556), (176, 52466), (177, 52463), (179, 52457), (185, 52436), (208, 52373), (236, 52265), (239, 52247), (261, 52160), (264, 52145), (274, 52103), (289, 52022), (304, 51974), (314, 51932), (318, 51914), (319, 51911), (325, 51884), (343, 51833), (360, 51797), (373, 51746), (403, 51662), (408, 51641), (463, 51485), (464, 51479), (466, 51467), (493, 51341), (525, 51227),

Gene: Stuff_42 Start: 31323, Stop: 32717, Start Num: 128

Candidate Starts for Stuff_42:

(Start: 128 @31323 has 12 MA's), (Start: 129 @31326 has 2 MA's), (153, 31401), (161, 31425), (163, 31431), (173, 31455), (181, 31470), (182, 31473), (183, 31476), (210, 31545), (218, 31560), (227, 31596), (251, 31695), (258, 31716), (271, 31773), (297, 31896), (332, 32031), (344, 32058), (351, 32079), (374, 32157), (380, 32190), (383, 32199), (401, 32241), (419, 32307), (427, 32331), (432, 32349), (437, 32367), (450, 32421), (454, 32451), (468, 32508), (469, 32511), (482, 32559), (488, 32598), (493, 32613), (509, 32682), (515, 32700), (518, 32709),

Gene: Sucha_30 Start: 20665, Stop: 22092, Start Num: 126

Candidate Starts for Sucha_30:

(117, 20644), (Start: 126 @20665 has 11 MA's), (238, 21019), (239, 21022), (242, 21043), (264, 21130), (274, 21172), (346, 21454), (351, 21466), (359, 21487), (367, 21514), (373, 21541), (374, 21544), (377, 21571), (380, 21577), (397, 21613), (427, 21712), (444, 21775), (450, 21796), (462, 21850), (468, 21883), (472, 21895), (482, 21934), (486, 21970), (489, 21976), (493, 21988), (500, 22021), (507, 22051),

Gene: Suppi_29 Start: 22165, Stop: 23559, Start Num: 122

Candidate Starts for Suppi_29:

(Start: 122 @22165 has 69 MA's), (146, 22222), (181, 22327), (212, 22414), (238, 22498), (239, 22501), (240, 22504), (261, 22594), (268, 22630), (270, 22639), (273, 22648), (283, 22705), (286, 22723), (296, 22756), (303, 22768), (320, 22837), (326, 22864), (335, 22888), (351, 22930), (363, 22963), (367, 22978), (370, 22987), (398, 23077), (418, 23146), (427, 23173), (432, 23191), (436, 23203), (454, 23293), (456, 23299), (459, 23308), (461, 23314), (468, 23350), (486, 23437), (500, 23488), (511, 23527), (518, 23551),

Gene: Talia1610_103 Start: 80103, Stop: 81941, Start Num: 12

Candidate Starts for Talia1610_103:

(Start: 12 @80103 has 1 MA's), (27, 80184), (38, 80262), (62, 80358), (94, 80418), (109, 80448), (147, 80568), (159, 80619), (196, 80679), (276, 81018), (289, 81075), (293, 81096), (306, 81141), (319, 81198), (321, 81204), (328, 81237), (331, 81249), (337, 81261), (353, 81306), (365, 81345), (395, 81402), (405, 81408), (413, 81441), (431, 81510), (450, 81594), (476, 81711), (517, 81885), (530, 81927),

Gene: TattModd_29 Start: 22150, Stop: 23550, Start Num: 122

Candidate Starts for TattModd_29:

(Start: 122 @22150 has 69 MA's), (146, 22213), (181, 22318), (182, 22321), (212, 22405), (224, 22438), (238, 22489), (240, 22495), (258, 22576), (259, 22579), (261, 22585), (268, 22621), (273, 22639), (274, 22642), (277, 22675), (283, 22696), (286, 22714), (296, 22747), (320, 22828), (326, 22855), (339, 22885), (342, 22894), (351, 22921), (363, 22954), (367, 22969), (377, 23023), (387, 23044), (393, 23056), (398, 23068), (456, 23290), (459, 23299), (461, 23305), (468, 23341), (483, 23401), (486, 23428), (511, 23518),

Gene: Teal_57 Start: 53068, Stop: 51656, Start Num: 142

Candidate Starts for Teal_57:

(35, 53416), (66, 53287), (86, 53200), (Start: 87 @53197 has 1 MA's), (Start: 142 @53068 has 24 MA's), (153, 53023), (176, 52933), (177, 52930), (179, 52924), (185, 52903), (208, 52840), (236, 52732), (239, 52714), (261, 52627), (264, 52612), (274, 52570), (289, 52489), (304, 52441), (314, 52399), (318, 52381), (319, 52378), (325, 52351), (343, 52300), (360, 52264), (373, 52213), (403, 52129), (408, 52108), (463, 51952), (464, 51946), (466, 51934), (493, 51808), (525, 51694),

Gene: Teatealatte_58 Start: 53221, Stop: 51518, Start Num: 48

Candidate Starts for Teatealatte_58:

(Start: 48 @53221 has 6 MA's), (Start: 51 @53209 has 2 MA's), (105, 53026), (Start: 142 @52936 has 24 MA's), (143, 52927), (153, 52891), (158, 52867), (162, 52858), (164, 52849), (176, 52801), (180, 52789), (184, 52777), (201, 52720), (208, 52705), (210, 52702), (215, 52684), (224, 52648), (225, 52645), (254, 52516), (256, 52513), (264, 52477), (265, 52474), (268, 52456), (270, 52447), (274, 52435), (281, 52387), (289, 52354), (304, 52306), (310, 52282), (325, 52216), (360, 52117), (390, 52018), (402, 51985), (403, 51982), (436, 51916), (449, 51865), (450, 51862), (463, 51805), (466, 51787), (489, 51670), (490, 51667), (494, 51655), (525, 51556), (531, 51535),

Gene: Tedro_40 Start: 25407, Stop: 27314, Start Num: 18

Candidate Starts for Tedro_40:

(Start: 18 @25407 has 24 MA's), (28, 25470), (31, 25491), (36, 25545), (84, 25722), (100, 25767), (157, 25941), (160, 25950), (186, 26040), (202, 26097), (245, 26283), (278, 26418), (281, 26430), (289, 26463), (302, 26508), (321, 26592), (361, 26709), (450, 26982), (455, 27018), (456, 27021), (469, 27081), (487, 27171), (495, 27201), (506, 27243), (523, 27294),

Gene: Teech_56 Start: 53010, Stop: 51319, Start Num: 51

Candidate Starts for Teech_56:

(Start: 48 @53022 has 6 MA's), (Start: 51 @53010 has 2 MA's), (105, 52827), (Start: 142 @52737 has 24 MA's), (143, 52728), (153, 52692), (158, 52668), (162, 52659), (164, 52650), (176, 52602), (184,

52578), (208, 52506), (215, 52485), (224, 52449), (225, 52446), (254, 52317), (256, 52314), (264, 52278), (265, 52275), (268, 52257), (270, 52248), (274, 52236), (281, 52188), (289, 52155), (304, 52107), (310, 52083), (325, 52017), (360, 51918), (390, 51819), (394, 51810), (402, 51786), (403, 51783), (436, 51717), (449, 51666), (450, 51663), (463, 51606), (466, 51588), (489, 51471), (490, 51468), (494, 51456), (525, 51357), (531, 51336),

Gene: Temper16_26 Start: 21732, Stop: 23129, Start Num: 122

Candidate Starts for Temper16_26:

(Start: 122 @21732 has 69 MA's), (146, 21792), (172, 21879), (181, 21897), (182, 21900), (212, 21984), (214, 21990), (224, 22017), (238, 22068), (240, 22074), (247, 22125), (251, 22134), (258, 22155), (261, 22164), (268, 22200), (274, 22221), (277, 22254), (283, 22275), (286, 22293), (288, 22299), (296, 22326), (303, 22338), (307, 22353), (320, 22407), (335, 22458), (339, 22464), (342, 22473), (344, 22479), (351, 22500), (363, 22533), (367, 22548), (370, 22557), (408, 22680), (419, 22719), (427, 22743), (429, 22755), (454, 22863), (456, 22869), (459, 22878), (461, 22884), (468, 22920), (486, 23007), (511, 23097), (518, 23121),

Gene: Theresita_31 Start: 21253, Stop: 22665, Start Num: 126

Candidate Starts for Theresita_31:

(Start: 126 @21253 has 11 MA's), (177, 21397), (183, 21415), (216, 21505), (255, 21664), (259, 21682), (261, 21688), (264, 21703), (268, 21724), (274, 21745), (323, 21955), (332, 21991), (351, 22039), (359, 22060), (363, 22072), (367, 22087), (373, 22114), (376, 22129), (397, 22186), (419, 22261), (427, 22285), (436, 22315), (439, 22327), (450, 22369), (454, 22399), (468, 22456), (472, 22468), (489, 22549), (490, 22552), (495, 22576), (500, 22594), (507, 22624),

Gene: TinyMiny_42 Start: 26527, Stop: 28557, Start Num: 4

Candidate Starts for TinyMiny_42:

(1, 26383), (Start: 4 @26527 has 1 MA's), (17, 26617), (Start: 19 @26623 has 2 MA's), (36, 26770), (38, 26788), (39, 26797), (84, 26947), (127, 27073), (157, 27163), (160, 27172), (186, 27262), (197, 27304), (238, 27466), (281, 27652), (285, 27670), (289, 27685), (304, 27742), (317, 27802), (338, 27874), (392, 28012), (415, 28078), (423, 28108), (443, 28186), (456, 28264), (469, 28324), (480, 28363), (487, 28414), (494, 28432), (524, 28540),

Gene: Tredge_57 Start: 53221, Stop: 51518, Start Num: 48

Candidate Starts for Tredge_57:

(Start: 48 @53221 has 6 MA's), (Start: 51 @53209 has 2 MA's), (105, 53026), (Start: 142 @52936 has 24 MA's), (143, 52927), (153, 52891), (158, 52867), (162, 52858), (164, 52849), (176, 52801), (180, 52789), (184, 52777), (201, 52720), (208, 52705), (210, 52702), (215, 52684), (224, 52648), (225, 52645), (254, 52516), (256, 52513), (264, 52477), (265, 52474), (268, 52456), (270, 52447), (274, 52435), (281, 52387), (289, 52354), (304, 52306), (310, 52282), (325, 52216), (360, 52117), (390, 52018), (402, 51985), (403, 51982), (436, 51916), (449, 51865), (450, 51862), (463, 51805), (466, 51787), (489, 51670), (490, 51667), (494, 51655), (525, 51556), (531, 51535),

Gene: Trogglehumper_76 Start: 59717, Stop: 58170, Start Num: 103

Candidate Starts for Trogglehumper_76:

(70, 59828), (88, 59762), (Start: 103 @59717 has 1 MA's), (144, 59600), (153, 59567), (166, 59525), (168, 59519), (176, 59495), (196, 59429), (199, 59420), (200, 59417), (220, 59354), (228, 59315), (241, 59249), (260, 59183), (264, 59165), (266, 59153), (270, 59135), (278, 59087), (279, 59081), (304, 59003), (314, 58961), (318, 58943), (333, 58886), (337, 58877), (385, 58751), (402, 58709), (403, 58706), (408, 58685), (417, 58652), (433, 58595), (466, 58445), (471, 58421), (483, 58370), (502, 58280), (513, 58241), (522, 58220), (526, 58208), (527, 58205), (532, 58193),

Gene: TurboVicky_33 Start: 23252, Stop: 24679, Start Num: 126

Candidate Starts for TurboVicky_33:

(113, 23210), (Start: 126 @23252 has 11 MA's), (231, 23570), (264, 23717), (268, 23738), (332, 24005), (351, 24053), (359, 24074), (374, 24131), (380, 24164), (397, 24200), (420, 24278), (427, 24299), (449, 24380), (450, 24383), (468, 24470), (472, 24482), (482, 24521), (486, 24557), (489, 24563), (493, 24575), (507, 24638),

Gene: Typher_35 Start: 23381, Stop: 24808, Start Num: 126

Candidate Starts for Typher_35:

(113, 23339), (Start: 126 @23381 has 11 MA's), (231, 23699), (251, 23801), (264, 23846), (268, 23867), (332, 24134), (351, 24182), (359, 24203), (374, 24260), (380, 24293), (397, 24329), (420, 24407), (427, 24428), (449, 24509), (450, 24512), (468, 24599), (472, 24611), (482, 24650), (486, 24686), (493, 24704), (507, 24767),

Gene: UNTPL_44 Start: 31380, Stop: 32774, Start Num: 128

Candidate Starts for UNTPL_44:

(Start: 128 @31380 has 12 MA's), (Start: 129 @31383 has 2 MA's), (153, 31458), (161, 31482), (173, 31512), (181, 31527), (218, 31617), (227, 31653), (251, 31752), (254, 31761), (271, 31830), (297, 31953), (332, 32088), (344, 32115), (351, 32136), (374, 32214), (380, 32247), (383, 32256), (401, 32298), (419, 32364), (427, 32388), (432, 32406), (437, 32424), (450, 32478), (454, 32508), (468, 32565), (469, 32568), (482, 32616), (488, 32655), (493, 32670), (509, 32739), (515, 32757), (518, 32766),

Gene: Urla_26 Start: 21745, Stop: 23142, Start Num: 122

Candidate Starts for Urla_26:

(Start: 122 @21745 has 69 MA's), (146, 21805), (181, 21910), (212, 21997), (224, 22030), (238, 22081), (240, 22087), (258, 22168), (261, 22177), (268, 22213), (273, 22231), (274, 22234), (277, 22267), (283, 22288), (308, 22369), (320, 22420), (326, 22447), (339, 22477), (342, 22486), (347, 22507), (351, 22513), (363, 22546), (367, 22561), (370, 22570), (380, 22621), (394, 22651), (419, 22732), (432, 22774), (442, 22807), (452, 22870), (459, 22891), (461, 22897), (465, 22912), (468, 22933), (486, 23020), (502, 23077), (511, 23110),

Gene: Vallejo_29 Start: 22089, Stop: 23489, Start Num: 122

Candidate Starts for Vallejo_29:

(Start: 122 @22089 has 69 MA's), (146, 22152), (181, 22257), (182, 22260), (212, 22344), (224, 22377), (238, 22428), (240, 22434), (258, 22515), (259, 22518), (261, 22524), (268, 22560), (273, 22578), (274, 22581), (277, 22614), (283, 22635), (286, 22653), (296, 22686), (320, 22767), (326, 22794), (339, 22824), (342, 22833), (351, 22860), (363, 22893), (367, 22908), (377, 22962), (387, 22983), (393, 22995), (398, 23007), (456, 23229), (459, 23238), (461, 23244), (468, 23280), (483, 23340), (486, 23367), (511, 23457),

Gene: Vulture_26 Start: 21745, Stop: 23139, Start Num: 122

Candidate Starts for Vulture_26:

(Start: 122 @21745 has 69 MA's), (146, 21802), (172, 21889), (181, 21907), (182, 21910), (212, 21994), (224, 22027), (238, 22078), (240, 22084), (251, 22144), (261, 22174), (268, 22210), (273, 22228), (277, 22264), (283, 22285), (286, 22303), (288, 22309), (296, 22336), (320, 22417), (326, 22444), (335, 22468), (342, 22483), (351, 22510), (363, 22543), (367, 22558), (418, 22726), (427, 22753), (429, 22765), (436, 22783), (454, 22873), (456, 22879), (461, 22894), (462, 22897), (468, 22930), (483, 22990), (486, 23017), (502, 23074), (511, 23107), (518, 23131),

Gene: Waltz_91 Start: 53322, Stop: 54977, Start Num: 82

Candidate Starts for Waltz_91:

(Start: 82 @53322 has 7 MA's), (102, 53385), (108, 53394), (135, 53478), (187, 53646), (224, 53739), (233, 53775), (242, 53829), (253, 53880), (262, 53916), (267, 53943), (274, 53970), (277, 54003), (279, 54012), (313, 54129), (331, 54207), (340, 54225), (357, 54276), (367, 54309), (375, 54342),

(389, 54390), (402, 54426), (411, 54468), (440, 54579), (444, 54597), (450, 54624), (453, 54651), (472, 54726), (479, 54753), (493, 54819), (495, 54834), (497, 54843), (498, 54846), (504, 54873), (506, 54879), (524, 54930), (530, 54951), (533, 54966),

Gene: Wawa_29 Start: 22126, Stop: 23526, Start Num: 122

Candidate Starts for Wawa_29:

(Start: 122 @22126 has 69 MA's), (146, 22189), (181, 22294), (182, 22297), (212, 22381), (224, 22414), (238, 22465), (240, 22471), (258, 22552), (259, 22555), (261, 22561), (268, 22597), (273, 22615), (274, 22618), (277, 22651), (283, 22672), (286, 22690), (296, 22723), (320, 22804), (326, 22831), (339, 22861), (342, 22870), (351, 22897), (363, 22930), (367, 22945), (377, 22999), (387, 23020), (393, 23032), (398, 23044), (432, 23158), (456, 23266), (459, 23275), (461, 23281), (468, 23317), (483, 23377), (486, 23404), (511, 23494),

Gene: Wayne_29 Start: 22211, Stop: 23605, Start Num: 122

Candidate Starts for Wayne_29:

(Start: 122 @22211 has 69 MA's), (146, 22268), (181, 22373), (212, 22460), (238, 22544), (239, 22547), (240, 22550), (261, 22640), (268, 22676), (270, 22685), (273, 22694), (283, 22751), (286, 22769), (296, 22802), (303, 22814), (320, 22883), (326, 22910), (335, 22934), (351, 22976), (363, 23009), (367, 23024), (370, 23033), (398, 23123), (418, 23192), (427, 23219), (432, 23237), (436, 23249), (454, 23339), (456, 23345), (459, 23354), (461, 23360), (468, 23396), (486, 23483), (500, 23534), (511, 23573), (518, 23597),

Gene: Wentworth_70 Start: 50269, Stop: 48383, Start Num: 13

Candidate Starts for Wentworth_70:

(5, 50335), (7, 50326), (9, 50305), (Start: 12 @50272 has 1 MA's), (Start: 13 @50269 has 8 MA's), (17, 50254), (28, 50191), (30, 50182), (31, 50170), (34, 50122), (39, 50089), (40, 50077), (49, 50056), (Start: 56 @50014 has 2 MA's), (84, 49939), (91, 49915), (157, 49717), (160, 49708), (174, 49663), (191, 49600), (223, 49492), (235, 49444), (259, 49339), (270, 49288), (281, 49228), (303, 49141), (304, 49138), (328, 49033), (330, 49024), (336, 49012), (383, 48913), (430, 48796), (432, 48784), (438, 48757), (440, 48751), (456, 48667), (472, 48598), (484, 48541), (486, 48523), (501, 48469), (517, 48415),

Gene: Wheelbite_90 Start: 54992, Stop: 56656, Start Num: 82

Candidate Starts for Wheelbite_90:

(Start: 82 @54992 has 7 MA's), (102, 55055), (108, 55064), (137, 55151), (149, 55196), (187, 55316), (224, 55409), (229, 55433), (233, 55445), (242, 55499), (253, 55550), (262, 55586), (267, 55613), (272, 55634), (274, 55640), (279, 55682), (313, 55799), (331, 55877), (340, 55895), (357, 55946), (367, 55979), (375, 56012), (393, 56069), (402, 56096), (411, 56138), (432, 56219), (440, 56249), (444, 56267), (450, 56294), (453, 56321), (472, 56396), (479, 56423), (482, 56435), (495, 56504), (496, 56510), (497, 56513), (498, 56516), (504, 56543), (506, 56549), (519, 56585), (524, 56600), (529, 56615), (533, 56636),

Gene: Wilkos_72 Start: 50432, Stop: 48546, Start Num: 13

Candidate Starts for Wilkos_72:

(3, 50525), (5, 50498), (7, 50489), (9, 50468), (Start: 12 @50435 has 1 MA's), (Start: 13 @50432 has 8 MA's), (17, 50417), (28, 50354), (30, 50345), (31, 50333), (34, 50285), (39, 50252), (40, 50240), (49, 50219), (Start: 56 @50177 has 2 MA's), (84, 50102), (118, 49994), (138, 49949), (157, 49880), (160, 49871), (191, 49763), (235, 49607), (252, 49523), (259, 49502), (270, 49451), (281, 49391), (304, 49301), (315, 49247), (328, 49196), (330, 49187), (336, 49175), (347, 49142), (383, 49076), (432, 48947), (438, 48920), (440, 48914), (456, 48830), (472, 48761), (475, 48746), (484, 48704), (486, 48686), (501, 48632), (517, 48578),

Gene: Woes_57 Start: 53248, Stop: 51707, Start Num: 87

Candidate Starts for Woes_57:

(35, 53467), (66, 53338), (86, 53251), (Start: 87 @53248 has 1 MA's), (Start: 142 @53119 has 24 MA's), (153, 53074), (176, 52984), (177, 52981), (179, 52975), (185, 52954), (208, 52891), (236, 52783), (239, 52765), (261, 52678), (264, 52663), (274, 52621), (289, 52540), (304, 52492), (314, 52450), (318, 52432), (319, 52429), (325, 52402), (343, 52351), (360, 52315), (373, 52264), (403, 52180), (408, 52159), (463, 52003), (464, 51997), (466, 51985), (493, 51859), (525, 51745),

Gene: Wollypog_43 Start: 30596, Stop: 32524, Start Num: 15

Candidate Starts for Wollypog_43:

(Start: 15 @30596 has 1 MA's), (21, 30620), (36, 30746), (46, 30794), (Start: 56 @30848 has 2 MA's), (80, 30911), (84, 30923), (121, 31034), (148, 31100), (150, 31106), (175, 31199), (183, 31229), (186, 31244), (188, 31250), (257, 31514), (268, 31562), (271, 31574), (278, 31619), (294, 31688), (302, 31709), (328, 31829), (353, 31895), (365, 31934), (405, 31997), (458, 32228), (481, 32327), (485, 32354), (506, 32453), (508, 32462),

Gene: WonderBoy_25 Start: 20548, Stop: 21942, Start Num: 122

Candidate Starts for WonderBoy_25:

(Start: 122 @20548 has 69 MA's), (146, 20605), (181, 20710), (212, 20797), (224, 20830), (238, 20881), (240, 20887), (258, 20968), (259, 20971), (261, 20977), (268, 21013), (273, 21031), (274, 21034), (277, 21067), (283, 21088), (320, 21220), (326, 21247), (342, 21286), (347, 21307), (351, 21313), (363, 21346), (367, 21361), (370, 21370), (377, 21415), (394, 21451), (408, 21493), (427, 21556), (432, 21574), (454, 21676), (455, 21679), (461, 21697), (462, 21700), (467, 21724), (468, 21733), (486, 21820), (511, 21910), (518, 21934),

Gene: Yara_66 Start: 49125, Stop: 47230, Start Num: 13

Candidate Starts for Yara_66:

(Start: 13 @49125 has 8 MA's), (16, 49113), (17, 49110), (25, 49071), (28, 49047), (30, 49038), (31, 49026), (40, 48933), (Start: 56 @48870 has 2 MA's), (84, 48795), (91, 48771), (96, 48756), (138, 48645), (145, 48624), (157, 48576), (197, 48438), (246, 48240), (259, 48198), (270, 48147), (281, 48087), (283, 48081), (304, 47997), (328, 47892), (336, 47871), (344, 47853), (355, 47820), (383, 47772), (430, 47649), (432, 47637), (438, 47610), (456, 47520), (457, 47517), (472, 47451), (484, 47394), (486, 47376), (488, 47373), (506, 47301), (523, 47250),

Gene: Zanella_33 Start: 23260, Stop: 24687, Start Num: 126

Candidate Starts for Zanella_33:

(113, 23218), (Start: 126 @23260 has 11 MA's), (231, 23578), (264, 23725), (268, 23746), (332, 24013), (351, 24061), (359, 24082), (374, 24139), (380, 24172), (397, 24208), (420, 24286), (427, 24307), (449, 24388), (450, 24391), (468, 24478), (472, 24490), (482, 24529), (486, 24565), (489, 24571), (490, 24574), (493, 24583), (507, 24646),

Gene: Zooman_98 Start: 76212, Stop: 74272, Start Num: 14

Candidate Starts for Zooman_98:

(Start: 14 @76212 has 7 MA's), (33, 76086), (37, 76059), (60, 75966), (61, 75963), (94, 75891), (121, 75810), (132, 75786), (195, 75510), (266, 75225), (271, 75204), (288, 75114), (304, 75054), (306, 75045), (309, 75030), (319, 74988), (321, 74982), (328, 74949), (331, 74937), (336, 74928), (345, 74904), (365, 74844), (391, 74808), (425, 74712), (428, 74706), (442, 74643), (445, 74622), (447, 74616), (464, 74541), (465, 74535), (468, 74514), (483, 74454), (490, 74412), (495, 74388), (498, 74376),

Gene: Zorro_29 Start: 22105, Stop: 23505, Start Num: 122

Candidate Starts for Zorro_29:

(Start: 122 @22105 has 69 MA's), (146, 22168), (181, 22273), (182, 22276), (212, 22360), (224, 22393), (238, 22444), (240, 22450), (258, 22531), (259, 22534), (261, 22540), (268, 22576), (273,

22594), (274, 22597), (277, 22630), (283, 22651), (296, 22702), (320, 22783), (326, 22810), (339, 22840), (342, 22849), (351, 22876), (363, 22909), (367, 22924), (377, 22978), (387, 22999), (393, 23011), (398, 23023), (456, 23245), (459, 23254), (461, 23260), (468, 23296), (483, 23356), (486, 23383), (511, 23473),