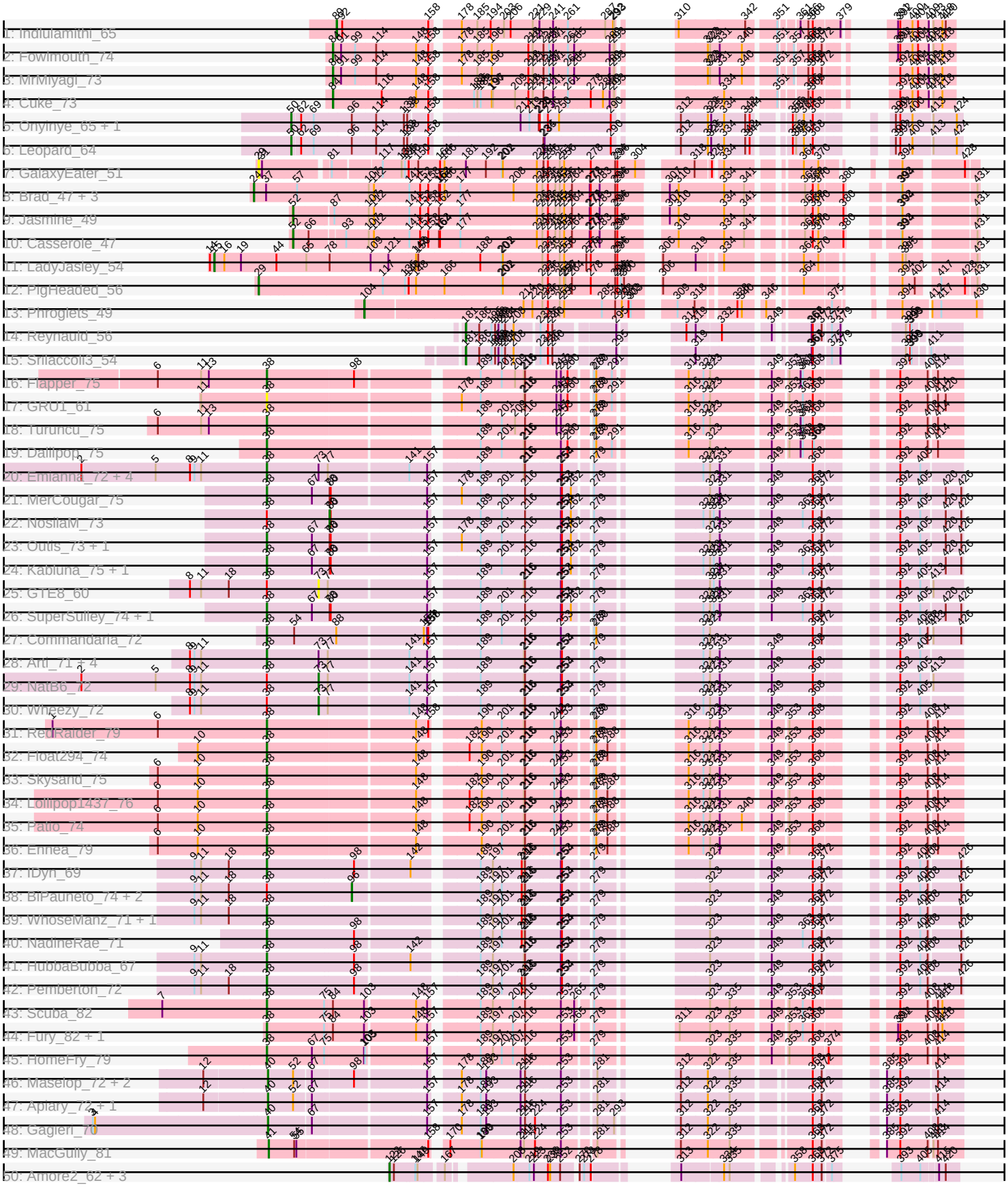
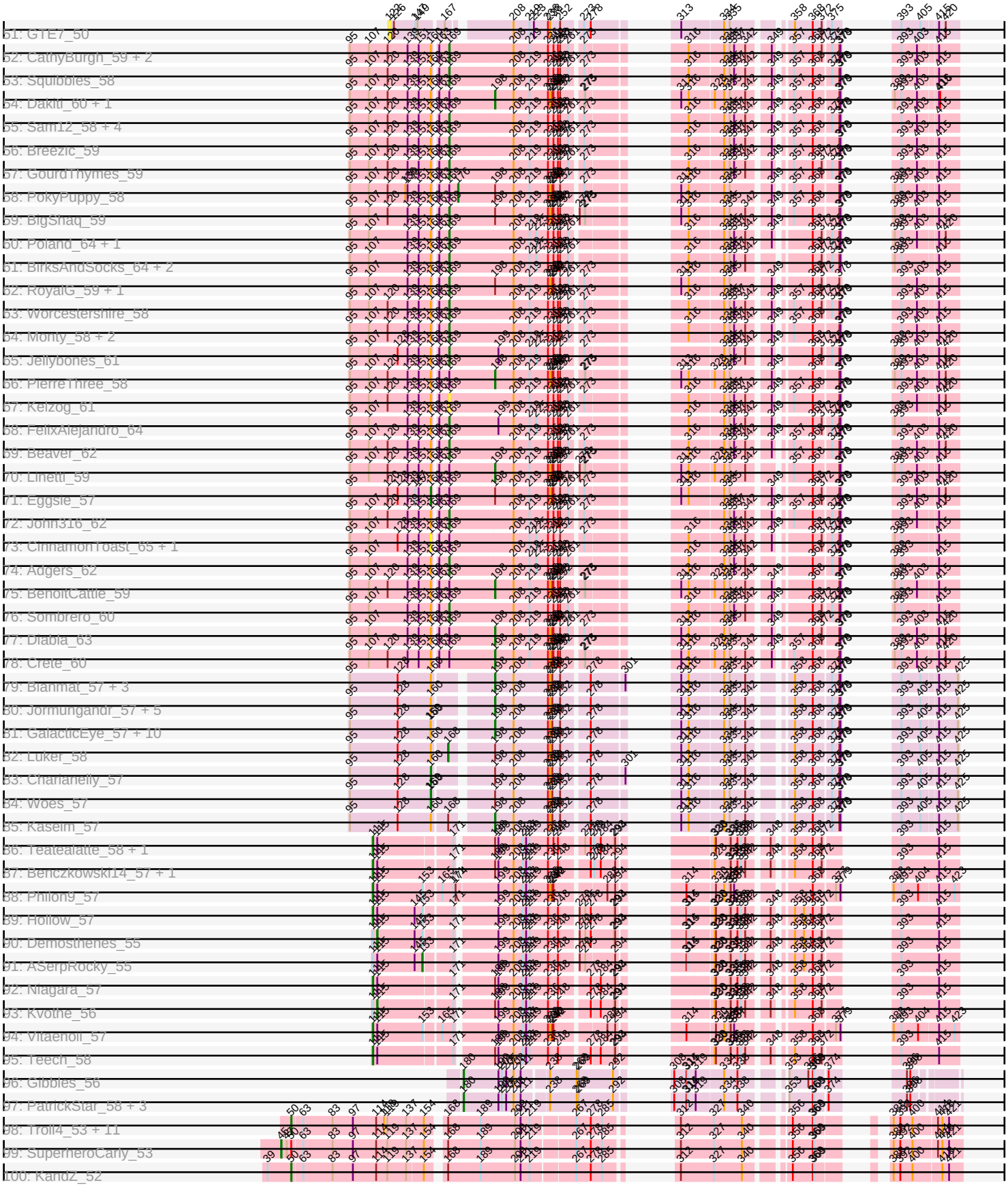
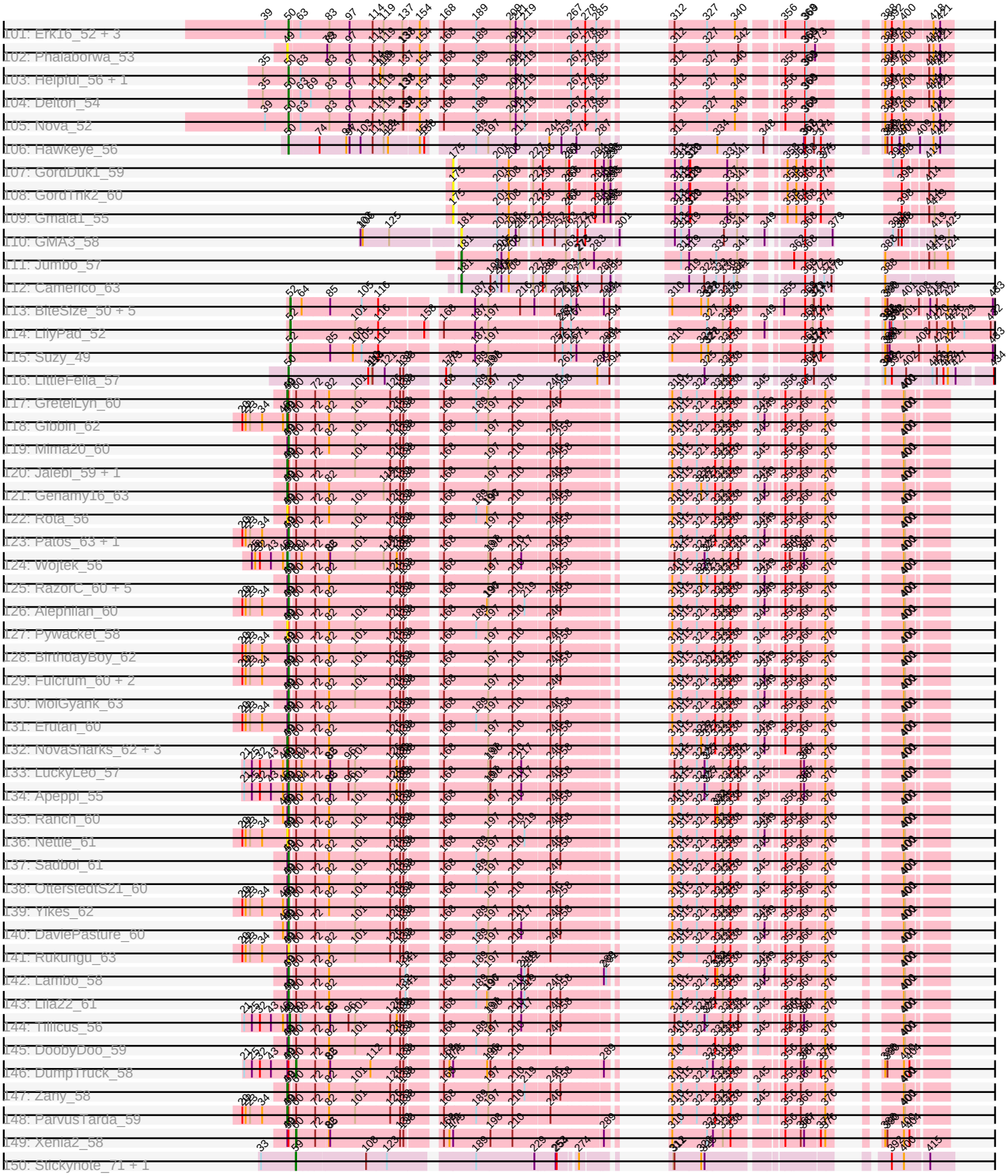
Zoomed Pham 330412



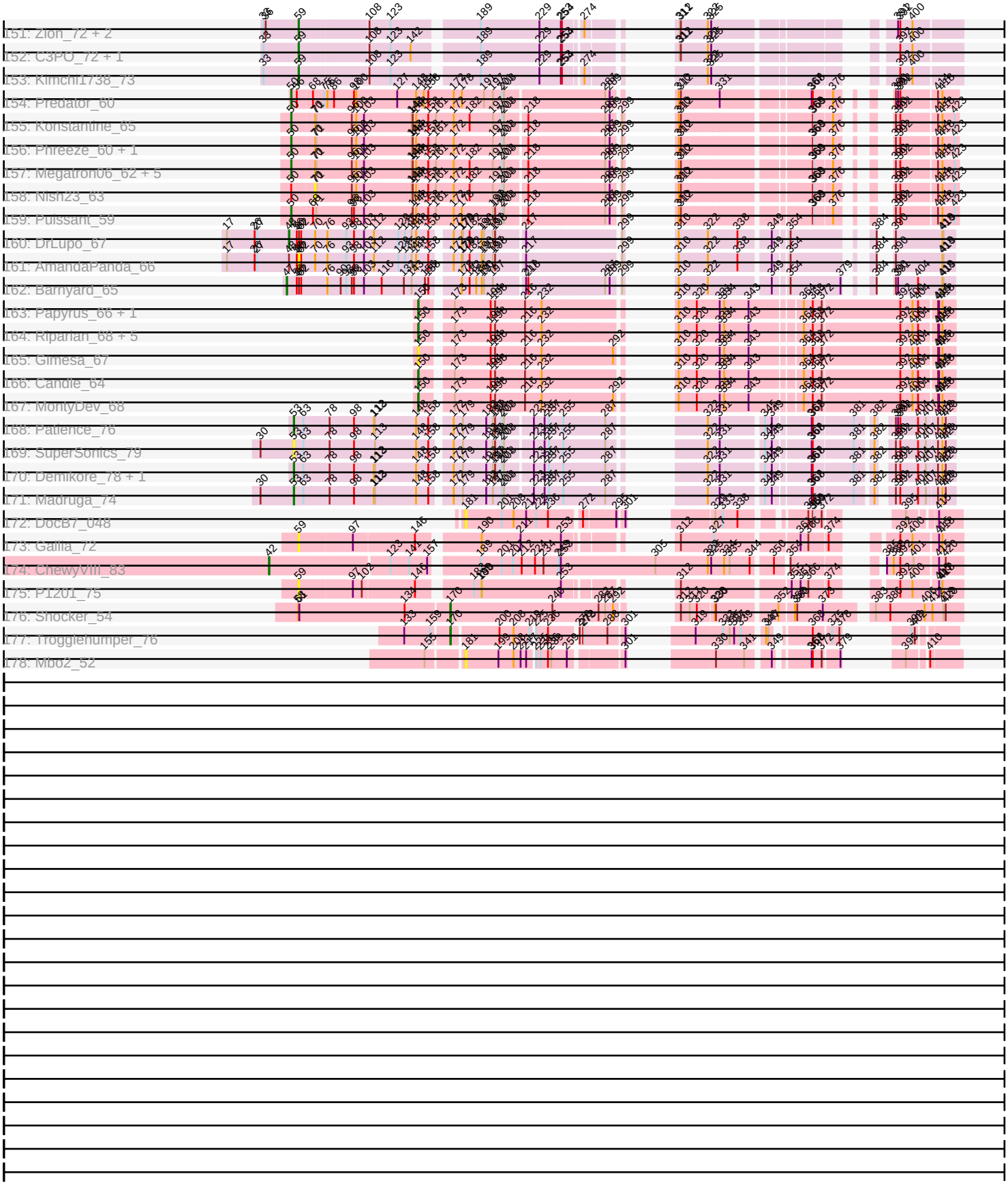
Zoomed Pham 330412



Zoomed Pham 330412



Zoomed Pham 330412



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 330412 Report

This analysis was run 09/05/26 on database version 662.

Pham number 330412 has 289 members, 27 are drafts.

Phages represented in each track:
- Track 1 : Indlulamithi_65
- Track 2 : Fowlmouth_74
- Track 3 : MrMiyagi_73
- Track 4 : Cuke_73
- Track 5 : Onyinye_65, Aikoy_65
- Track 6 : Leopard_64
- Track 7 : GalaxyEater_51
- Track 8 : Brad_47, GurgleFerb_47, Adat_47, Nellie_47
- Track 9 : Jasmine_49
- Track 10 : Casserole_47
- Track 11 : LadyJasley_54
- Track 12 : PigHeaded_56
- Track 13 : Phroglets_49
- Track 14 : Reynauld_56
- Track 15 : Srilaccoli3_54
- Track 16 : Flapper_75
- Track 17 : GRU1_61
- Track 18 : Turuncu_75
- Track 19 : Dalilpop_75
- Track 20 : Emianna_72, Kurt_72, KidneyBean_72, Phomeo_71, Jifall16_71
- Track 21 : MerCougar_75
- Track 22 : NosilaM_73
- Track 23 : Outis_73, StarStruck_73
- Track 24 : Kabluna_75, Bonum_76
- Track 25 : GTE8_60
- Track 26 : SuperSulley_74, Buggaboo_74
- Track 27 : Commandaria_72
- Track 28 : Arti_71, Foxboro_72, NovumRegina_72, GrootJr_74, Tracker_72
- Track 29 : NatB6_72
- Track 30 : Wheezy_72
- Track 31 : RedRaider_79
- Track 32 : Float294_74
- Track 33 : Skysand_75
- Track 34 : Lollipop1437_76
- Track 35 : Patio_74
- Track 36 : Ennea_79
- Track 37 : IDyn_69

• Track 38 : BiPauneto_74, Yndexa_71, Sukkupi_71
• Track 39 : WhoseManz_71, Marietta_72
• Track 40 : NadineRae_71
• Track 41 : HubbaBubba_67
• Track 42 : Pemberton_72
• Track 43 : Scuba_82
• Track 44 : Fury_82, Pleakley_82
• Track 45 : HomeFry_79
• Track 46 : Maselop_72, CoffeeBean_72, Braxoaddie_72
• Track 47 : Apiary_72, Polyyuki_72
• Track 48 : Gagieri_70
• Track 49 : MacGully_81
• Track 50 : Amore2_62, Austin_61, HayZem_62, GMA7_51
• Track 51 : GTE7_50
• Track 52 : CathyBurgh_59, Barbochs_57, Lizzo_59
• Track 53 : Squibbles_58
• Track 54 : Dakiti_60, Chelms_59
• Track 55 : Sam12_58, Ekhein_59, Flakey_58, RemRem_60, Exiguo_58
• Track 56 : Breezic_59
• Track 57 : GourdThymes_59
• Track 58 : PokyPuppy_58
• Track 59 : BigShaq_59
• Track 60 : Poland_64, Msay19_64
• Track 61 : BirksAndSocks_64, Boneham_63, Butterball_62
• Track 62 : RoyalG_59, SteveFrench_58
• Track 63 : Worcestershire_58
• Track 64 : Monty_58, Hotorobo_59, Gorko_58
• Track 65 : Jellybones_61
• Track 66 : PierreThree_58
• Track 67 : Kelzog_61
• Track 68 : FelixAlejandro_64
• Track 69 : Beaver_62
• Track 70 : Linetti_59
• Track 71 : Eggsie_57
• Track 72 : John316_62
• Track 73 : CinnamonToast_65, BillyBobJr_65
• Track 74 : Adgers_62
• Track 75 : BenoitCattle_59
• Track 76 : Sombrero_60
• Track 77 : Diabla_63
• Track 78 : Crete_60
• Track 79 : Bianmat_57, Shelley_57, Lidong_57, Jams_57
• Track 80 : Jormungandr_57, MrWormie_57, Lahirium_57, Berries_57, Guillaume_57, Nimi13_57
• Track 81 : GalacticEye_57, Sticker17_57, Anamika_57, Hail2Pitt_56, Neoevie_57, Damp_57, Teal_57, Hello_57, Minos_58, Harambe_57, Newt_58
• Track 82 : Luker_58
• Track 83 : Charianelly_57
• Track 84 : Woes_57
• Track 85 : Kaseim_57
• Track 86 : Teatealatte_58, Tredge_57
• Track 87 : Benczkowski14_57, Katyusha_57
• Track 88 : Philon9_57

• Track 89 : Hollow_57
• Track 90 : Demosthenes_55
• Track 91 : ASerpRocky_55
• Track 92 : Niagara_57
• Track 93 : Kvothe_56
• Track 94 : Vitaenoii_57
• Track 95 : Teech_58
• Track 96 : Gibbles_56
• Track 97 : PatrickStar_58, Kampe_58, RobinSparkles_61, Orchid_57
• Track 98 : Troll4_53, BigMama_51, Giuseppe_53, Butterscotch_52, Mopey_54, PBI1_50, Visconti_54, Chill_55, Adjutor_52, Prager_53, WaldoWhy_55, Thoth_53
• Track 99 : SuperheroCarly_53
• Track 100 : KandZ_52
• Track 101 : Erk16_52, Gumball_52, PLot_53, SirHarley_54
• Track 102 : Phalaborwa_53
• Track 103 : Helpful_56, Penelope2018_53
• Track 104 : Delton_54
• Track 105 : Nova_52
• Track 106 : Hawkeye_56
• Track 107 : GordDuk1_59
• Track 108 : GordTnk2_60
• Track 109 : Gmala1_55
• Track 110 : GMA3_58
• Track 111 : Jumbo_57
• Track 112 : Camerico_63
• Track 113 : BiteSize_50, Terapin_51, Beyoncage_50, Sienna_50, Madi_50, Djokovic_50
• Track 114 : LilyPad_52
• Track 115 : Suzy_49
• Track 116 : LittleFella_57
• Track 117 : GretelLyn_60
• Track 118 : Gibbin_62
• Track 119 : Mima20_60
• Track 120 : Jalebi_59, Sampudon_60
• Track 121 : Genamy16_63
• Track 122 : Rota_56
• Track 123 : Patos_63, NorManre_63
• Track 124 : Wojtek_56
• Track 125 : RazorC_60, Astralis_60, Charminar_59, Stormer_60, Rumi_61, Riduram_59
• Track 126 : Alephilan_60
• Track 127 : Pywacket_58
• Track 128 : BirthdayBoy_62
• Track 129 : Fulcrum_60, GOATification_60, LavAbarElk_60
• Track 130 : MoiGyank_63
• Track 131 : Erutan_60
• Track 132 : NovaSharks_62, Jamemuya19_59, Avian_59, Alyssamiracle_63
• Track 133 : LuckyLeo_57
• Track 134 : Apeppi_55
• Track 135 : Ranch_60
• Track 136 : Nettle_61
• Track 137 : Sadboi_61
• Track 138 : OtterstedtS21_60

• Track 139 : Yikes_62
• Track 140 : DaviePasture_60
• Track 141 : Rukungu_63
• Track 142 : Lambo_58
• Track 143 : Lila22_61
• Track 144 : Tillicus_56
• Track 145 : DoobyDoo_59
• Track 146 : DumpTruck_58
• Track 147 : Zany_58
• Track 148 : ParvusTarda_59
• Track 149 : Xenia2_58
• Track 150 : Stickynote_71, Darwin_73
• Track 151 : Zion_72, PotatoChip_72, PeteyPab_71
• Track 152 : C3PO_72, Cruella_72
• Track 153 : Kimchi1738_73
• Track 154 : Predator_60
• Track 155 : Konstantine_65
• Track 156 : Phreeze_60, Thumb_62
• Track 157 : Megatron06_62, Damien_61, Cborch11_63, BobtimousPrime_63, Beckerton_60, Oaker_60
• Track 158 : Nish23_63
• Track 159 : Puissant_59
• Track 160 : DrLupo_67
• Track 161 : AmandaPanda_66
• Track 162 : Barnyard_65
• Track 163 : Papyrus_66, Rope_66
• Track 164 : Riparian_68, Zenon_68, Yelo_65, Send513_66, Weiss13_66, Nilo_68
• Track 165 : Gimesa_67
• Track 166 : Candle_64
• Track 167 : MontyDev_68
• Track 168 : Patience_76
• Track 169 : SuperSonics_79
• Track 170 : Demikore_78, Labelle_76
• Track 171 : Madruga_74
• Track 172 : DocB7_048
• Track 173 : Gallia_72
• Track 174 : ChewyVIII_83
• Track 175 : P1201_75
• Track 176 : Shocker_54
• Track 177 : Trogglehumper_76
• Track 178 : 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 50, it was called in 61 of the 262 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Adjutor_52, Aikoy_65, Alephilan_60, Apeppi_55, Astralis_60, Beckerton_60, BigMama_51, BirthdayBoy_62, BobtimousPrime_63, Butterscotch_52, Cborch11_63,

Charminar_59, Chill_55, Damien_61, DaviePasture_60, Delton_54, DoobyDoo_59, Erk16_52, Erutan_60, Fulcrum_60, GOATification_60, Giuseppe_53, Gumball_52, Hawkeye_56, Helpful_56, KandZ_52, Konstantine_65, Lambo_58, LavAbarElk_60, Leopard_64, Lila22_61, LittleFella_57, Megatron06_62, Mima20_60, MoiGyank_63, Mopey_54, NorManre_63, Nova_52, Oaker_60, Onyinye_65, OtterstedtS21_60, PBI1_50, PLot_53, Patos_63, Penelope2018_53, Phreeze_60, Prager_53, Predator_60, Puissant_59, Ranch_60, RazorC_60, Riduram_59, Rukungu_63, Rumi_61, Sadboi_61, SirHarley_54, Stormer_60, Thoth_53, Thumb_62, Troll4_53, Visconti_54, WaldoWhy_55, Yikes_62,

Genes that have the "Most Annotated" start but do not call it:
• Alyssamiracle_63, Avian_59, DumpTruck_58, Genamy16_63, Gibbin_62, GretelLyn_60, Jalebi_59, Jamemuya19_59, LuckyLeo_57, Nettle_61, Nish23_63, NovaSharks_62, ParvusTarda_59, Pywacket_58, Rota_56, Sampudon_60, SuperheroCarly_53, Xenia2_58, Zany_58,

Genes that do not have the "Most Annotated" start:
• ASerpRocky_55, Adat_47, Adgers_62, AmandaPanda_66, Amore2_62, Anamika_57, Apiary_72, Arti_71, Austin_61, Barbochs_57, Barnyard_65, Beaver_62, Benczkowski14_57, BenoitCattle_59, Berries_57, Beyoncage_50, BiPauneto_74, Bianmat_57, BigShaq_59, BillyBobJr_65, BirksAndSocks_64, BiteSize_50, Boneham_63, Bonum_76, Brad_47, Braxoaddie_72, Breezic_59, Buggaboo_74, Butterball_62, C3PO_72, Camerico_63, Candle_64, Casserole_47, CathyBurgh_59, Charianelly_57, Chelms_59, ChewyVIII_83, CinnamonToast_65, CoffeeBean_72, Commandaria_72, Crete_60, Cruella_72, Cuke_73, Dakiti_60, Dalilpop_75, Damp_57, Darwin_73, Demikore_78, Demosthenes_55, Diabla_63, Djokovic_50, DocB7_048, DrLupo_67, Eggsie_57, Ekhein_59, Emianna_72, Ennea_79, Exiguo_58, FelixAlejandro_64, Flakey_58, Flapper_75, Float294_74, Fowlmouth_74, Foxboro_72, Fury_82, GMA3_58, GMA7_51, GRU1_61, GTE7_50, GTE8_60, Gagieri_70, GalacticEye_57, GalaxyEater_51, Gallia_72, Gibbles_56, Gimesa_67, Gmala1_55, GordDuk1_59, GordTnk2_60, Gorko_58, GourdThymes_59, GrootJr_74, Guillaume_57, GurgleFerb_47, Hail2Pitt_56, Harambe_57, HayZem_62, Hello_57, Hollow_57, HomeFry_79, Hotorobo_59, HubbaBubba_67, IDyn_69, Indlulamithi_65, Jams_57, Jasmine_49, Jellybones_61, Jifall16_71, John316_62, Jormungandr_57, Jumbo_57, Kabluna_75, Kampe_58, Kaseim_57, Katyusha_57, Kelzog_61, KidneyBean_72, Kimchi1738_73, Kurt_72, Kvothe_56, Labelle_76, LadyJasley_54, Lahirium_57, Lidong_57, LilyPad_52, Linetti_59, Lizzo_59, Lollipop1437_76, Luker_58, MacGully_81, Madi_50, Madruga_74, Marietta_72, Maselop_72, Mbo2_52, MerCougar_75, Minos_58, MontyDev_68, Monty_58, MrMiyagi_73, MrWormie_57, Msay19_64, NadineRae_71, NatB6_72, Nellie_47, Neoevie_57, Newt_58, Niagara_57, Nilo_68, Nimi13_57, NosilaM_73, NovumRegina_72, Orchid_57, Outis_73, P1201_75, Papyrus_66, Patience_76, Patio_74, PatrickStar_58, Pemberton_72, PeteyPab_71, Phalaborwa_53, Philon9_57, Phomeo_71, Phroglets_49, PierreThree_58, PigHeaded_56, Pleakley_82, PokyPuppy_58, Poland_64, Polyyuki_72, PotatoChip_72, RedRaider_79, RemRem_60, Reynauld_56, Riparian_68, RobinSparkles_61, Rope_66, RoyalG_59, Sam12_58, Scuba_82, Send513_66, Shelley_57, Shocker_54, Sienna_50, Skysand_75, Sombrero_60, Squibbles_58, Srilaccoli3_54, StarStruck_73, SteveFrench_58, Sticker17_57, Stickynote_71, Sukkupi_71, SuperSonics_79, SuperSulley_74, Suzy_49, Teal_57, Teatealatte_58, Teech_58, Terapin_51, Tillicus_56, Tracker_72, Tredge_57, Trogglehumper_76, Turuncu_75, Vitaenoii_57, Weiss13_66, Wheezy_72, WhoseManz_71, Woes_57, Wojtek_56, Worcestershire_58, Yelo_65, Yndexa_71, Zenon_68, Zion_72,

Summary by start number:

Start 15:
• Found in 1 of 289 (0.3%) of genes in pham
• Manual Annotations of this start: 1 of 262
• Called 100.0% of time when present
• Phage (with cluster) where this start called: LadyJasley_54 (AV),

Start 24:
• Found in 4 of 289 (1.4%) of genes in pham
• Manual Annotations of this start: 4 of 262
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Adat_47 (AV), Brad_47 (AV), GurgleFerb_47 (AV), Nellie_47 (AV),

Start 29:
• Found in 2 of 289 (0.7%) of genes in pham
• Manual Annotations of this start: 1 of 262
• Called 100.0% of time when present
• Phage (with cluster) where this start called: GalaxyEater_51 (AV), PigHeaded_56 (AV),

Start 38:
• Found in 45 of 289 (15.6%) of genes in pham
• Manual Annotations of this start: 37 of 262
• Called 84.4% of time when present
• Phage (with cluster) where this start called: Arti_71 (CR2), Bonum_76 (CR2), Buggaboo_74 (CR2), Commandaria_72 (CR2), Dalilpop_75 (CR1), Emianna_72 (CR2), Ennea_79 (CR3), Flapper_75 (CR1), Float294_74 (CR3), Foxboro_72 (CR2), Fury_82 (CR5), GRU1_61 (CR1), GrootJr_74 (CR2), HomeFry_79 (CR5), HubbaBubba_67 (CR4), IDyn_69 (CR4), Jifall16_71 (CR2), Kabluna_75 (CR2), KidneyBean_72 (CR2), Kurt_72 (CR2), Lollipop1437_76 (CR3), Marietta_72 (CR4), MerCougar_75 (CR2), NadineRae_71 (CR4), NovumRegina_72 (CR2), Outis_73 (CR2), Patio_74 (CR3), Pemberton_72 (CR4), Phomeo_71 (CR2), Pleakley_82 (CR5), RedRaider_79 (CR3), Scuba_82 (CR5), Skysand_75 (CR3), StarStruck_73 (CR2), SuperSulley_74 (CR2), Tracker_72 (CR2), Turuncu_75 (CR1), WhoseManz_71 (CR4),

Start 40:
• Found in 6 of 289 (2.1%) of genes in pham
• Manual Annotations of this start: 6 of 262
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Apiary_72 (CR6), Braxoaddie_72 (CR6), CoffeeBean_72 (CR6), Gagieri_70 (CR6), Maselop_72 (CR6), Polyyuki_72 (CR6),

Start 41:
• Found in 1 of 289 (0.3%) of genes in pham
• Manual Annotations of this start: 1 of 262
• Called 100.0% of time when present
• Phage (with cluster) where this start called: MacGully_81 (CR7),

Start 42:

• Found in 1 of 289 (0.3%) of genes in pham
• Manual Annotations of this start: 1 of 262
• Called 100.0% of time when present
• Phage (with cluster) where this start called: ChewyVIII_83 (singleton),

Start 45:
• Found in 1 of 289 (0.3%) of genes in pham
• Manual Annotations of this start: 1 of 262
• Called 100.0% of time when present
• Phage (with cluster) where this start called: SuperheroCarly_53 (D1),

Start 47:
• Found in 2 of 289 (0.7%) of genes in pham
• Manual Annotations of this start: 1 of 262
• Called 50.0% of time when present
• Phage (with cluster) where this start called: Barnyard_65 (H2),

Start 48:
• Found in 2 of 289 (0.7%) of genes in pham
• Manual Annotations of this start: 1 of 262
• Called 50.0% of time when present
• Phage (with cluster) where this start called: DrLupo_67 (H2),

Start 49:
• Found in 46 of 289 (15.9%) of genes in pham
• Manual Annotations of this start: 13 of 262
• Called 37.0% of time when present
• Phage (with cluster) where this start called: Alyssamiracle_63 (DV), Avian_59 (DV), Genamy16_63 (DV), Gibbin_62 (DV), GretelLyn_60 (DV), Jalebi_59 (DV), Jamemuya19_59 (DV), LuckyLeo_57 (DV), Nettle_61 (DV), NovaSharks_62 (DV), ParvusTarda_59 (DV), Phalaborwa_53 (D1), Pywacket_58 (DV), Rota_56 (DV), Sampudon_60 (DV), Wojtek_56 (DV), Zany_58 (DV),

Start 50:
• Found in 82 of 289 (28.4%) of genes in pham
• Manual Annotations of this start: 61 of 262
• Called 76.8% of time when present
• Phage (with cluster) where this start called: Adjutor_52 (D1), Aikoy_65 (AE), Alephilan_60 (DV), Apeppi_55 (DV), Astralis_60 (DV), Beckerton_60 (H1), BigMama_51 (D1), BirthdayBoy_62 (DV), BobtimousPrime_63 (H1), Butterscotch_52 (D1), Cborch11_63 (H1), Charminar_59 (DV), Chill_55 (D1), Damien_61 (H1), DaviePasture_60 (DV), Delton_54 (D1), DoobyDoo_59 (DV), Erk16_52 (D1), Erutan_60 (DV), Fulcrum_60 (DV), GOATification_60 (DV), Giuseppe_53 (D1), Gumball_52 (D1), Hawkeye_56 (D2), Helpful_56 (D1), KandZ_52 (D1), Konstantine_65 (H1), Lambo_58 (DV), LavAbarElk_60 (DV), Leopard_64 (AE), Lila22_61 (DV), LittleFella_57 (DG2), Megatron06_62 (H1), Mima20_60 (DV), MoiGyank_63 (DV), Mopey_54 (D1), NorManre_63 (DV), Nova_52 (D1), Oaker_60 (H1), Onyinye_65 (AE), OtterstedtS21_60 (DV), PBI1_50 (D1), PLot_53 (D1), Patos_63 (DV), Penelope2018_53 (D1), Phreeze_60 (H1), Prager_53 (D1), Predator_60 (H1), Puissant_59 (H1), Ranch_60 (DV), RazorC_60 (DV), Riduram_59 (DV), Rukungu_63 (DV), Rumi_61 (DV), Sadboi_61 (DV), SirHarley_54 (D1), Stormer_60 (DV), Thoth_53 (D1), Thumb_62 (H1), Troll4_53 (D1), Visconti_54 (D1), WaldoWhy_55 (D1), Yikes_62 (DV),

Start 51:
• Found in 2 of 289 (0.7%) of genes in pham
• Manual Annotations of this start: 1 of 262
• Called 50.0% of time when present
• Phage (with cluster) where this start called: Tillicus_56 (DV),

Start 52:
• Found in 15 of 289 (5.2%) of genes in pham
• Manual Annotations of this start: 10 of 262
• Called 66.7% of time when present
• Phage (with cluster) where this start called: Beyoncage_50 (DG1), BiteSize_50 (DG1), Casserole_47 (AV), Djokovic_50 (DG1), Jasmine_49 (AV), LilyPad_52 (DG1), Madi_50 (DG1), Sienna_50 (DG1), Suzy_49 (DG1), Terapin_51 (DG1),

Start 53:
• Found in 5 of 289 (1.7%) of genes in pham
• Manual Annotations of this start: 3 of 262
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Demikore_78 (U), Labelle_76 (U), Madruga_74 (U), Patience_76 (U), SuperSonics_79 (U),

Start 59:
• Found in 10 of 289 (3.5%) of genes in pham
• Manual Annotations of this start: 8 of 262
• Called 100.0% of time when present
• Phage (with cluster) where this start called: C3PO_72 (EN), Cruella_72 (EN), Darwin_73 (EN), Gallia_72 (singleton), Kimchi1738_73 (EN), P1201_75 (singleton), PeteyPab_71 (EN), PotatoChip_72 (EN), Stickynote_71 (EN), Zion_72 (EN),

Start 60:
• Found in 48 of 289 (16.6%) of genes in pham
• Manual Annotations of this start: 2 of 262
• Called 6.2% of time when present
• Phage (with cluster) where this start called: AmandaPanda_66 (H2), DumpTruck_58 (DV), Xenia2_58 (DV),

Start 70:
• Found in 12 of 289 (4.2%) of genes in pham
• No Manual Annotations of this start.
• Called 8.3% of time when present
• Phage (with cluster) where this start called: Nish23_63 (H1),

Start 73:
• Found in 13 of 289 (4.5%) of genes in pham
• Manual Annotations of this start: 2 of 262
• Called 23.1% of time when present
• Phage (with cluster) where this start called: GTE8_60 (CR2), NatB6_72 (CR2), Wheezy_72 (CR2),

Start 78:
• Found in 14 of 289 (4.8%) of genes in pham
• Manual Annotations of this start: 1 of 262

• Called 7.1% of time when present
• Phage (with cluster) where this start called: NosilaM_73 (CR2),

Start 84:
• Found in 6 of 289 (2.1%) of genes in pham
• Manual Annotations of this start: 3 of 262
• Called 50.0% of time when present
• Phage (with cluster) where this start called: Cuke_73 (AC), Fowlmouth_74 (AC), MrMiyagi_73 (AC),

Start 89:
• Found in 1 of 289 (0.3%) of genes in pham
• Manual Annotations of this start: 1 of 262
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Indlulamithi_65 (AC),

Start 96:
• Found in 21 of 289 (7.3%) of genes in pham
• Manual Annotations of this start: 3 of 262
• Called 14.3% of time when present
• Phage (with cluster) where this start called: BiPauneto_74 (CR4), Sukkupi_71 (CR4), Yndexa_71 (CR4),

Start 104:
• Found in 1 of 289 (0.3%) of genes in pham
• Manual Annotations of this start: 1 of 262
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Phroglets_49 (AV),

Start 111:
• Found in 12 of 289 (4.2%) of genes in pham
• Manual Annotations of this start: 9 of 262
• Called 75.0% of time when present
• Phage (with cluster) where this start called: Benczkowski14_57 (CS4), Hollow_57 (CS4), Katyusha_57 (CS4), Niagara_57 (CS4), Philon9_57 (CS4), Teatealatte_58 (CS4), Teech_58 (CS4), Tredge_57 (CS4), Vitaenoii_57 (CS4),

Start 115:
• Found in 12 of 289 (4.2%) of genes in pham
• Manual Annotations of this start: 2 of 262
• Called 16.7% of time when present
• Phage (with cluster) where this start called: Demosthenes_55 (CS4), Kvothe_56 (CS4),

Start 122:
• Found in 5 of 289 (1.7%) of genes in pham
• Manual Annotations of this start: 3 of 262
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Amore2_62 (CS1), Austin_61 (CS1), GMA7_51 (CS1), GTE7_50 (CS1), HayZem_62 (CS1),

Start 150:
• Found in 13 of 289 (4.5%) of genes in pham

• Manual Annotations of this start: 10 of 262
• Called 84.6% of time when present
• Phage (with cluster) where this start called: Candle_64 (R), Gimesa_67 (R), MontyDev_68 (R), Nilo_68 (R), Papyrus_66 (R), Riparian_68 (R), Rope_66 (R), Send513_66 (R), Weiss13_66 (R), Yelo_65 (R), Zenon_68 (R),

Start 153:
• Found in 5 of 289 (1.7%) of genes in pham
• Manual Annotations of this start: 1 of 262
• Called 20.0% of time when present
• Phage (with cluster) where this start called: ASerpRocky_55 (CS4),

Start 160:
• Found in 66 of 289 (22.8%) of genes in pham
• Manual Annotations of this start: 3 of 262
• Called 7.6% of time when present
• Phage (with cluster) where this start called: BillyBobJr_65 (CS2), Charianelly_57 (CS3), CinnamonToast_65 (CS2), Eggsie_57 (CS2), Woes_57 (CS3),

Start 168:
• Found in 71 of 289 (24.6%) of genes in pham
• Manual Annotations of this start: 1 of 262
• Called 1.4% of time when present
• Phage (with cluster) where this start called: Luker_58 (CS3),

Start 169:
• Found in 41 of 289 (14.2%) of genes in pham
• Manual Annotations of this start: 29 of 262
• Called 73.2% of time when present
• Phage (with cluster) where this start called: Adgers_62 (CS2), Barbochs_57 (CS2), Beaver_62 (CS2), BigShaq_59 (CS2), BirksAndSocks_64 (CS2), Boneham_63 (CS2), Breezic_59 (CS2), Butterball_62 (CS2), CathyBurgh_59 (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), Kelzog_61 (CS2), Lizzo_59 (CS2), Monty_58 (CS2), Msay19_64 (CS2), Poland_64 (CS2), RemRem_60 (CS2), RoyalG_59 (CS2), Sam12_58 (CS2), Sombrero_60 (CS2), Squibbles_58 (CS2), SteveFrench_58 (CS2), Worcestershire_58 (CS2),

Start 170:
• Found in 4 of 289 (1.4%) of genes in pham
• Manual Annotations of this start: 2 of 262
• Called 50.0% of time when present
• Phage (with cluster) where this start called: Shocker_54 (singleton), Trogglehumper_76 (singleton),

Start 175:
• Found in 5 of 289 (1.7%) of genes in pham
• No Manual Annotations of this start.
• Called 60.0% of time when present
• Phage (with cluster) where this start called: Gmala1_55 (DF1), GordDuk1_59 (DF1), GordTnk2_60 (DF1),

Start 176:
• Found in 1 of 289 (0.3%) of genes in pham
• Manual Annotations of this start: 1 of 262
• Called 100.0% of time when present
• Phage (with cluster) where this start called: PokyPuppy_58 (CS2),

Start 180:
• Found in 5 of 289 (1.7%) of genes in pham
• Manual Annotations of this start: 5 of 262
• 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 181:
• Found in 8 of 289 (2.8%) of genes in pham
• Manual Annotations of this start: 4 of 262
• Called 87.5% of time when present
• Phage (with cluster) where this start called: Camerico_63 (DF4), DocB7_048 (singleton), GMA3_58 (DF2), Jumbo_57 (DF3), Mbo2_52 (singleton), Reynauld_56 (CH), Srilaccoli3_54 (CH),

Start 198:
• Found in 72 of 289 (24.9%) of genes in pham
• Manual Annotations of this start: 29 of 262
• Called 40.3% of time when present
• Phage (with cluster) where this start called: Anamika_57 (CS3), BenoitCattle_59 (CS2), Berries_57 (CS3), Bianmat_57 (CS3), Chelms_59 (CS2), Crete_60 (CS2), Dakiti_60 (CS2), Damp_57 (CS3), Diabla_63 (CS2), GalacticEye_57 (CS3), Guillaume_57 (CS3), Hail2Pitt_56 (CS3), Harambe_57 (CS3), Hello_57 (CS3), Jams_57 (CS3), Jormungandr_57 (CS3), Kaseim_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),

Summary by clusters:

There are 31 clusters represented in this pham: singleton, EN, DV, DF4, DF1, DF3, DF2, CS4, CS1, CS3, CS2, AC, CH, AE, DG2, R, U, AV, CR2, CR3, CR1, CR6, CR7, CR4, CR5, H2, CX, H1, DG1, D2, D1,

Info for manual annotations of cluster AC:
•Start number 84 was manually annotated 3 times for cluster AC.
•Start number 89 was manually annotated 1 time for cluster AC.

Info for manual annotations of cluster AE:
•Start number 50 was manually annotated 3 times for cluster AE.

Info for manual annotations of cluster AV:
•Start number 15 was manually annotated 1 time for cluster AV.
•Start number 24 was manually annotated 4 times for cluster AV.
•Start number 29 was manually annotated 1 time for cluster AV.
•Start number 52 was manually annotated 2 times for cluster AV.
•Start number 104 was manually annotated 1 time for cluster AV.

Info for manual annotations of cluster CH:
•Start number 181 was manually annotated 2 times for cluster CH.

Info for manual annotations of cluster CR1:
•Start number 38 was manually annotated 3 times for cluster CR1.

Info for manual annotations of cluster CR2:
•Start number 38 was manually annotated 18 times for cluster CR2.
•Start number 73 was manually annotated 2 times for cluster CR2.
•Start number 78 was manually annotated 1 time for cluster CR2.

Info for manual annotations of cluster CR3:
•Start number 38 was manually annotated 6 times for cluster CR3.

Info for manual annotations of cluster CR4:
•Start number 38 was manually annotated 6 times for cluster CR4.
•Start number 96 was manually annotated 3 times for cluster CR4.

Info for manual annotations of cluster CR5:
•Start number 38 was manually annotated 4 times for cluster CR5.

Info for manual annotations of cluster CR6:
•Start number 40 was manually annotated 6 times for cluster CR6.

Info for manual annotations of cluster CR7:
•Start number 41 was manually annotated 1 time for cluster CR7.

Info for manual annotations of cluster CS1:
•Start number 122 was manually annotated 3 times for cluster CS1.

Info for manual annotations of cluster CS2:
•Start number 160 was manually annotated 1 time for cluster CS2.
•Start number 169 was manually annotated 29 times for cluster CS2.
•Start number 176 was manually annotated 1 time for cluster CS2.
•Start number 198 was manually annotated 7 times for cluster CS2.

Info for manual annotations of cluster CS3:
•Start number 160 was manually annotated 2 times for cluster CS3.
•Start number 168 was manually annotated 1 time for cluster CS3.
•Start number 198 was manually annotated 22 times for cluster CS3.

Info for manual annotations of cluster CS4:
•Start number 111 was manually annotated 9 times for cluster CS4.
•Start number 115 was manually annotated 2 times for cluster CS4.
•Start number 153 was manually annotated 1 time for cluster CS4.

Info for manual annotations of cluster CX:
•Start number 180 was manually annotated 5 times for cluster CX.

Info for manual annotations of cluster D1:
•Start number 45 was manually annotated 1 time for cluster D1.
•Start number 50 was manually annotated 21 times for cluster D1.

Info for manual annotations of cluster D2:
•Start number 50 was manually annotated 1 time for cluster D2.

Info for manual annotations of cluster DF3:
•Start number 181 was manually annotated 1 time for cluster DF3.

Info for manual annotations of cluster DF4:
•Start number 181 was manually annotated 1 time for cluster DF4.

Info for manual annotations of cluster DG1:
•Start number 52 was manually annotated 8 times for cluster DG1.

Info for manual annotations of cluster DG2:
•Start number 50 was manually annotated 1 time for cluster DG2.

Info for manual annotations of cluster DV:
•Start number 49 was manually annotated 13 times for cluster DV.
•Start number 50 was manually annotated 24 times for cluster DV.
•Start number 51 was manually annotated 1 time for cluster DV.
•Start number 60 was manually annotated 2 times for cluster DV.

Info for manual annotations of cluster EN:
•Start number 59 was manually annotated 8 times for cluster EN.

Info for manual annotations of cluster H1:
•Start number 50 was manually annotated 11 times for cluster H1.

Info for manual annotations of cluster H2:
•Start number 47 was manually annotated 1 time for cluster H2.
•Start number 48 was manually annotated 1 time for cluster H2.

Info for manual annotations of cluster R:
•Start number 150 was manually annotated 10 times for cluster R.

Info for manual annotations of cluster U:
•Start number 53 was manually annotated 3 times for cluster U.

Gene Information:

Gene: ASerpRocky_55 Start: 52672, Stop: 51098, Start Num: 153
Candidate Starts for ASerpRocky_55:
(Start: 111 @52804 has 9 MA's), (Start: 115 @52792 has 2 MA's), (145, 52693), (Start: 153 @52672 has 1 MA's), (171, 52606), (199, 52507), (208, 52471), (213, 52447), (217, 52438), (219, 52429), (236, 52381), (248, 52357), (270, 52315), (275, 52300), (294, 52225), (314, 52165), (315, 52162), (328, 52096), (330, 52093), (335, 52057), (336, 52054), (339, 52027), (342, 52015), (348, 51967), (358, 51934), (364, 51910), (368, 51886), (372, 51862), (393, 51796), (415, 51697), (446, 51598), (455, 51565), (456, 51562), (499, 51445), (500, 51442), (511, 51385), (514, 51367), (534, 51250), (535, 51247), (538, 51235), (567, 51136), (576, 51115),

Gene: Adat_47 Start: 40998, Stop: 38749, Start Num: 24
Candidate Starts for Adat_47:
(Start: 24 @40998 has 4 MA's), (37, 40965), (57, 40881), (107, 40692), (112, 40680), (141, 40590), (152, 40563), (158, 40542), (162, 40515), (164, 40512), (166, 40500), (177, 40461), (208, 40323), (226, 40260), (233, 40245), (236, 40230), (245, 40212), (251, 40200), (256, 40188), (264, 40167), (277, 40119), (278, 40116), (283, 40092), (294, 40050), (296, 40044), (307, 39954), (310, 39930), (334, 39807), (341, 39753), (365, 39642), (368, 39621), (370, 39606), (380, 39546), (393, 39471), (394, 39468), (431, 39303), (463, 39183), (516, 38985), (518, 38979), (530, 38919), (542, 38856), (551, 38826), (557, 38802), (558, 38796),

Gene: Adgers_62 Start: 52192, Stop: 50660, Start Num: 169
Candidate Starts for Adgers_62:
(95, 52447), (107, 52396), (139, 52291), (151, 52261), (Start: 160 @52228 has 3 MA's), (163, 52219), (Start: 169 @52192 has 29 MA's), (208, 52024), (219, 51982), (225, 51964), (236, 51934), (242, 51922), (248, 51910), (252, 51904), (261, 51883), (316, 51715), (334, 51628), (335, 51613), (337, 51601), (342, 51571), (368, 51442), (375, 51400), (378, 51382), (379, 51379), (389, 51370), (393, 51352), (415, 51265), (456, 51130), (459, 51115), (464, 51094), (499, 51013), (500, 51010), (511, 50953), (512, 50947), (514, 50935), (525, 50884), (529, 50860), (534, 50821), (537, 50809), (538, 50806), (560, 50713), (567, 50698),

Gene: Adjutor_52 Start: 39669, Stop: 41612, Start Num: 50
Candidate Starts for Adjutor_52:
(Start: 50 @39669 has 61 MA's), (63, 39696), (83, 39768), (97, 39822), (114, 39882), (118, 39900), (119, 39909), (137, 39960), (154, 40002), (Start: 168 @40038 has 1 MA's), (189, 40125), (209, 40218), (211, 40233), (219, 40254), (267, 40356), (278, 40389), (285, 40413), (312, 40473), (327, 40560), (340, 40635), (356, 40725), (368, 40776), (369, 40779), (388, 40869), (392, 40887), (400, 40920), (414, 40974), (418, 40986), (421, 41004), (442, 41067), (465, 41151), (498, 41268), (504, 41316), (517, 41379), (532, 41463),

Gene: Aikoy_65 Start: 45786, Stop: 47714, Start Num: 50
Candidate Starts for Aikoy_65:
(Start: 50 @45786 has 61 MA's), (62, 45807), (69, 45837), (Start: 96 @45936 has 3 MA's), (114, 45999), (132, 46071), (138, 46080), (158, 46128), (211, 46344), (219, 46365), (228, 46386), (230, 46389), (236, 46401), (250, 46428), (290, 46551), (312, 46587), (322, 46659), (325, 46668), (334, 46701), (342, 46758), (344, 46770), (356, 46839), (359, 46848), (364, 46866), (368, 46890), (390, 46986), (392, 46998), (400, 47031), (413, 47073), (424, 47136), (461, 47241), (513, 47457), (516, 47481), (517, 47484), (527, 47526), (531, 47556), (536, 47580), (573, 47697),

Gene: Alephilan_60 Start: 40725, Stop: 42638, Start Num: 50
Candidate Starts for Alephilan_60:
(20, 40599), (22, 40608), (23, 40620), (34, 40653), (Start: 49 @40722 has 13 MA's), (Start: 50 @40725 has 61 MA's), (Start: 60 @40737 has 2 MA's), (72, 40785), (82, 40818), (126, 40977), (132, 41004), (138, 41013), (Start: 168 @41085 has 1 MA's), (196, 41202), (197, 41205), (210, 41268), (219, 41295), (246, 41358), (258, 41385), (310, 41514), (315, 41538), (321, 41580), (332, 41628), (335, 41649), (338, 41670), (345, 41727), (349, 41745), (356, 41781), (366, 41823), (376, 41883), (400, 41979), (401, 41982), (472, 42210), (498, 42300), (504, 42336), (506, 42342), (516, 42396), (526, 42435), (545, 42537), (550, 42552), (555, 42573),

Gene: Alyssamiracle_63 Start: 39828, Stop: 41744, Start Num: 49
Candidate Starts for Alyssamiracle_63:
(Start: 49 @39828 has 13 MA's), (Start: 50 @39831 has 61 MA's), (Start: 60 @39843 has 2 MA's), (72, 39891), (82, 39924), (126, 40083), (132, 40110), (138, 40119), (Start: 168 @40191 has 1 MA's), (197,

40311), (210, 40374), (246, 40464), (258, 40491), (310, 40620), (315, 40644), (321, 40686), (322, 40698), (327, 40713), (332, 40734), (335, 40755), (338, 40776), (345, 40833), (349, 40851), (356, 40887), (366, 40929), (376, 40989), (400, 41085), (401, 41088), (457, 41265), (472, 41316), (498, 41406), (504, 41442), (506, 41448), (516, 41502), (526, 41541), (545, 41643), (550, 41658), (555, 41679),

Gene: AmandaPanda_66 Start: 46318, Stop: 48255, Start Num: 60
Candidate Starts for AmandaPanda_66:
(17, 46123), (26, 46198), (27, 46204), (Start: 48 @46291 has 1 MA's), (56, 46312), (Start: 60 @46318 has 2 MA's), (62, 46324), (70, 46357), (76, 46390), (93, 46438), (98, 46459), (103, 46486), (112, 46510), (129, 46573), (135, 46591), (143, 46609), (148, 46621), (158, 46654), (172, 46696), (178, 46717), (179, 46720), (182, 46738), (190, 46771), (191, 46777), (197, 46801), (Start: 198 @46804 has 29 MA's), (217, 46876), (299, 47095), (310, 47110), (322, 47188), (338, 47266), (349, 47341), (354, 47374), (384, 47536), (390, 47542), (418, 47668), (419, 47671), (437, 47707), (439, 47713), (467, 47797), (475, 47830), (503, 47941), (504, 47944), (507, 47953), (514, 47986), (517, 48007), (527, 48049), (539, 48112), (544, 48139), (571, 48223),

Gene: Amore2_62 Start: 52713, Stop: 51082, Start Num: 122
Candidate Starts for Amore2_62:
(Start: 122 @52713 has 3 MA's), (126, 52701), (147, 52650), (149, 52644), (167, 52587), (208, 52446), (219, 52404), (223, 52392), (236, 52356), (238, 52353), (252, 52326), (270, 52290), (273, 52278), (278, 52263), (313, 52155), (334, 52050), (335, 52035), (358, 51912), (368, 51864), (372, 51840), (375, 51822), (393, 51774), (405, 51723), (415, 51687), (420, 51669), (456, 51552), (481, 51501), (493, 51459), (504, 51399), (514, 51357), (525, 51306), (529, 51282), (567, 51120), (576, 51099),

Gene: Anamika_57 Start: 52887, Stop: 51475, Start Num: 198
Candidate Starts for Anamika_57:
(95, 53235), (128, 53106), (159, 53019), (Start: 160 @53016 has 3 MA's), (Start: 198 @52887 has 29 MA's), (208, 52842), (236, 52752), (238, 52749), (240, 52743), (252, 52722), (278, 52659), (313, 52551), (316, 52533), (334, 52446), (335, 52431), (342, 52389), (358, 52308), (368, 52260), (375, 52218), (378, 52200), (379, 52197), (393, 52170), (405, 52119), (415, 52083), (425, 52032), (456, 51948), (461, 51927), (511, 51771), (512, 51765), (514, 51753), (537, 51627), (567, 51513),

Gene: Apeppi_55 Start: 40047, Stop: 41966, Start Num: 50
Candidate Starts for Apeppi_55:
(21, 39927), (25, 39948), (32, 39969), (43, 39999), (46, 40032), (Start: 49 @40044 has 13 MA's), (Start: 50 @40047 has 61 MA's), (Start: 60 @40062 has 2 MA's), (64, 40077), (72, 40110), (82, 40143), (85, 40146), (Start: 96 @40194 has 3 MA's), (101, 40212), (126, 40302), (130, 40320), (132, 40329), (138, 40338), (Start: 168 @40410 has 1 MA's), (197, 40530), (Start: 198 @40533 has 29 MA's), (210, 40593), (217, 40611), (246, 40683), (258, 40710), (312, 40845), (315, 40863), (321, 40905), (325, 40926), (327, 40932), (335, 40974), (338, 40995), (342, 41016), (345, 41052), (366, 41151), (367, 41160), (376, 41211), (400, 41307), (401, 41310), (439, 41421), (457, 41487), (465, 41511), (472, 41538), (514, 41706), (516, 41724), (522, 41748), (526, 41763), (527, 41769), (532, 41811), (536, 41826), (545, 41865), (550, 41880), (555, 41901), (576, 41958),

Gene: Apiary_72 Start: 53146, Stop: 51110, Start Num: 40
Candidate Starts for Apiary_72:
(12, 53314), (Start: 40 @53146 has 6 MA's), (Start: 52 @53080 has 10 MA's), (67, 53038), (157, 52753), (178, 52696), (189, 52645), (193, 52630), (211, 52540), (216, 52528), (253, 52435), (281, 52363), (312, 52294), (322, 52222), (335, 52165), (368, 51985), (372, 51961), (385, 51898), (392, 51862), (414, 51775), (449, 51643), (459, 51604), (460, 51601), (467, 51556), (504, 51409), (517, 51346), (527, 51304), (532, 51265), (539, 51241),

Gene: Arti_71 Start: 55496, Stop: 53430, Start Num: 38
Candidate Starts for Arti_71:
(8, 55700), (9, 55688), (11, 55670), (Start: 38 @55496 has 37 MA's), (Start: 73 @55358 has 2 MA's), (77, 55334), (141, 55130), (157, 55085), (189, 54977), (215, 54863), (216, 54860), (253, 54770), (254, 54767), (279, 54707), (321, 54569), (323, 54551), (331, 54527), (349, 54404), (368, 54299), (392, 54173), (405, 54119), (440, 53993), (442, 53984), (448, 53960), (465, 53888), (467, 53882), (474, 53852), (491, 53795), (504, 53735), (517, 53672), (532, 53591),

Gene: Astralis_60 Start: 39409, Stop: 41322, Start Num: 50
Candidate Starts for Astralis_60:
(Start: 49 @39406 has 13 MA's), (Start: 50 @39409 has 61 MA's), (Start: 60 @39421 has 2 MA's), (72, 39469), (82, 39502), (126, 39661), (132, 39688), (138, 39697), (Start: 168 @39769 has 1 MA's), (197, 39889), (210, 39952), (246, 40042), (258, 40069), (310, 40198), (315, 40222), (321, 40264), (322, 40276), (327, 40291), (332, 40312), (335, 40333), (338, 40354), (345, 40411), (349, 40429), (356, 40465), (366, 40507), (376, 40567), (400, 40663), (401, 40666), (457, 40843), (472, 40894), (498, 40984), (504, 41020), (506, 41026), (516, 41080), (526, 41119), (545, 41221), (550, 41236), (555, 41257),

Gene: Austin_61 Start: 52711, Stop: 51080, Start Num: 122
Candidate Starts for Austin_61:
(Start: 122 @52711 has 3 MA's), (126, 52699), (147, 52648), (149, 52642), (167, 52585), (208, 52444), (219, 52402), (223, 52390), (236, 52354), (238, 52351), (252, 52324), (270, 52288), (273, 52276), (278, 52261), (313, 52153), (334, 52048), (335, 52033), (358, 51910), (368, 51862), (372, 51838), (375, 51820), (393, 51772), (405, 51721), (415, 51685), (420, 51667), (456, 51550), (481, 51499), (493, 51457), (504, 51397), (514, 51355), (525, 51304), (529, 51280), (567, 51118), (576, 51097),

Gene: Avian_59 Start: 39556, Stop: 41472, Start Num: 49
Candidate Starts for Avian_59:
(Start: 49 @39556 has 13 MA's), (Start: 50 @39559 has 61 MA's), (Start: 60 @39571 has 2 MA's), (72, 39619), (82, 39652), (126, 39811), (132, 39838), (138, 39847), (Start: 168 @39919 has 1 MA's), (197, 40039), (210, 40102), (246, 40192), (258, 40219), (310, 40348), (315, 40372), (321, 40414), (322, 40426), (327, 40441), (332, 40462), (335, 40483), (338, 40504), (345, 40561), (349, 40579), (356, 40615), (366, 40657), (376, 40717), (400, 40813), (401, 40816), (457, 40993), (472, 41044), (498, 41134), (504, 41170), (506, 41176), (516, 41230), (526, 41269), (545, 41371), (550, 41386), (555, 41407),

Gene: Barbochs_57 Start: 51736, Stop: 50204, Start Num: 169
Candidate Starts for Barbochs_57:
(95, 51991), (107, 51940), (120, 51889), (139, 51835), (151, 51805), (Start: 160 @51772 has 3 MA's), (163, 51763), (Start: 169 @51736 has 29 MA's), (208, 51568), (219, 51526), (236, 51478), (242, 51466), (248, 51454), (252, 51448), (261, 51427), (273, 51400), (316, 51259), (334, 51172), (335, 51157), (337, 51145), (342, 51115), (349, 51064), (357, 51037), (368, 50986), (372, 50962), (375, 50944), (378, 50926), (379, 50923), (393, 50896), (403, 50854), (415, 50809), (456, 50674), (459, 50659), (464, 50638), (493, 50581), (499, 50557), (511, 50497), (512, 50491), (513, 50485), (514, 50479), (525, 50428), (529, 50404), (534, 50365), (537, 50353), (538, 50350), (560, 50257), (567, 50242), (576, 50221),

Gene: Barnyard_65 Start: 45144, Stop: 47105, Start Num: 47
Candidate Starts for Barnyard_65:
(Start: 47 @45144 has 1 MA's), (56, 45171), (Start: 60 @45177 has 2 MA's), (62, 45183), (76, 45249), (90, 45282), (93, 45297), (Start: 96 @45312 has 3 MA's), (98, 45318), (103, 45345), (116, 45387), (132, 45447), (143, 45468), (156, 45504), (158, 45513), (178, 45576), (182, 45597), (184, 45615), (190, 45630), (191, 45636), (197, 45660), (217, 45735), (218, 45741), (287, 45924), (289, 45936),

(299, 45954), (310, 45969), (322, 46047), (349, 46200), (354, 46233), (379, 46368), (384, 46395), (390, 46401), (391, 46407), (404, 46461), (418, 46527), (419, 46530), (439, 46572), (467, 46656), (475, 46689), (503, 46800), (504, 46803), (505, 46806), (507, 46812), (514, 46845), (517, 46866), (518, 46869), (527, 46908), (536, 46962), (544, 46998), (547, 47007), (562, 47064), (571, 47082),

Gene: Beaver_62 Start: 53506, Stop: 51974, Start Num: 169
Candidate Starts for Beaver_62:
(95, 53761), (107, 53710), (120, 53659), (139, 53605), (151, 53575), (Start: 160 @53542 has 3 MA's), (163, 53533), (Start: 169 @53506 has 29 MA's), (208, 53338), (219, 53296), (236, 53248), (242, 53236), (248, 53224), (252, 53218), (261, 53197), (273, 53170), (316, 53029), (334, 52942), (335, 52927), (337, 52915), (342, 52885), (349, 52834), (357, 52807), (368, 52756), (375, 52714), (378, 52696), (379, 52693), (393, 52666), (403, 52624), (415, 52579), (420, 52561), (456, 52444), (459, 52429), (464, 52408), (493, 52351), (499, 52327), (511, 52267), (512, 52261), (513, 52255), (514, 52249), (525, 52198), (529, 52174), (534, 52135), (537, 52123), (560, 52027), (567, 52012), (576, 51991),

Gene: Beckerton_60 Start: 46572, Stop: 48629, Start Num: 50
Candidate Starts for Beckerton_60:
(Start: 50 @46572 has 61 MA's), (70, 46632), (71, 46635), (Start: 96 @46728 has 3 MA's), (100, 46740), (103, 46761), (143, 46884), (144, 46887), (148, 46896), (158, 46929), (161, 46950), (172, 46998), (182, 47040), (197, 47103), (201, 47124), (203, 47130), (218, 47184), (287, 47370), (289, 47382), (299, 47400), (310, 47415), (312, 47421), (368, 47739), (369, 47742), (376, 47787), (390, 47838), (392, 47850), (414, 47940), (418, 47952), (423, 47985), (436, 48009), (437, 48018), (467, 48108), (475, 48141), (503, 48252), (504, 48255), (505, 48258), (506, 48261), (514, 48297), (516, 48315), (530, 48381), (532, 48399), (578, 48576),

Gene: Benczkowski14_57 Start: 53319, Stop: 51616, Start Num: 111
Candidate Starts for Benczkowski14_57:
(Start: 111 @53319 has 9 MA's), (Start: 115 @53307 has 2 MA's), (171, 53124), (Start: 198 @53034 has 29 MA's), (199, 53025), (208, 52989), (213, 52965), (217, 52956), (219, 52947), (236, 52899), (248, 52875), (278, 52803), (279, 52800), (284, 52782), (294, 52743), (328, 52614), (335, 52575), (336, 52572), (338, 52554), (339, 52545), (342, 52533), (348, 52485), (358, 52452), (368, 52404), (372, 52380), (393, 52314), (415, 52215), (446, 52116), (448, 52107), (455, 52083), (456, 52080), (493, 51987), (499, 51963), (500, 51960), (511, 51903), (514, 51885), (534, 51768), (535, 51765), (538, 51753), (567, 51654), (576, 51633),

Gene: BenoitCattle_59 Start: 52020, Stop: 50611, Start Num: 198
Candidate Starts for BenoitCattle_59:
(95, 52398), (107, 52347), (120, 52296), (139, 52242), (151, 52212), (Start: 160 @52179 has 3 MA's), (163, 52170), (Start: 169 @52143 has 29 MA's), (Start: 198 @52020 has 29 MA's), (208, 51975), (219, 51933), (236, 51885), (238, 51882), (240, 51876), (242, 51873), (248, 51861), (252, 51855), (273, 51807), (275, 51804), (313, 51684), (316, 51666), (328, 51603), (334, 51579), (335, 51564), (342, 51522), (349, 51471), (368, 51393), (378, 51333), (379, 51330), (389, 51321), (393, 51303), (403, 51261), (415, 51216), (456, 51081), (459, 51066), (464, 51045), (499, 50964), (500, 50961), (511, 50904), (512, 50898), (514, 50886), (525, 50835), (529, 50811), (534, 50772), (537, 50760), (560, 50664), (567, 50649),

Gene: Berries_57 Start: 52859, Stop: 51447, Start Num: 198
Candidate Starts for Berries_57:
(95, 53207), (128, 53078), (Start: 160 @52988 has 3 MA's), (Start: 198 @52859 has 29 MA's), (208, 52814), (236, 52724), (238, 52721), (240, 52715), (252, 52694), (278, 52631), (313, 52523), (316, 52505), (334, 52418), (335, 52403), (342, 52361), (358, 52280), (368, 52232), (375, 52190), (378, 52172), (379, 52169), (393, 52142), (405, 52091), (415, 52055), (425, 52004), (456, 51920), (461,

51899), (511, 51743), (512, 51737), (514, 51725), (537, 51599), (567, 51485),

Gene: Beyoncage_50 Start: 36615, Stop: 38669, Start Num: 52
Candidate Starts for Beyoncage_50:
(Start: 52 @36615 has 10 MA's), (64, 36639), (85, 36702), (105, 36786), (116, 36828), (187, 37050), (197, 37086), (216, 37161), (229, 37200), (252, 37242), (261, 37260), (267, 37281), (271, 37293), (289, 37353), (294, 37368), (310, 37386), (322, 37464), (327, 37479), (328, 37482), (335, 37521), (338, 37542), (355, 37644), (368, 37701), (371, 37722), (372, 37725), (374, 37737), (388, 37785), (390, 37791), (401, 37839), (408, 37872), (415, 37896), (420, 37914), (424, 37944), (433, 38067), (436, 38100), (438, 38112), (442, 38127), (452, 38166), (465, 38211), (472, 38238), (495, 38322), (509, 38385), (516, 38427), (519, 38436), (521, 38445), (530, 38493), (531, 38502), (532, 38514), (536, 38529), (546, 38571),

Gene: BiPauneto_74 Start: 54628, Stop: 52772, Start Num: 96
Candidate Starts for BiPauneto_74:
(9, 55045), (11, 55027), (18, 54952), (Start: 38 @54853 has 37 MA's), (Start: 96 @54628 has 3 MA's), (189, 54334), (197, 54301), (201, 54280), (212, 54226), (215, 54220), (216, 54217), (253, 54127), (254, 54124), (279, 54064), (323, 53908), (349, 53761), (368, 53653), (372, 53629), (392, 53527), (405, 53473), (408, 53458), (426, 53377), (442, 53338), (458, 53275), (465, 53236), (467, 53230), (474, 53200), (504, 53083), (517, 53020), (530, 52957), (532, 52939), (553, 52855),

Gene: Bianmat_57 Start: 52899, Stop: 51487, Start Num: 198
Candidate Starts for Bianmat_57:
(95, 53247), (128, 53118), (Start: 160 @53028 has 3 MA's), (Start: 198 @52899 has 29 MA's), (208, 52854), (236, 52764), (238, 52761), (240, 52755), (252, 52734), (278, 52671), (301, 52593), (313, 52563), (316, 52545), (334, 52458), (335, 52443), (342, 52401), (358, 52320), (368, 52272), (375, 52230), (378, 52212), (379, 52209), (393, 52182), (405, 52131), (415, 52095), (425, 52044), (456, 51960), (461, 51939), (511, 51783), (512, 51777), (514, 51765), (537, 51639), (567, 51525),

Gene: BigMama_51 Start: 39745, Stop: 41688, Start Num: 50
Candidate Starts for BigMama_51:
(Start: 50 @39745 has 61 MA's), (63, 39772), (83, 39844), (97, 39898), (114, 39958), (118, 39976), (119, 39985), (137, 40036), (154, 40078), (Start: 168 @40114 has 1 MA's), (189, 40201), (209, 40294), (211, 40309), (219, 40330), (267, 40432), (278, 40465), (285, 40489), (312, 40549), (327, 40636), (340, 40711), (356, 40801), (368, 40852), (369, 40855), (388, 40945), (392, 40963), (400, 40996), (414, 41050), (418, 41062), (421, 41080), (442, 41143), (465, 41227), (498, 41344), (504, 41392), (517, 41455), (532, 41539),

Gene: BigShaq_59 Start: 52148, Stop: 50616, Start Num: 169
Candidate Starts for BigShaq_59:
(95, 52403), (107, 52352), (120, 52301), (139, 52247), (151, 52217), (Start: 160 @52184 has 3 MA's), (163, 52175), (Start: 169 @52148 has 29 MA's), (Start: 198 @52025 has 29 MA's), (208, 51980), (219, 51938), (236, 51890), (238, 51887), (240, 51881), (242, 51878), (248, 51866), (252, 51860), (270, 51824), (273, 51812), (275, 51809), (313, 51689), (316, 51671), (334, 51584), (335, 51569), (342, 51527), (349, 51476), (357, 51449), (368, 51398), (378, 51338), (379, 51335), (389, 51326), (393, 51308), (403, 51266), (415, 51221), (456, 51086), (459, 51071), (464, 51050), (499, 50969), (500, 50966), (511, 50909), (512, 50903), (514, 50891), (525, 50840), (528, 50825), (529, 50816), (534, 50777), (537, 50765), (560, 50669), (567, 50654),

Gene: BillyBobJr_65 Start: 53852, Stop: 52284, Start Num: 160
Candidate Starts for BillyBobJr_65:
(95, 54071), (107, 54020), (128, 53942), (139, 53915), (151, 53885), (Start: 160 @53852 has 3 MA's), (163, 53843), (Start: 169 @53816 has 29 MA's), (208, 53648), (219, 53606), (225, 53588), (236,

53558), (242, 53546), (252, 53528), (273, 53480), (316, 53339), (334, 53252), (335, 53237), (337, 53225), (342, 53195), (349, 53144), (368, 53066), (372, 53042), (375, 53024), (378, 53006), (379, 53003), (389, 52994), (393, 52976), (415, 52889), (456, 52754), (459, 52739), (464, 52718), (493, 52661), (499, 52637), (500, 52634), (511, 52577), (512, 52571), (514, 52559), (525, 52508), (529, 52484), (534, 52445), (537, 52433), (538, 52430), (560, 52337), (567, 52322), (576, 52301),

Gene: BirksAndSocks_64 Start: 53856, Stop: 52324, Start Num: 169
Candidate Starts for BirksAndSocks_64:
(95, 54111), (107, 54060), (139, 53955), (151, 53925), (Start: 160 @53892 has 3 MA's), (163, 53883), (Start: 169 @53856 has 29 MA's), (208, 53688), (219, 53646), (225, 53628), (236, 53598), (242, 53586), (248, 53574), (252, 53568), (261, 53547), (316, 53379), (334, 53292), (335, 53277), (337, 53265), (342, 53235), (368, 53106), (372, 53082), (375, 53064), (378, 53046), (379, 53043), (389, 53034), (393, 53016), (415, 52929), (456, 52794), (459, 52779), (464, 52758), (499, 52677), (500, 52674), (511, 52617), (512, 52611), (514, 52599), (525, 52548), (529, 52524), (534, 52485), (537, 52473), (538, 52470), (560, 52377), (567, 52362),

Gene: BirthdayBoy_62 Start: 41143, Stop: 43056, Start Num: 50
Candidate Starts for BirthdayBoy_62:
(20, 41017), (22, 41026), (23, 41038), (34, 41071), (Start: 49 @41140 has 13 MA's), (Start: 50 @41143 has 61 MA's), (Start: 60 @41155 has 2 MA's), (72, 41203), (82, 41236), (101, 41305), (126, 41395), (132, 41422), (138, 41431), (Start: 168 @41503 has 1 MA's), (197, 41623), (210, 41686), (246, 41776), (258, 41803), (310, 41932), (315, 41956), (321, 41998), (332, 42046), (335, 42067), (338, 42088), (345, 42145), (356, 42199), (366, 42241), (376, 42301), (400, 42397), (401, 42400), (457, 42577), (472, 42628), (498, 42718), (504, 42754), (506, 42760), (516, 42814), (526, 42853), (545, 42955), (550, 42970), (555, 42991),

Gene: BiteSize_50 Start: 36701, Stop: 38755, Start Num: 52
Candidate Starts for BiteSize_50:
(Start: 52 @36701 has 10 MA's), (64, 36725), (85, 36788), (105, 36872), (116, 36914), (187, 37136), (197, 37172), (216, 37247), (229, 37286), (252, 37328), (261, 37346), (267, 37367), (271, 37379), (289, 37439), (294, 37454), (310, 37472), (322, 37550), (327, 37565), (328, 37568), (335, 37607), (338, 37628), (355, 37730), (368, 37787), (371, 37808), (372, 37811), (374, 37823), (388, 37871), (390, 37877), (401, 37925), (408, 37958), (415, 37982), (420, 38000), (424, 38030), (433, 38153), (436, 38186), (438, 38198), (442, 38213), (452, 38252), (465, 38297), (472, 38324), (495, 38408), (509, 38471), (516, 38513), (519, 38522), (521, 38531), (530, 38579), (531, 38588), (532, 38600), (536, 38615), (546, 38657),

Gene: BobtimousPrime_63 Start: 46536, Stop: 48593, Start Num: 50
Candidate Starts for BobtimousPrime_63:
(Start: 50 @46536 has 61 MA's), (70, 46596), (71, 46599), (Start: 96 @46692 has 3 MA's), (100, 46704), (103, 46725), (143, 46848), (144, 46851), (148, 46860), (158, 46893), (161, 46914), (172, 46962), (182, 47004), (197, 47067), (201, 47088), (203, 47094), (218, 47148), (287, 47334), (289, 47346), (299, 47364), (310, 47379), (312, 47385), (368, 47703), (369, 47706), (376, 47751), (390, 47802), (392, 47814), (414, 47904), (418, 47916), (423, 47949), (436, 47973), (437, 47982), (467, 48072), (475, 48105), (503, 48216), (504, 48219), (505, 48222), (506, 48225), (514, 48261), (516, 48279), (530, 48345), (532, 48363), (578, 48540),

Gene: Boneham_63 Start: 53757, Stop: 52225, Start Num: 169
Candidate Starts for Boneham_63:
(95, 54012), (107, 53961), (139, 53856), (151, 53826), (Start: 160 @53793 has 3 MA's), (163, 53784), (Start: 169 @53757 has 29 MA's), (208, 53589), (219, 53547), (225, 53529), (236, 53499), (242, 53487), (248, 53475), (252, 53469), (261, 53448), (316, 53280), (334, 53193), (335, 53178), (337, 53166), (342, 53136), (368, 53007), (372, 52983), (375, 52965), (378, 52947), (379, 52944), (389,

52935), (393, 52917), (415, 52830), (456, 52695), (459, 52680), (464, 52659), (499, 52578), (500, 52575), (511, 52518), (512, 52512), (514, 52500), (525, 52449), (529, 52425), (534, 52386), (537, 52374), (538, 52371), (560, 52278), (567, 52263),

Gene: Bonum_76 Start: 56632, Stop: 54545, Start Num: 38
Candidate Starts for Bonum_76:
(Start: 38 @56632 has 37 MA's), (67, 56512), (Start: 78 @56467 has 1 MA's), (80, 56464), (157, 56209), (189, 56101), (201, 56047), (216, 55984), (253, 55894), (254, 55891), (262, 55867), (279, 55831), (321, 55693), (323, 55675), (327, 55666), (331, 55651), (349, 55528), (363, 55444), (368, 55417), (372, 55393), (392, 55294), (405, 55240), (420, 55186), (426, 55144), (442, 55105), (460, 55036), (465, 55003), (474, 54967), (488, 54922), (491, 54910), (504, 54850), (517, 54787), (553, 54622), (559, 54598),

Gene: Brad_47 Start: 40996, Stop: 38747, Start Num: 24
Candidate Starts for Brad_47:
(Start: 24 @40996 has 4 MA's), (37, 40963), (57, 40879), (107, 40690), (112, 40678), (141, 40588), (152, 40561), (158, 40540), (162, 40513), (164, 40510), (166, 40498), (177, 40459), (208, 40321), (226, 40258), (233, 40243), (236, 40228), (245, 40210), (251, 40198), (256, 40186), (264, 40165), (277, 40117), (278, 40114), (283, 40090), (294, 40048), (296, 40042), (307, 39952), (310, 39928), (334, 39805), (341, 39751), (365, 39640), (368, 39619), (370, 39604), (380, 39544), (393, 39469), (394, 39466), (431, 39301), (463, 39181), (516, 38983), (518, 38977), (530, 38917), (542, 38854), (551, 38824), (557, 38800), (558, 38794),

Gene: Braxoaddie_72 Start: 53132, Stop: 51096, Start Num: 40
Candidate Starts for Braxoaddie_72:
(12, 53300), (Start: 40 @53132 has 6 MA's), (Start: 52 @53066 has 10 MA's), (67, 53024), (98, 52919), (157, 52739), (178, 52682), (189, 52631), (193, 52616), (211, 52526), (216, 52514), (253, 52421), (281, 52349), (312, 52280), (322, 52208), (335, 52151), (368, 51971), (372, 51947), (385, 51884), (392, 51848), (414, 51761), (449, 51629), (459, 51590), (460, 51587), (467, 51542), (504, 51395), (517, 51332), (527, 51290), (532, 51251), (539, 51227),

Gene: Breezic_59 Start: 51749, Stop: 50217, Start Num: 169
Candidate Starts for Breezic_59:
(95, 52004), (107, 51953), (120, 51902), (139, 51848), (151, 51818), (Start: 160 @51785 has 3 MA's), (163, 51776), (Start: 169 @51749 has 29 MA's), (208, 51581), (219, 51539), (236, 51491), (242, 51479), (248, 51467), (252, 51461), (261, 51440), (273, 51413), (316, 51272), (334, 51185), (335, 51170), (337, 51158), (342, 51128), (349, 51077), (357, 51050), (368, 50999), (378, 50939), (379, 50936), (393, 50909), (403, 50867), (415, 50822), (456, 50687), (459, 50672), (464, 50651), (493, 50594), (499, 50570), (500, 50567), (511, 50510), (512, 50504), (513, 50498), (514, 50492), (525, 50441), (529, 50417), (534, 50378), (537, 50366), (538, 50363), (560, 50270), (567, 50255), (576, 50234),

Gene: Buggaboo_74 Start: 57198, Stop: 55111, Start Num: 38
Candidate Starts for Buggaboo_74:
(Start: 38 @57198 has 37 MA's), (67, 57078), (Start: 78 @57033 has 1 MA's), (80, 57030), (157, 56775), (189, 56667), (201, 56613), (216, 56550), (253, 56460), (254, 56457), (262, 56433), (279, 56397), (321, 56259), (323, 56241), (327, 56232), (331, 56217), (349, 56094), (363, 56010), (368, 55983), (372, 55959), (392, 55860), (405, 55806), (420, 55752), (426, 55710), (442, 55671), (460, 55602), (465, 55569), (474, 55533), (488, 55488), (491, 55476), (504, 55416), (506, 55410), (517, 55353), (553, 55188), (559, 55164),

Gene: Butterball_62 Start: 53762, Stop: 52230, Start Num: 169
Candidate Starts for Butterball_62:

(95, 54017), (107, 53966), (139, 53861), (151, 53831), (Start: 160 @53798 has 3 MA's), (163, 53789), (Start: 169 @53762 has 29 MA's), (208, 53594), (219, 53552), (225, 53534), (236, 53504), (242, 53492), (248, 53480), (252, 53474), (261, 53453), (316, 53285), (334, 53198), (335, 53183), (337, 53171), (342, 53141), (368, 53012), (372, 52988), (375, 52970), (378, 52952), (379, 52949), (389, 52940), (393, 52922), (415, 52835), (456, 52700), (459, 52685), (464, 52664), (499, 52583), (500, 52580), (511, 52523), (512, 52517), (514, 52505), (525, 52454), (529, 52430), (534, 52391), (537, 52379), (538, 52376), (560, 52283), (567, 52268),

Gene: Butterscotch_52 Start: 39729, Stop: 41672, Start Num: 50
Candidate Starts for Butterscotch_52:
(Start: 50 @39729 has 61 MA's), (63, 39756), (83, 39828), (97, 39882), (114, 39942), (118, 39960), (119, 39969), (137, 40020), (154, 40062), (Start: 168 @40098 has 1 MA's), (189, 40185), (209, 40278), (211, 40293), (219, 40314), (267, 40416), (278, 40449), (285, 40473), (312, 40533), (327, 40620), (340, 40695), (356, 40785), (368, 40836), (369, 40839), (388, 40929), (392, 40947), (400, 40980), (414, 41034), (418, 41046), (421, 41064), (442, 41127), (465, 41211), (498, 41328), (504, 41376), (517, 41439), (532, 41523),

Gene: C3PO_72 Start: 52724, Stop: 50799, Start Num: 59
Candidate Starts for C3PO_72:
(33, 52817), (Start: 59 @52724 has 8 MA's), (108, 52553), (123, 52499), (142, 52445), (189, 52295), (229, 52139), (253, 52088), (254, 52085), (311, 51956), (312, 51953), (322, 51881), (325, 51872), (392, 51515), (400, 51482), (449, 51296), (506, 51077), (509, 51065), (513, 51047), (517, 51020), (530, 50957), (536, 50924), (554, 50852),

Gene: Camerico_63 Start: 54751, Stop: 53234, Start Num: 181
Candidate Starts for Camerico_63:
(Start: 181 @54751 has 4 MA's), (Start: 198 @54673 has 29 MA's), (201, 54655), (205, 54643), (208, 54628), (227, 54574), (236, 54556), (239, 54550), (263, 54496), (272, 54478), (288, 54418), (295, 54394), (319, 54313), (324, 54274), (333, 54247), (336, 54226), (339, 54199), (341, 54190), (368, 54058), (372, 54034), (375, 54016), (378, 53998), (388, 53989), (449, 53773), (450, 53767), (455, 53752), (469, 53701), (484, 53647), (514, 53506), (528, 53440), (529, 53431), (532, 53398),

Gene: Candle_64 Start: 47961, Stop: 49721, Start Num: 150
Candidate Starts for Candle_64:
(Start: 150 @47961 has 10 MA's), (173, 48030), (194, 48126), (Start: 198 @48135 has 29 MA's), (216, 48216), (232, 48261), (310, 48462), (320, 48510), (331, 48570), (334, 48582), (343, 48648), (364, 48771), (368, 48795), (372, 48819), (392, 49023), (400, 49056), (404, 49071), (414, 49110), (415, 49113), (418, 49122), (442, 49191), (448, 49215), (479, 49323), (504, 49446), (505, 49449), (512, 49476), (516, 49506), (518, 49512), (519, 49515), (523, 49533), (526, 49545), (555, 49680), (563, 49710),

Gene: Casserole_47 Start: 42008, Stop: 39894, Start Num: 52
Candidate Starts for Casserole_47:
(Start: 52 @42008 has 10 MA's), (66, 41975), (93, 41894), (107, 41837), (112, 41825), (141, 41735), (152, 41708), (158, 41687), (162, 41660), (164, 41657), (177, 41606), (226, 41405), (233, 41390), (236, 41375), (245, 41357), (251, 41345), (256, 41333), (264, 41312), (277, 41264), (278, 41261), (283, 41237), (294, 41195), (296, 41189), (310, 41075), (334, 40952), (341, 40898), (365, 40787), (368, 40766), (370, 40751), (380, 40691), (393, 40616), (394, 40613), (431, 40448), (463, 40328), (516, 40130), (518, 40124), (530, 40064), (542, 40001), (551, 39971), (557, 39947), (558, 39941),

Gene: CathyBurgh_59 Start: 52326, Stop: 50794, Start Num: 169
Candidate Starts for CathyBurgh_59:

(95, 52581), (107, 52530), (120, 52479), (139, 52425), (151, 52395), (Start: 160 @52362 has 3 MA's), (163, 52353), (Start: 169 @52326 has 29 MA's), (208, 52158), (219, 52116), (236, 52068), (242, 52056), (248, 52044), (252, 52038), (261, 52017), (273, 51990), (316, 51849), (334, 51762), (335, 51747), (337, 51735), (342, 51705), (349, 51654), (357, 51627), (368, 51576), (372, 51552), (375, 51534), (378, 51516), (379, 51513), (393, 51486), (403, 51444), (415, 51399), (456, 51264), (459, 51249), (464, 51228), (493, 51171), (499, 51147), (511, 51087), (512, 51081), (513, 51075), (514, 51069), (525, 51018), (529, 50994), (534, 50955), (537, 50943), (538, 50940), (560, 50847), (567, 50832), (576, 50811),

Gene: Cborch11_63 Start: 46091, Stop: 48148, Start Num: 50
Candidate Starts for Cborch11_63:
(Start: 50 @46091 has 61 MA's), (70, 46151), (71, 46154), (Start: 96 @46247 has 3 MA's), (100, 46259), (103, 46280), (143, 46403), (144, 46406), (148, 46415), (158, 46448), (161, 46469), (172, 46517), (182, 46559), (197, 46622), (201, 46643), (203, 46649), (218, 46703), (287, 46889), (289, 46901), (299, 46919), (310, 46934), (312, 46940), (368, 47258), (369, 47261), (376, 47306), (390, 47357), (392, 47369), (414, 47459), (418, 47471), (423, 47504), (436, 47528), (437, 47537), (467, 47627), (475, 47660), (503, 47771), (504, 47774), (505, 47777), (506, 47780), (514, 47816), (516, 47834), (530, 47900), (532, 47918), (578, 48095),

Gene: Charianelly_57 Start: 52738, Stop: 51197, Start Num: 160
Candidate Starts for Charianelly_57:
(95, 52957), (128, 52828), (Start: 160 @52738 has 3 MA's), (Start: 198 @52609 has 29 MA's), (208, 52564), (236, 52474), (238, 52471), (240, 52465), (252, 52444), (278, 52381), (301, 52303), (313, 52273), (316, 52255), (334, 52168), (335, 52153), (342, 52111), (358, 52030), (368, 51982), (375, 51940), (378, 51922), (379, 51919), (393, 51892), (405, 51841), (415, 51805), (425, 51754), (456, 51670), (461, 51649), (511, 51493), (512, 51487), (514, 51475), (537, 51349), (567, 51235),

Gene: Charminar_59 Start: 39177, Stop: 41090, Start Num: 50
Candidate Starts for Charminar_59:
(Start: 49 @39174 has 13 MA's), (Start: 50 @39177 has 61 MA's), (Start: 60 @39189 has 2 MA's), (72, 39237), (82, 39270), (126, 39429), (132, 39456), (138, 39465), (Start: 168 @39537 has 1 MA's), (197, 39657), (210, 39720), (246, 39810), (258, 39837), (310, 39966), (315, 39990), (321, 40032), (322, 40044), (327, 40059), (332, 40080), (335, 40101), (338, 40122), (345, 40179), (349, 40197), (356, 40233), (366, 40275), (376, 40335), (400, 40431), (401, 40434), (457, 40611), (472, 40662), (498, 40752), (504, 40788), (506, 40794), (516, 40848), (526, 40887), (545, 40989), (550, 41004), (555, 41025),

Gene: Chelms_59 Start: 52169, Stop: 50760, Start Num: 198
Candidate Starts for Chelms_59:
(95, 52547), (107, 52496), (120, 52445), (139, 52391), (151, 52361), (Start: 160 @52328 has 3 MA's), (163, 52319), (Start: 169 @52292 has 29 MA's), (Start: 198 @52169 has 29 MA's), (208, 52124), (219, 52082), (236, 52034), (238, 52031), (240, 52025), (242, 52022), (248, 52010), (252, 52004), (273, 51956), (275, 51953), (313, 51833), (316, 51815), (328, 51752), (334, 51728), (335, 51713), (342, 51671), (349, 51620), (357, 51593), (368, 51542), (378, 51482), (379, 51479), (389, 51470), (393, 51452), (403, 51410), (415, 51365), (416, 51362), (456, 51230), (459, 51215), (464, 51194), (499, 51113), (500, 51110), (511, 51053), (512, 51047), (514, 51035), (525, 50984), (528, 50969), (529, 50960), (534, 50921), (537, 50909), (560, 50813), (567, 50798),

Gene: ChewyVIII_83 Start: 61890, Stop: 59662, Start Num: 42
Candidate Starts for ChewyVIII_83:
(Start: 42 @61890 has 1 MA's), (123, 61581), (141, 61530), (157, 61485), (189, 61377), (201, 61323), (207, 61293), (212, 61269), (224, 61233), (234, 61212), (249, 61173), (253, 61167), (305, 60918), (322, 60777), (325, 60768), (334, 60735), (335, 60720), (344, 60666), (350, 60621), (354, 60597),

(385, 60450), (388, 60432), (392, 60414), (401, 60378), (415, 60324), (420, 60306), (449, 60195), (460, 60153), (479, 60063), (504, 59958), (509, 59940), (527, 59853), (531, 59823), (532, 59814), (544, 59763), (551, 59739), (553, 59730), (559, 59706), (567, 59688),

Gene: Chill_55 Start: 39836, Stop: 41779, Start Num: 50
Candidate Starts for Chill_55:
(Start: 50 @39836 has 61 MA's), (63, 39863), (83, 39935), (97, 39989), (114, 40049), (118, 40067), (119, 40076), (137, 40127), (154, 40169), (Start: 168 @40205 has 1 MA's), (189, 40292), (209, 40385), (211, 40400), (219, 40421), (267, 40523), (278, 40556), (285, 40580), (312, 40640), (327, 40727), (340, 40802), (356, 40892), (368, 40943), (369, 40946), (388, 41036), (392, 41054), (400, 41087), (414, 41141), (418, 41153), (421, 41171), (442, 41234), (465, 41318), (498, 41435), (504, 41483), (517, 41546), (532, 41630),

Gene: CinnamonToast_65 Start: 53852, Stop: 52284, Start Num: 160
Candidate Starts for CinnamonToast_65:
(95, 54071), (107, 54020), (128, 53942), (139, 53915), (151, 53885), (Start: 160 @53852 has 3 MA's), (163, 53843), (Start: 169 @53816 has 29 MA's), (208, 53648), (219, 53606), (225, 53588), (236, 53558), (242, 53546), (252, 53528), (273, 53480), (316, 53339), (334, 53252), (335, 53237), (337, 53225), (342, 53195), (349, 53144), (368, 53066), (372, 53042), (375, 53024), (378, 53006), (379, 53003), (389, 52994), (393, 52976), (415, 52889), (456, 52754), (459, 52739), (464, 52718), (493, 52661), (499, 52637), (500, 52634), (511, 52577), (512, 52571), (514, 52559), (525, 52508), (529, 52484), (534, 52445), (537, 52433), (538, 52430), (560, 52337), (567, 52322), (576, 52301),

Gene: CoffeeBean_72 Start: 53090, Stop: 51054, Start Num: 40
Candidate Starts for CoffeeBean_72:
(12, 53258), (Start: 40 @53090 has 6 MA's), (Start: 52 @53024 has 10 MA's), (67, 52982), (98, 52877), (157, 52697), (178, 52640), (189, 52589), (193, 52574), (211, 52484), (216, 52472), (253, 52379), (281, 52307), (312, 52238), (322, 52166), (335, 52109), (368, 51929), (372, 51905), (385, 51842), (392, 51806), (414, 51719), (449, 51587), (459, 51548), (460, 51545), (467, 51500), (504, 51353), (517, 51290), (527, 51248), (532, 51209), (539, 51185),

Gene: Commandaria_72 Start: 56463, Stop: 54385, Start Num: 38
Candidate Starts for Commandaria_72:
(Start: 38 @56463 has 37 MA's), (54, 56391), (88, 56277), (154, 56058), (157, 56049), (158, 56046), (189, 55941), (201, 55887), (216, 55824), (253, 55734), (279, 55671), (280, 55665), (321, 55533), (323, 55515), (368, 55260), (372, 55236), (392, 55134), (405, 55080), (408, 55065), (413, 55059), (426, 54984), (442, 54945), (460, 54876), (466, 54840), (467, 54837), (474, 54807), (487, 54765), (504, 54690), (517, 54627), (532, 54546), (553, 54462), (559, 54438),

Gene: Crete_60 Start: 52291, Stop: 50882, Start Num: 198
Candidate Starts for Crete_60:
(95, 52669), (107, 52618), (120, 52567), (139, 52513), (151, 52483), (Start: 160 @52450 has 3 MA's), (163, 52441), (Start: 169 @52414 has 29 MA's), (Start: 198 @52291 has 29 MA's), (208, 52246), (219, 52204), (236, 52156), (238, 52153), (240, 52147), (242, 52144), (248, 52132), (252, 52126), (273, 52078), (275, 52075), (313, 51955), (316, 51937), (328, 51874), (334, 51850), (335, 51835), (342, 51793), (349, 51742), (357, 51715), (368, 51664), (378, 51604), (379, 51601), (389, 51592), (393, 51574), (403, 51532), (415, 51487), (420, 51469), (456, 51352), (459, 51337), (464, 51316), (499, 51235), (500, 51232), (511, 51175), (512, 51169), (514, 51157), (525, 51106), (528, 51091), (529, 51082), (534, 51043), (537, 51031), (560, 50935), (567, 50920),

Gene: Cruella_72 Start: 52724, Stop: 50799, Start Num: 59
Candidate Starts for Cruella_72:

(33, 52817), (Start: 59 @52724 has 8 MA's), (108, 52553), (123, 52499), (142, 52445), (189, 52295), (229, 52139), (253, 52088), (254, 52085), (311, 51956), (312, 51953), (322, 51881), (325, 51872), (392, 51515), (400, 51482), (449, 51296), (506, 51077), (509, 51065), (513, 51047), (517, 51020), (530, 50957), (536, 50924), (554, 50852),

Gene: Cuke_73 Start: 42303, Stop: 44156, Start Num: 84
Candidate Starts for Cuke_73:
(Start: 84 @42303 has 3 MA's), (116, 42423), (148, 42516), (158, 42549), (183, 42642), (185, 42651), (189, 42660), (196, 42690), (197, 42693), (209, 42750), (218, 42786), (221, 42798), (234, 42825), (241, 42849), (261, 42888), (278, 42942), (286, 42972), (289, 42990), (293, 43002), (334, 43143), (351, 43269), (366, 43326), (368, 43338), (392, 43440), (400, 43473), (404, 43488), (409, 43512), (413, 43515), (418, 43539), (435, 43578), (488, 43773), (504, 43863), (506, 43869), (513, 43899), (531, 43998), (543, 44058), (549, 44076), (552, 44088), (565, 44133), (568, 44139),

Gene: Dakiti_60 Start: 53037, Stop: 51628, Start Num: 198
Candidate Starts for Dakiti_60:
(95, 53415), (107, 53364), (120, 53313), (139, 53259), (151, 53229), (Start: 160 @53196 has 3 MA's), (163, 53187), (Start: 169 @53160 has 29 MA's), (Start: 198 @53037 has 29 MA's), (208, 52992), (219, 52950), (236, 52902), (238, 52899), (240, 52893), (242, 52890), (248, 52878), (252, 52872), (273, 52824), (275, 52821), (313, 52701), (316, 52683), (328, 52620), (334, 52596), (335, 52581), (342, 52539), (349, 52488), (357, 52461), (368, 52410), (378, 52350), (379, 52347), (389, 52338), (393, 52320), (403, 52278), (415, 52233), (416, 52230), (456, 52098), (459, 52083), (464, 52062), (499, 51981), (500, 51978), (511, 51921), (512, 51915), (514, 51903), (525, 51852), (528, 51837), (529, 51828), (534, 51789), (537, 51777), (560, 51681), (567, 51666),

Gene: Dalilpop_75 Start: 57466, Stop: 55409, Start Num: 38
Candidate Starts for Dalilpop_75:
(Start: 38 @57466 has 37 MA's), (189, 56953), (201, 56899), (215, 56839), (216, 56836), (253, 56746), (260, 56728), (279, 56683), (280, 56677), (291, 56638), (316, 56584), (323, 56527), (349, 56380), (353, 56347), (361, 56317), (363, 56311), (368, 56284), (369, 56281), (392, 56161), (408, 56092), (414, 56074), (442, 55969), (445, 55960), (460, 55900), (467, 55861), (474, 55831), (491, 55774), (504, 55714), (512, 55684), (517, 55651), (527, 55609), (562, 55453),

Gene: Damien_61 Start: 46053, Stop: 48110, Start Num: 50
Candidate Starts for Damien_61:
(Start: 50 @46053 has 61 MA's), (70, 46113), (71, 46116), (Start: 96 @46209 has 3 MA's), (100, 46221), (103, 46242), (143, 46365), (144, 46368), (148, 46377), (158, 46410), (161, 46431), (172, 46479), (182, 46521), (197, 46584), (201, 46605), (203, 46611), (218, 46665), (287, 46851), (289, 46863), (299, 46881), (310, 46896), (312, 46902), (368, 47220), (369, 47223), (376, 47268), (390, 47319), (392, 47331), (414, 47421), (418, 47433), (423, 47466), (436, 47490), (437, 47499), (467, 47589), (475, 47622), (503, 47733), (504, 47736), (505, 47739), (506, 47742), (514, 47778), (516, 47796), (530, 47862), (532, 47880), (578, 48057),

Gene: Damp_57 Start: 51773, Stop: 50361, Start Num: 198
Candidate Starts for Damp_57:
(95, 52121), (128, 51992), (159, 51905), (Start: 160 @51902 has 3 MA's), (Start: 198 @51773 has 29 MA's), (208, 51728), (236, 51638), (238, 51635), (240, 51629), (252, 51608), (278, 51545), (313, 51437), (316, 51419), (334, 51332), (335, 51317), (342, 51275), (358, 51194), (368, 51146), (375, 51104), (378, 51086), (379, 51083), (393, 51056), (405, 51005), (415, 50969), (425, 50918), (456, 50834), (461, 50813), (511, 50657), (512, 50651), (514, 50639), (537, 50513), (567, 50399),

Gene: Darwin_73 Start: 51965, Stop: 50040, Start Num: 59
Candidate Starts for Darwin_73:

(33, 52058), (Start: 59 @51965 has 8 MA's), (108, 51794), (123, 51740), (189, 51536), (229, 51380), (253, 51329), (254, 51326), (274, 51284), (311, 51197), (312, 51194), (322, 51122), (325, 51113), (392, 50756), (400, 50723), (415, 50666), (491, 50384), (506, 50318), (509, 50306), (513, 50288), (514, 50282), (517, 50261), (530, 50198), (536, 50165), (545, 50126),

Gene: DaviePasture_60 Start: 40751, Stop: 42664, Start Num: 50
Candidate Starts for DaviePasture_60:
(46, 40736), (Start: 49 @40748 has 13 MA's), (Start: 50 @40751 has 61 MA's), (Start: 60 @40763 has 2 MA's), (72, 40811), (101, 40913), (126, 41003), (132, 41030), (138, 41039), (Start: 168 @41111 has 1 MA's), (189, 41198), (197, 41231), (210, 41294), (217, 41312), (246, 41384), (258, 41411), (310, 41540), (315, 41564), (321, 41606), (332, 41654), (335, 41675), (338, 41696), (345, 41753), (349, 41771), (356, 41807), (366, 41849), (376, 41909), (400, 42005), (401, 42008), (472, 42236), (498, 42326), (504, 42362), (506, 42368), (516, 42422), (526, 42461), (545, 42563), (550, 42578), (555, 42599),

Gene: Delton_54 Start: 40127, Stop: 42070, Start Num: 50
Candidate Starts for Delton_54:
(35, 40058), (Start: 50 @40127 has 61 MA's), (63, 40154), (69, 40178), (83, 40226), (97, 40280), (114, 40340), (119, 40367), (137, 40418), (138, 40421), (154, 40460), (Start: 168 @40496 has 1 MA's), (189, 40583), (209, 40676), (211, 40691), (219, 40712), (267, 40814), (278, 40847), (285, 40871), (312, 40931), (327, 41018), (340, 41093), (356, 41183), (368, 41234), (369, 41237), (388, 41327), (392, 41345), (400, 41378), (414, 41432), (418, 41444), (421, 41462), (442, 41525), (465, 41609), (498, 41726), (504, 41774), (517, 41837), (532, 41921),

Gene: Demikore_78 Start: 49350, Stop: 51383, Start Num: 53
Candidate Starts for Demikore_78:
(Start: 53 @49350 has 3 MA's), (63, 49374), (Start: 78 @49437 has 1 MA's), (98, 49503), (112, 49554), (113, 49557), (148, 49665), (158, 49698), (172, 49737), (179, 49761), (193, 49824), (197, 49842), (Start: 198 @49845 has 29 MA's), (201, 49863), (203, 49869), (223, 49938), (235, 49965), (237, 49977), (255, 50010), (287, 50112), (322, 50235), (331, 50265), (345, 50370), (349, 50388), (367, 50478), (368, 50481), (381, 50583), (382, 50622), (390, 50649), (392, 50661), (404, 50709), (407, 50727), (414, 50754), (418, 50766), (420, 50775), (467, 50913), (479, 50958), (503, 51063), (530, 51192), (536, 51225), (540, 51243), (554, 51297), (567, 51336),

Gene: Demosthenes_55 Start: 52768, Stop: 51074, Start Num: 115
Candidate Starts for Demosthenes_55:
(Start: 111 @52780 has 9 MA's), (Start: 115 @52768 has 2 MA's), (145, 52669), (Start: 153 @52648 has 1 MA's), (171, 52582), (199, 52483), (208, 52447), (213, 52423), (217, 52414), (219, 52405), (236, 52357), (248, 52333), (270, 52291), (275, 52276), (278, 52261), (293, 52204), (294, 52201), (314, 52141), (315, 52138), (328, 52072), (330, 52069), (335, 52033), (336, 52030), (338, 52012), (339, 52003), (342, 51991), (348, 51943), (358, 51910), (364, 51886), (368, 51862), (372, 51838), (393, 51772), (415, 51673), (455, 51541), (456, 51538), (485, 51472), (499, 51421), (500, 51418), (511, 51361), (514, 51343), (534, 51226), (535, 51223), (538, 51211), (567, 51112), (576, 51091),

Gene: Diabla_63 Start: 53692, Stop: 52283, Start Num: 198
Candidate Starts for Diabla_63:
(95, 54070), (107, 54019), (139, 53914), (151, 53884), (Start: 160 @53851 has 3 MA's), (163, 53842), (Start: 169 @53815 has 29 MA's), (Start: 198 @53692 has 29 MA's), (208, 53647), (219, 53605), (236, 53557), (238, 53554), (240, 53548), (242, 53545), (252, 53527), (261, 53506), (273, 53479), (313, 53356), (316, 53338), (334, 53251), (335, 53236), (349, 53143), (368, 53065), (372, 53041), (378, 53005), (379, 53002), (393, 52975), (403, 52933), (415, 52888), (420, 52870), (442, 52804), (456, 52753), (459, 52738), (464, 52717), (493, 52660), (500, 52633), (511, 52576), (512, 52570), (514, 52558), (525, 52507), (529, 52483), (534, 52444), (537, 52432), (538, 52429), (560, 52336), (567,

52321), (576, 52300),

Gene: Djokovic_50 Start: 36614, Stop: 38668, Start Num: 52
Candidate Starts for Djokovic_50:
(Start: 52 @36614 has 10 MA's), (64, 36638), (85, 36701), (105, 36785), (116, 36827), (187, 37049), (197, 37085), (216, 37160), (229, 37199), (252, 37241), (261, 37259), (267, 37280), (271, 37292), (289, 37352), (294, 37367), (310, 37385), (322, 37463), (327, 37478), (328, 37481), (335, 37520), (338, 37541), (355, 37643), (368, 37700), (371, 37721), (372, 37724), (374, 37736), (388, 37784), (390, 37790), (401, 37838), (408, 37871), (415, 37895), (420, 37913), (424, 37943), (433, 38066), (436, 38099), (438, 38111), (442, 38126), (452, 38165), (465, 38210), (472, 38237), (495, 38321), (509, 38384), (516, 38426), (519, 38435), (521, 38444), (530, 38492), (531, 38501), (532, 38513), (536, 38528), (546, 38570),

Gene: DocB7_048 Start: 43676, Stop: 42174, Start Num: 181
Candidate Starts for DocB7_048:
(Start: 181 @43676 has 4 MA's), (201, 43580), (208, 43553), (217, 43520), (225, 43496), (236, 43466), (272, 43391), (295, 43310), (301, 43295), (329, 43184), (333, 43163), (338, 43124), (366, 42986), (368, 42974), (369, 42971), (372, 42950), (395, 42872), (415, 42812), (455, 42677), (456, 42674), (470, 42623), (481, 42602), (489, 42575), (502, 42509), (508, 42482), (510, 42473), (514, 42452), (521, 42416), (529, 42377), (540, 42311), (569, 42215),

Gene: DoobyDoo_59 Start: 39773, Stop: 41686, Start Num: 50
Candidate Starts for DoobyDoo_59:
(Start: 49 @39770 has 13 MA's), (Start: 50 @39773 has 61 MA's), (Start: 60 @39785 has 2 MA's), (72, 39833), (82, 39866), (101, 39935), (126, 40025), (132, 40052), (138, 40061), (Start: 168 @40133 has 1 MA's), (189, 40220), (197, 40253), (210, 40316), (246, 40406), (310, 40562), (315, 40586), (321, 40628), (332, 40676), (335, 40697), (338, 40718), (345, 40775), (356, 40829), (366, 40871), (376, 40931), (400, 41027), (401, 41030), (457, 41207), (472, 41258), (498, 41348), (504, 41384), (506, 41390), (514, 41426), (516, 41444), (526, 41483), (545, 41585), (550, 41600), (555, 41621),

Gene: DrLupo_67 Start: 46291, Stop: 48255, Start Num: 48
Candidate Starts for DrLupo_67:
(17, 46123), (26, 46198), (27, 46204), (Start: 48 @46291 has 1 MA's), (56, 46312), (Start: 60 @46318 has 2 MA's), (62, 46324), (70, 46357), (76, 46390), (93, 46438), (98, 46459), (103, 46486), (112, 46510), (129, 46573), (135, 46591), (143, 46609), (148, 46621), (158, 46654), (172, 46696), (178, 46717), (179, 46720), (182, 46738), (190, 46771), (191, 46777), (197, 46801), (Start: 198 @46804 has 29 MA's), (217, 46876), (299, 47095), (310, 47110), (322, 47188), (338, 47266), (349, 47341), (354, 47374), (384, 47536), (390, 47542), (418, 47668), (419, 47671), (437, 47707), (439, 47713), (467, 47797), (475, 47830), (503, 47941), (504, 47944), (507, 47953), (514, 47986), (517, 48007), (527, 48049), (539, 48112), (544, 48139), (571, 48223),

Gene: DumpTruck_58 Start: 39261, Stop: 41165, Start Num: 60
Candidate Starts for DumpTruck_58:
(21, 39126), (25, 39147), (32, 39168), (43, 39198), (Start: 49 @39243 has 13 MA's), (Start: 50 @39246 has 61 MA's), (Start: 60 @39261 has 2 MA's), (72, 39309), (82, 39342), (85, 39345), (112, 39450), (132, 39528), (138, 39537), (Start: 168 @39609 has 1 MA's), (172, 39624), (175, 39633), (196, 39726), (Start: 198 @39732 has 29 MA's), (210, 39792), (289, 40005), (310, 40038), (327, 40131), (331, 40146), (335, 40173), (338, 40194), (356, 40308), (366, 40350), (367, 40359), (374, 40398), (376, 40410), (388, 40455), (390, 40461), (400, 40506), (404, 40521), (438, 40614), (465, 40707), (504, 40860), (514, 40902), (516, 40920), (517, 40923), (545, 41061), (555, 41097), (575, 41151),

Gene: Eggsie_57 Start: 51628, Stop: 50060, Start Num: 160
Candidate Starts for Eggsie_57:

(95, 51847), (120, 51745), (128, 51718), (139, 51691), (147, 51670), (151, 51661), (Start: 160 @51628 has 3 MA's), (163, 51619), (Start: 169 @51592 has 29 MA's), (Start: 198 @51469 has 29 MA's), (208, 51424), (219, 51382), (236, 51334), (238, 51331), (240, 51325), (242, 51322), (252, 51304), (261, 51283), (273, 51256), (313, 51133), (316, 51115), (334, 51028), (335, 51013), (349, 50920), (368, 50842), (372, 50818), (378, 50782), (379, 50779), (393, 50752), (403, 50710), (415, 50665), (420, 50647), (442, 50581), (456, 50530), (459, 50515), (464, 50494), (493, 50437), (500, 50410), (511, 50353), (512, 50347), (514, 50335), (525, 50284), (529, 50260), (534, 50221), (537, 50209), (538, 50206), (560, 50113), (567, 50098), (576, 50077),

Gene: Ekhein_59 Start: 51454, Stop: 49922, Start Num: 169
Candidate Starts for Ekhein_59:
(95, 51709), (107, 51658), (120, 51607), (139, 51553), (151, 51523), (Start: 160 @51490 has 3 MA's), (163, 51481), (Start: 169 @51454 has 29 MA's), (208, 51286), (219, 51244), (236, 51196), (242, 51184), (248, 51172), (252, 51166), (261, 51145), (273, 51118), (316, 50977), (334, 50890), (335, 50875), (337, 50863), (342, 50833), (349, 50782), (357, 50755), (368, 50704), (375, 50662), (378, 50644), (379, 50641), (393, 50614), (403, 50572), (415, 50527), (456, 50392), (459, 50377), (464, 50356), (493, 50299), (499, 50275), (500, 50272), (511, 50215), (512, 50209), (513, 50203), (514, 50197), (525, 50146), (529, 50122), (534, 50083), (537, 50071), (538, 50068), (560, 49975), (567, 49960), (576, 49939),

Gene: Emianna_72 Start: 56707, Stop: 54641, Start Num: 38
Candidate Starts for Emianna_72:
(2, 57205), (5, 57004), (8, 56911), (9, 56899), (11, 56881), (Start: 38 @56707 has 37 MA's), (Start: 73 @56569 has 2 MA's), (77, 56545), (141, 56341), (157, 56296), (189, 56188), (215, 56074), (216, 56071), (253, 55981), (254, 55978), (279, 55918), (321, 55780), (323, 55762), (331, 55738), (349, 55615), (368, 55510), (392, 55384), (405, 55330), (440, 55204), (442, 55195), (448, 55171), (465, 55099), (467, 55093), (474, 55063), (491, 55006), (504, 54946), (517, 54883), (532, 54802),

Gene: Ennea_79 Start: 57918, Stop: 55861, Start Num: 38
Candidate Starts for Ennea_79:
(6, 58206), (10, 58098), (Start: 38 @57918 has 37 MA's), (148, 57543), (190, 57402), (201, 57351), (215, 57291), (216, 57288), (243, 57216), (253, 57198), (279, 57135), (280, 57129), (288, 57102), (316, 57036), (321, 56997), (323, 56979), (331, 56955), (349, 56832), (353, 56799), (368, 56736), (392, 56613), (408, 56544), (414, 56526), (442, 56421), (445, 56412), (460, 56352), (465, 56319), (467, 56313), (474, 56283), (491, 56226), (504, 56166), (512, 56136), (517, 56103), (553, 55938),

Gene: Erk16_52 Start: 39875, Stop: 41818, Start Num: 50
Candidate Starts for Erk16_52:
(39, 39812), (Start: 50 @39875 has 61 MA's), (63, 39902), (83, 39974), (97, 40028), (114, 40088), (119, 40115), (137, 40166), (154, 40208), (Start: 168 @40244 has 1 MA's), (189, 40331), (209, 40424), (211, 40439), (219, 40460), (267, 40562), (278, 40595), (285, 40619), (312, 40679), (327, 40766), (340, 40841), (356, 40931), (368, 40982), (369, 40985), (388, 41075), (392, 41093), (400, 41126), (418, 41192), (421, 41210), (442, 41273), (465, 41357), (498, 41474), (504, 41522), (517, 41585), (532, 41669),

Gene: Erutan_60 Start: 40423, Stop: 42336, Start Num: 50
Candidate Starts for Erutan_60:
(20, 40297), (22, 40306), (23, 40318), (34, 40351), (Start: 49 @40420 has 13 MA's), (Start: 50 @40423 has 61 MA's), (Start: 60 @40435 has 2 MA's), (72, 40483), (82, 40516), (126, 40675), (132, 40702), (138, 40711), (Start: 168 @40783 has 1 MA's), (189, 40870), (197, 40903), (210, 40966), (246, 41056), (258, 41083), (310, 41212), (315, 41236), (321, 41278), (332, 41326), (335, 41347), (338, 41368), (345, 41425), (356, 41479), (366, 41521), (376, 41581), (400, 41677), (401, 41680), (472, 41908), (498, 41998), (504, 42034), (506, 42040), (516, 42094), (526, 42133), (545, 42235), (550, 42250),

(555, 42271),

Gene: Exiguo_58 Start: 51466, Stop: 49934, Start Num: 169
Candidate Starts for Exiguo_58:
(95, 51721), (107, 51670), (120, 51619), (139, 51565), (151, 51535), (Start: 160 @51502 has 3 MA's), (163, 51493), (Start: 169 @51466 has 29 MA's), (208, 51298), (219, 51256), (236, 51208), (242, 51196), (248, 51184), (252, 51178), (261, 51157), (273, 51130), (316, 50989), (334, 50902), (335, 50887), (337, 50875), (342, 50845), (349, 50794), (357, 50767), (368, 50716), (375, 50674), (378, 50656), (379, 50653), (393, 50626), (403, 50584), (415, 50539), (456, 50404), (459, 50389), (464, 50368), (493, 50311), (499, 50287), (500, 50284), (511, 50227), (512, 50221), (513, 50215), (514, 50209), (525, 50158), (529, 50134), (534, 50095), (537, 50083), (538, 50080), (560, 49987), (567, 49972), (576, 49951),

Gene: FelixAlejandro_64 Start: 54160, Stop: 52628, Start Num: 169
Candidate Starts for FelixAlejandro_64:
(95, 54415), (107, 54364), (139, 54259), (151, 54229), (Start: 160 @54196 has 3 MA's), (163, 54187), (Start: 169 @54160 has 29 MA's), (199, 54028), (208, 53992), (219, 53950), (225, 53932), (236, 53902), (242, 53890), (248, 53878), (252, 53872), (261, 53851), (316, 53683), (334, 53596), (335, 53581), (337, 53569), (342, 53539), (349, 53488), (368, 53410), (372, 53386), (375, 53368), (378, 53350), (379, 53347), (389, 53338), (393, 53320), (415, 53233), (456, 53098), (459, 53083), (464, 53062), (499, 52981), (500, 52978), (511, 52921), (512, 52915), (514, 52903), (525, 52852), (529, 52828), (534, 52789), (537, 52777), (538, 52774), (560, 52681), (567, 52666), (576, 52645),

Gene: Flakey_58 Start: 52330, Stop: 50798, Start Num: 169
Candidate Starts for Flakey_58:
(95, 52585), (107, 52534), (120, 52483), (139, 52429), (151, 52399), (Start: 160 @52366 has 3 MA's), (163, 52357), (Start: 169 @52330 has 29 MA's), (208, 52162), (219, 52120), (236, 52072), (242, 52060), (248, 52048), (252, 52042), (261, 52021), (273, 51994), (316, 51853), (334, 51766), (335, 51751), (337, 51739), (342, 51709), (349, 51658), (357, 51631), (368, 51580), (375, 51538), (378, 51520), (379, 51517), (393, 51490), (403, 51448), (415, 51403), (456, 51268), (459, 51253), (464, 51232), (493, 51175), (499, 51151), (500, 51148), (511, 51091), (512, 51085), (513, 51079), (514, 51073), (525, 51022), (529, 50998), (534, 50959), (537, 50947), (538, 50944), (560, 50851), (567, 50836), (576, 50815),

Gene: Flapper_75 Start: 57019, Stop: 54962, Start Num: 38
Candidate Starts for Flapper_75:
(6, 57304), (11, 57187), (13, 57169), (Start: 38 @57019 has 37 MA's), (98, 56794), (189, 56506), (201, 56452), (209, 56416), (215, 56392), (216, 56389), (247, 56311), (253, 56299), (260, 56281), (279, 56236), (280, 56230), (291, 56191), (316, 56137), (321, 56098), (323, 56080), (349, 55933), (353, 55900), (361, 55870), (363, 55864), (368, 55837), (392, 55714), (408, 55645), (414, 55627), (442, 55522), (445, 55513), (449, 55495), (460, 55453), (467, 55414), (474, 55384), (480, 55366), (491, 55327), (504, 55267), (512, 55237), (517, 55204), (527, 55162), (562, 55006),

Gene: Float294_74 Start: 57824, Stop: 55767, Start Num: 38
Candidate Starts for Float294_74:
(10, 58004), (Start: 38 @57824 has 37 MA's), (148, 57449), (182, 57341), (190, 57308), (201, 57257), (215, 57197), (216, 57194), (243, 57122), (253, 57104), (279, 57041), (280, 57035), (288, 57008), (316, 56942), (321, 56903), (323, 56885), (331, 56861), (349, 56738), (353, 56705), (368, 56642), (392, 56519), (408, 56450), (414, 56432), (442, 56327), (460, 56258), (467, 56219), (473, 56195), (474, 56189), (491, 56132), (504, 56072), (512, 56042), (517, 56009), (553, 55844),

Gene: Fowlmouth_74 Start: 44820, Stop: 46667, Start Num: 84
Candidate Starts for Fowlmouth_74:

(Start: 84 @44820 has 3 MA's), (91, 44838), (99, 44874), (114, 44925), (148, 45033), (158, 45066), (178, 45126), (185, 45168), (196, 45207), (218, 45303), (221, 45315), (234, 45342), (237, 45357), (241, 45366), (261, 45405), (265, 45420), (289, 45507), (293, 45519), (322, 45618), (323, 45624), (331, 45648), (340, 45708), (351, 45786), (357, 45813), (366, 45843), (368, 45855), (372, 45879), (391, 45951), (392, 45957), (400, 45990), (404, 46005), (409, 46029), (413, 46032), (418, 46056), (504, 46380), (507, 46389), (513, 46416), (516, 46440), (527, 46485), (532, 46527), (543, 46575), (549, 46593), (565, 46650),

Gene: Foxboro_72 Start: 56919, Stop: 54853, Start Num: 38
Candidate Starts for Foxboro_72:
(8, 57123), (9, 57111), (11, 57093), (Start: 38 @56919 has 37 MA's), (Start: 73 @56781 has 2 MA's), (77, 56757), (141, 56553), (157, 56508), (189, 56400), (215, 56286), (216, 56283), (253, 56193), (254, 56190), (279, 56130), (321, 55992), (323, 55974), (331, 55950), (349, 55827), (368, 55722), (392, 55596), (405, 55542), (440, 55416), (442, 55407), (448, 55383), (465, 55311), (467, 55305), (474, 55275), (491, 55218), (504, 55158), (517, 55095), (532, 55014),

Gene: Fulcrum_60 Start: 40439, Stop: 42352, Start Num: 50
Candidate Starts for Fulcrum_60:
(20, 40313), (22, 40322), (23, 40334), (34, 40367), (Start: 49 @40436 has 13 MA's), (Start: 50 @40439 has 61 MA's), (Start: 60 @40451 has 2 MA's), (72, 40499), (82, 40532), (101, 40601), (126, 40691), (132, 40718), (138, 40727), (Start: 168 @40799 has 1 MA's), (197, 40919), (210, 40982), (246, 41072), (258, 41099), (310, 41228), (315, 41252), (321, 41294), (327, 41321), (332, 41342), (335, 41363), (338, 41384), (345, 41441), (349, 41459), (356, 41495), (366, 41537), (376, 41597), (400, 41693), (401, 41696), (472, 41924), (498, 42014), (504, 42050), (506, 42056), (516, 42110), (526, 42149), (545, 42251), (550, 42266), (555, 42287),

Gene: Fury_82 Start: 56141, Stop: 54093, Start Num: 38
Candidate Starts for Fury_82:
(Start: 38 @56141 has 37 MA's), (75, 55988), (Start: 84 @55973 has 3 MA's), (103, 55892), (148, 55769), (157, 55739), (189, 55631), (197, 55598), (207, 55547), (216, 55514), (253, 55424), (265, 55391), (279, 55361), (311, 55286), (323, 55205), (335, 55154), (349, 55058), (353, 55025), (363, 54989), (368, 54962), (391, 54845), (392, 54839), (408, 54770), (414, 54752), (418, 54740), (460, 54578), (467, 54545), (474, 54515), (479, 54500), (491, 54458), (517, 54335), (532, 54254), (539, 54230), (553, 54170),

Gene: GMA3_58 Start: 50868, Stop: 49351, Start Num: 181
Candidate Starts for GMA3_58:
(103, 51117), (106, 51111), (125, 51039), (Start: 181 @50868 has 4 MA's), (201, 50772), (208, 50745), (211, 50727), (215, 50718), (227, 50691), (236, 50673), (252, 50643), (263, 50613), (272, 50592), (278, 50571), (301, 50493), (313, 50463), (315, 50448), (319, 50427), (336, 50334), (341, 50298), (349, 50244), (368, 50166), (379, 50103), (393, 50076), (396, 50061), (398, 50052), (419, 49989), (425, 49950), (448, 49890), (454, 49869), (455, 49866), (456, 49863), (469, 49815), (504, 49653), (514, 49611), (524, 49563), (534, 49497), (537, 49485),

Gene: GMA7_51 Start: 46927, Stop: 45296, Start Num: 122
Candidate Starts for GMA7_51:
(Start: 122 @46927 has 3 MA's), (126, 46915), (147, 46864), (149, 46858), (167, 46801), (208, 46660), (219, 46618), (223, 46606), (236, 46570), (238, 46567), (252, 46540), (270, 46504), (273, 46492), (278, 46477), (313, 46369), (334, 46264), (335, 46249), (358, 46126), (368, 46078), (372, 46054), (375, 46036), (393, 45988), (405, 45937), (415, 45901), (420, 45883), (456, 45766), (481, 45715), (493, 45673), (504, 45613), (514, 45571), (525, 45520), (529, 45496), (567, 45334), (576, 45313),

Gene: GOATification_60 Start: 40439, Stop: 42352, Start Num: 50

Candidate Starts for GOATification_60:
(20, 40313), (22, 40322), (23, 40334), (34, 40367), (Start: 49 @40436 has 13 MA's), (Start: 50 @40439 has 61 MA's), (Start: 60 @40451 has 2 MA's), (72, 40499), (82, 40532), (101, 40601), (126, 40691), (132, 40718), (138, 40727), (Start: 168 @40799 has 1 MA's), (197, 40919), (210, 40982), (246, 41072), (258, 41099), (310, 41228), (315, 41252), (321, 41294), (327, 41321), (332, 41342), (335, 41363), (338, 41384), (345, 41441), (349, 41459), (356, 41495), (366, 41537), (376, 41597), (400, 41693), (401, 41696), (472, 41924), (498, 42014), (504, 42050), (506, 42056), (516, 42110), (526, 42149), (545, 42251), (550, 42266), (555, 42287),

Gene: GRU1_61 Start: 48864, Stop: 46807, Start Num: 38
Candidate Starts for GRU1_61:
(11, 49032), (Start: 38 @48864 has 37 MA's), (178, 48402), (189, 48351), (215, 48237), (216, 48234), (247, 48156), (253, 48144), (260, 48126), (279, 48081), (280, 48075), (291, 48036), (316, 47982), (321, 47943), (323, 47925), (349, 47778), (353, 47745), (363, 47709), (368, 47682), (392, 47559), (408, 47490), (414, 47472), (420, 47451), (442, 47367), (460, 47298), (467, 47259), (474, 47229), (491, 47172), (504, 47112), (512, 47082), (517, 47049), (527, 47007), (562, 46851),

Gene: GTE7_50 Start: 46958, Stop: 45327, Start Num: 122
Candidate Starts for GTE7_50:
(Start: 122 @46958 has 3 MA's), (126, 46946), (147, 46895), (149, 46889), (167, 46832), (208, 46691), (219, 46649), (223, 46637), (236, 46601), (238, 46598), (252, 46571), (273, 46523), (278, 46508), (313, 46400), (334, 46295), (335, 46280), (358, 46157), (368, 46109), (372, 46085), (375, 46067), (393, 46019), (405, 45968), (415, 45932), (420, 45914), (456, 45797), (481, 45746), (493, 45704), (504, 45644), (514, 45602), (525, 45551), (529, 45527), (567, 45365), (576, 45344),

Gene: GTE8_60 Start: 49561, Stop: 47633, Start Num: 73
Candidate Starts for GTE8_60:
(8, 49903), (11, 49873), (18, 49798), (Start: 38 @49699 has 37 MA's), (Start: 73 @49561 has 2 MA's), (77, 49537), (157, 49288), (189, 49180), (215, 49066), (216, 49063), (253, 48973), (254, 48970), (279, 48910), (323, 48754), (327, 48745), (331, 48730), (349, 48607), (368, 48502), (372, 48478), (392, 48376), (405, 48322), (413, 48301), (442, 48187), (465, 48091), (467, 48085), (474, 48055), (486, 48016), (491, 47998), (504, 47938), (517, 47875), (532, 47794), (553, 47710),

Gene: Gagieri_70 Start: 52937, Stop: 50901, Start Num: 40
Candidate Starts for Gagieri_70:
(3, 53405), (4, 53399), (Start: 40 @52937 has 6 MA's), (67, 52829), (157, 52544), (178, 52487), (189, 52436), (193, 52421), (211, 52331), (216, 52319), (224, 52292), (253, 52226), (281, 52154), (293, 52112), (312, 52085), (322, 52013), (335, 51956), (368, 51776), (372, 51752), (385, 51689), (392, 51653), (414, 51566), (449, 51434), (459, 51395), (460, 51392), (491, 51260), (504, 51200), (517, 51137), (527, 51095), (539, 51032),

Gene: GalacticEye_57 Start: 52570, Stop: 51158, Start Num: 198
Candidate Starts for GalacticEye_57:
(95, 52918), (128, 52789), (159, 52702), (Start: 160 @52699 has 3 MA's), (Start: 198 @52570 has 29 MA's), (208, 52525), (236, 52435), (238, 52432), (240, 52426), (252, 52405), (278, 52342), (313, 52234), (316, 52216), (334, 52129), (335, 52114), (342, 52072), (358, 51991), (368, 51943), (375, 51901), (378, 51883), (379, 51880), (393, 51853), (405, 51802), (415, 51766), (425, 51715), (456, 51631), (461, 51610), (511, 51454), (512, 51448), (514, 51436), (537, 51310), (567, 51196),

Gene: GalaxyEater_51 Start: 43702, Stop: 41588, Start Num: 29
Candidate Starts for GalaxyEater_51:
(Start: 29 @43702 has 1 MA's), (31, 43696), (81, 43546), (117, 43429), (131, 43381), (135, 43372), (140, 43363), (Start: 150 @43339 has 10 MA's), (164, 43282), (166, 43270), (Start: 181 @43216 has 4

MA's), (192, 43162), (201, 43123), (202, 43120), (226, 43030), (234, 43012), (236, 43000), (251, 42970), (256, 42958), (278, 42886), (294, 42820), (296, 42814), (304, 42766), (318, 42655), (326, 42616), (334, 42598), (364, 42436), (370, 42397), (394, 42304), (428, 42169), (441, 42115), (448, 42085), (463, 42025), (492, 41953), (501, 41911), (518, 41821), (542, 41698), (571, 41605),

Gene: Gallia_72 Start: 56704, Stop: 54734, Start Num: 59
Candidate Starts for Gallia_72:
(Start: 59 @56704 has 8 MA's), (97, 56566), (146, 56410), (190, 56266), (211, 56164), (253, 56059), (312, 55918), (327, 55831), (361, 55624), (366, 55603), (374, 55555), (392, 55459), (400, 55426), (415, 55369), (418, 55360), (467, 55171), (472, 55150), (513, 54988), (517, 54961), (530, 54898), (532, 54880),

Gene: Genamy16_63 Start: 39814, Stop: 41730, Start Num: 49
Candidate Starts for Genamy16_63:
(Start: 49 @39814 has 13 MA's), (Start: 50 @39817 has 61 MA's), (Start: 60 @39829 has 2 MA's), (72, 39877), (82, 39910), (119, 40051), (126, 40069), (132, 40096), (138, 40105), (Start: 168 @40177 has 1 MA's), (197, 40297), (210, 40360), (246, 40450), (258, 40477), (310, 40606), (315, 40630), (321, 40672), (322, 40684), (327, 40699), (332, 40720), (335, 40741), (338, 40762), (345, 40819), (349, 40837), (356, 40873), (366, 40915), (376, 40975), (400, 41071), (401, 41074), (457, 41251), (472, 41302), (498, 41392), (504, 41428), (506, 41434), (516, 41488), (526, 41527), (545, 41629), (550, 41644), (555, 41665),

Gene: Gibbin_62 Start: 41245, Stop: 43161, Start Num: 49
Candidate Starts for Gibbin_62:
(20, 41122), (22, 41131), (23, 41143), (34, 41176), (46, 41233), (Start: 49 @41245 has 13 MA's), (Start: 50 @41248 has 61 MA's), (Start: 60 @41260 has 2 MA's), (72, 41308), (82, 41341), (101, 41410), (126, 41500), (132, 41527), (138, 41536), (Start: 168 @41608 has 1 MA's), (189, 41695), (197, 41728), (210, 41791), (246, 41881), (310, 42037), (315, 42061), (321, 42103), (332, 42151), (335, 42172), (338, 42193), (345, 42250), (349, 42268), (356, 42304), (366, 42346), (376, 42406), (400, 42502), (401, 42505), (472, 42733), (498, 42823), (504, 42859), (506, 42865), (516, 42919), (526, 42958), (545, 43060), (550, 43075), (555, 43096),

Gene: Gibbles_56 Start: 50443, Stop: 48953, Start Num: 180
Candidate Starts for Gibbles_56:
(Start: 180 @50443 has 5 MA's), (199, 50350), (201, 50341), (205, 50329), (208, 50314), (211, 50296), (238, 50239), (268, 50167), (269, 50164), (292, 50071), (308, 50038), (314, 50005), (315, 50002), (319, 49981), (334, 49912), (338, 49876), (353, 49789), (366, 49738), (368, 49726), (369, 49723), (374, 49693), (396, 49621), (398, 49612), (441, 49489), (442, 49483), (500, 49309), (508, 49264), (514, 49234), (571, 48982),

Gene: Gimesa_67 Start: 47832, Stop: 49592, Start Num: 150
Candidate Starts for Gimesa_67:
(Start: 150 @47832 has 10 MA's), (173, 47901), (194, 47997), (Start: 198 @48006 has 29 MA's), (216, 48087), (232, 48132), (292, 48309), (310, 48333), (320, 48381), (331, 48441), (334, 48453), (343, 48519), (364, 48642), (368, 48666), (372, 48690), (392, 48894), (400, 48927), (404, 48942), (414, 48981), (415, 48984), (418, 48993), (442, 49062), (479, 49194), (504, 49317), (505, 49320), (512, 49347), (516, 49377), (518, 49383), (519, 49386), (523, 49404), (526, 49416), (555, 49551), (563, 49581),

Gene: Giuseppe_53 Start: 39718, Stop: 41661, Start Num: 50
Candidate Starts for Giuseppe_53:
(Start: 50 @39718 has 61 MA's), (63, 39745), (83, 39817), (97, 39871), (114, 39931), (118, 39949), (119, 39958), (137, 40009), (154, 40051), (Start: 168 @40087 has 1 MA's), (189, 40174), (209, 40267),

(211, 40282), (219, 40303), (267, 40405), (278, 40438), (285, 40462), (312, 40522), (327, 40609), (340, 40684), (356, 40774), (368, 40825), (369, 40828), (388, 40918), (392, 40936), (400, 40969), (414, 41023), (418, 41035), (421, 41053), (442, 41116), (465, 41200), (498, 41317), (504, 41365), (517, 41428), (532, 41512),

Gene: Gmala1_55 Start: 48612, Stop: 47071, Start Num: 175
Candidate Starts for Gmala1_55:
(175, 48612), (201, 48507), (208, 48480), (227, 48426), (236, 48408), (263, 48348), (266, 48339), (284, 48288), (289, 48264), (293, 48252), (295, 48246), (313, 48201), (315, 48186), (319, 48165), (320, 48162), (337, 48063), (341, 48036), (358, 47952), (364, 47928), (368, 47904), (374, 47871), (398, 47790), (414, 47742), (419, 47727), (447, 47634), (454, 47607), (455, 47604), (476, 47520), (485, 47484), (489, 47469), (499, 47424), (513, 47352), (514, 47346), (540, 47205), (571, 47106), (573, 47103),

Gene: GordDuk1_59 Start: 49176, Stop: 47635, Start Num: 175
Candidate Starts for GordDuk1_59:
(175, 49176), (201, 49071), (208, 49044), (227, 48990), (236, 48972), (263, 48912), (266, 48903), (284, 48852), (289, 48828), (293, 48816), (295, 48810), (313, 48765), (315, 48750), (319, 48729), (320, 48726), (337, 48627), (341, 48600), (358, 48516), (364, 48492), (368, 48468), (374, 48435), (375, 48426), (393, 48378), (398, 48354), (414, 48306), (447, 48198), (454, 48171), (476, 48084), (485, 48048), (489, 48033), (499, 47988), (513, 47916), (514, 47910), (571, 47670), (573, 47667),

Gene: GordTnk2_60 Start: 49330, Stop: 47789, Start Num: 175
Candidate Starts for GordTnk2_60:
(175, 49330), (201, 49225), (208, 49198), (227, 49144), (236, 49126), (263, 49066), (266, 49057), (284, 49006), (289, 48982), (293, 48970), (295, 48964), (313, 48919), (315, 48904), (319, 48883), (320, 48880), (337, 48781), (341, 48754), (358, 48670), (364, 48646), (368, 48622), (374, 48589), (398, 48508), (414, 48460), (447, 48352), (454, 48325), (455, 48322), (476, 48238), (485, 48202), (489, 48187), (499, 48142), (513, 48070), (514, 48064), (540, 47923), (571, 47824), (573, 47821),

Gene: Gorko_58 Start: 51458, Stop: 49926, Start Num: 169
Candidate Starts for Gorko_58:
(95, 51713), (107, 51662), (120, 51611), (139, 51557), (151, 51527), (Start: 160 @51494 has 3 MA's), (163, 51485), (Start: 169 @51458 has 29 MA's), (208, 51290), (219, 51248), (236, 51200), (242, 51188), (248, 51176), (252, 51170), (261, 51149), (273, 51122), (316, 50981), (334, 50894), (335, 50879), (337, 50867), (342, 50837), (349, 50786), (357, 50759), (368, 50708), (378, 50648), (379, 50645), (393, 50618), (403, 50576), (415, 50531), (456, 50396), (459, 50381), (464, 50360), (499, 50279), (500, 50276), (511, 50219), (512, 50213), (513, 50207), (514, 50201), (529, 50126), (534, 50087), (537, 50075), (538, 50072), (560, 49979), (567, 49964), (576, 49943),

Gene: GourdThymes_59 Start: 52332, Stop: 50800, Start Num: 169
Candidate Starts for GourdThymes_59:
(95, 52587), (107, 52536), (120, 52485), (139, 52431), (151, 52401), (Start: 160 @52368 has 3 MA's), (163, 52359), (Start: 169 @52332 has 29 MA's), (208, 52164), (219, 52122), (236, 52074), (242, 52062), (248, 52050), (252, 52044), (261, 52023), (273, 51996), (316, 51855), (334, 51768), (335, 51753), (337, 51741), (342, 51711), (349, 51660), (357, 51633), (368, 51582), (372, 51558), (375, 51540), (378, 51522), (379, 51519), (393, 51492), (403, 51450), (415, 51405), (456, 51270), (459, 51255), (464, 51234), (493, 51177), (499, 51153), (500, 51150), (511, 51093), (512, 51087), (513, 51081), (514, 51075), (525, 51024), (529, 51000), (534, 50961), (537, 50949), (538, 50946), (560, 50853), (567, 50838), (576, 50817),

Gene: GretelLyn_60 Start: 41292, Stop: 43208, Start Num: 49
Candidate Starts for GretelLyn_60:

(Start: 49 @41292 has 13 MA's), (Start: 50 @41295 has 61 MA's), (Start: 60 @41307 has 2 MA's), (72, 41355), (82, 41388), (101, 41457), (126, 41547), (132, 41574), (138, 41583), (Start: 168 @41655 has 1 MA's), (189, 41742), (197, 41775), (210, 41838), (246, 41928), (258, 41955), (310, 42084), (315, 42108), (321, 42150), (332, 42198), (335, 42219), (338, 42240), (345, 42297), (356, 42351), (366, 42393), (376, 42453), (400, 42549), (401, 42552), (457, 42729), (472, 42780), (498, 42870), (504, 42906), (506, 42912), (516, 42966), (526, 43005), (545, 43107), (550, 43122), (555, 43143),

Gene: GrootJr_74 Start: 56101, Stop: 54035, Start Num: 38
Candidate Starts for GrootJr_74:
(8, 56305), (9, 56293), (11, 56275), (Start: 38 @56101 has 37 MA's), (Start: 73 @55963 has 2 MA's), (77, 55939), (141, 55735), (157, 55690), (189, 55582), (215, 55468), (216, 55465), (253, 55375), (254, 55372), (279, 55312), (321, 55174), (323, 55156), (331, 55132), (349, 55009), (368, 54904), (392, 54778), (405, 54724), (440, 54598), (442, 54589), (448, 54565), (465, 54493), (467, 54487), (474, 54457), (491, 54400), (504, 54340), (517, 54277), (532, 54196),

Gene: Guillaume_57 Start: 52620, Stop: 51208, Start Num: 198
Candidate Starts for Guillaume_57:
(95, 52968), (128, 52839), (Start: 160 @52749 has 3 MA's), (Start: 198 @52620 has 29 MA's), (208, 52575), (236, 52485), (238, 52482), (240, 52476), (252, 52455), (278, 52392), (313, 52284), (316, 52266), (334, 52179), (335, 52164), (342, 52122), (358, 52041), (368, 51993), (375, 51951), (378, 51933), (379, 51930), (393, 51903), (405, 51852), (415, 51816), (425, 51765), (456, 51681), (461, 51660), (511, 51504), (512, 51498), (514, 51486), (537, 51360), (567, 51246),

Gene: Gumball_52 Start: 39923, Stop: 41866, Start Num: 50
Candidate Starts for Gumball_52:
(39, 39860), (Start: 50 @39923 has 61 MA's), (63, 39950), (83, 40022), (97, 40076), (114, 40136), (119, 40163), (137, 40214), (154, 40256), (Start: 168 @40292 has 1 MA's), (189, 40379), (209, 40472), (211, 40487), (219, 40508), (267, 40610), (278, 40643), (285, 40667), (312, 40727), (327, 40814), (340, 40889), (356, 40979), (368, 41030), (369, 41033), (388, 41123), (392, 41141), (400, 41174), (418, 41240), (421, 41258), (442, 41321), (465, 41405), (498, 41522), (504, 41570), (517, 41633), (532, 41717),

Gene: GurgleFerb_47 Start: 40997, Stop: 38748, Start Num: 24
Candidate Starts for GurgleFerb_47:
(Start: 24 @40997 has 4 MA's), (37, 40964), (57, 40880), (107, 40691), (112, 40679), (141, 40589), (152, 40562), (158, 40541), (162, 40514), (164, 40511), (166, 40499), (177, 40460), (208, 40322), (226, 40259), (233, 40244), (236, 40229), (245, 40211), (251, 40199), (256, 40187), (264, 40166), (277, 40118), (278, 40115), (283, 40091), (294, 40049), (296, 40043), (307, 39953), (310, 39929), (334, 39806), (341, 39752), (365, 39641), (368, 39620), (370, 39605), (380, 39545), (393, 39470), (394, 39467), (431, 39302), (463, 39182), (516, 38984), (518, 38978), (530, 38918), (542, 38855), (551, 38825), (557, 38801), (558, 38795),

Gene: Hail2Pitt_56 Start: 53096, Stop: 51684, Start Num: 198
Candidate Starts for Hail2Pitt_56:
(95, 53444), (128, 53315), (159, 53228), (Start: 160 @53225 has 3 MA's), (Start: 198 @53096 has 29 MA's), (208, 53051), (236, 52961), (238, 52958), (240, 52952), (252, 52931), (278, 52868), (313, 52760), (316, 52742), (334, 52655), (335, 52640), (342, 52598), (358, 52517), (368, 52469), (375, 52427), (378, 52409), (379, 52406), (393, 52379), (405, 52328), (415, 52292), (425, 52241), (456, 52157), (461, 52136), (511, 51980), (512, 51974), (514, 51962), (537, 51836), (567, 51722),

Gene: Harambe_57 Start: 52887, Stop: 51475, Start Num: 198
Candidate Starts for Harambe_57:

(95, 53235), (128, 53106), (159, 53019), (Start: 160 @53016 has 3 MA's), (Start: 198 @52887 has 29 MA's), (208, 52842), (236, 52752), (238, 52749), (240, 52743), (252, 52722), (278, 52659), (313, 52551), (316, 52533), (334, 52446), (335, 52431), (342, 52389), (358, 52308), (368, 52260), (375, 52218), (378, 52200), (379, 52197), (393, 52170), (405, 52119), (415, 52083), (425, 52032), (456, 51948), (461, 51927), (511, 51771), (512, 51765), (514, 51753), (537, 51627), (567, 51513),

Gene: Hawkeye_56 Start: 39560, Stop: 41506, Start Num: 50
Candidate Starts for Hawkeye_56:
(Start: 50 @39560 has 61 MA's), (74, 39638), (94, 39707), (97, 39716), (103, 39746), (114, 39776), (119, 39803), (124, 39815), (154, 39893), (158, 39905), (189, 40016), (197, 40049), (211, 40124), (244, 40202), (259, 40232), (271, 40268), (287, 40322), (312, 40373), (334, 40487), (348, 40595), (367, 40673), (368, 40676), (372, 40700), (374, 40712), (388, 40769), (390, 40775), (392, 40787), (397, 40808), (400, 40820), (409, 40856), (418, 40886), (421, 40904), (442, 40967), (465, 41051), (474, 41087), (488, 41132), (498, 41168), (504, 41216), (506, 41222), (517, 41279), (566, 41483), (568, 41489), (571, 41492),

Gene: HayZem_62 Start: 52710, Stop: 51079, Start Num: 122
Candidate Starts for HayZem_62:
(Start: 122 @52710 has 3 MA's), (126, 52698), (147, 52647), (149, 52641), (167, 52584), (208, 52443), (219, 52401), (223, 52389), (236, 52353), (238, 52350), (252, 52323), (270, 52287), (273, 52275), (278, 52260), (313, 52152), (334, 52047), (335, 52032), (358, 51909), (368, 51861), (372, 51837), (375, 51819), (393, 51771), (405, 51720), (415, 51684), (420, 51666), (456, 51549), (481, 51498), (493, 51456), (504, 51396), (514, 51354), (525, 51303), (529, 51279), (567, 51117), (576, 51096),

Gene: Hello_57 Start: 52849, Stop: 51437, Start Num: 198
Candidate Starts for Hello_57:
(95, 53197), (128, 53068), (159, 52981), (Start: 160 @52978 has 3 MA's), (Start: 198 @52849 has 29 MA's), (208, 52804), (236, 52714), (238, 52711), (240, 52705), (252, 52684), (278, 52621), (313, 52513), (316, 52495), (334, 52408), (335, 52393), (342, 52351), (358, 52270), (368, 52222), (375, 52180), (378, 52162), (379, 52159), (393, 52132), (405, 52081), (415, 52045), (425, 51994), (456, 51910), (461, 51889), (511, 51733), (512, 51727), (514, 51715), (537, 51589), (567, 51475),

Gene: Helpful_56 Start: 40102, Stop: 42045, Start Num: 50
Candidate Starts for Helpful_56:
(35, 40033), (Start: 50 @40102 has 61 MA's), (63, 40129), (83, 40201), (97, 40255), (114, 40315), (118, 40333), (119, 40342), (137, 40393), (154, 40435), (Start: 168 @40471 has 1 MA's), (189, 40558), (209, 40651), (211, 40666), (219, 40687), (267, 40789), (278, 40822), (285, 40846), (312, 40906), (327, 40993), (340, 41068), (356, 41158), (368, 41209), (369, 41212), (388, 41302), (392, 41320), (400, 41353), (414, 41407), (418, 41419), (421, 41437), (442, 41500), (465, 41584), (498, 41701), (504, 41749), (517, 41812), (532, 41896),

Gene: Hollow_57 Start: 53503, Stop: 51797, Start Num: 111
Candidate Starts for Hollow_57:
(Start: 111 @53503 has 9 MA's), (Start: 115 @53491 has 2 MA's), (145, 53392), (Start: 153 @53371 has 1 MA's), (171, 53305), (199, 53206), (208, 53170), (213, 53146), (217, 53137), (219, 53128), (236, 53080), (248, 53056), (270, 53014), (275, 52999), (278, 52984), (293, 52927), (294, 52924), (314, 52864), (315, 52861), (328, 52795), (330, 52792), (335, 52756), (336, 52753), (338, 52735), (339, 52726), (342, 52714), (348, 52666), (358, 52633), (364, 52609), (368, 52585), (372, 52561), (393, 52495), (415, 52396), (455, 52264), (456, 52261), (499, 52144), (500, 52141), (511, 52084), (514, 52066), (534, 51949), (535, 51946), (538, 51934), (567, 51835), (576, 51814),

Gene: HomeFry_79 Start: 55194, Stop: 53140, Start Num: 38
Candidate Starts for HomeFry_79:

(Start: 38 @55194 has 37 MA's), (67, 55074), (75, 55041), (103, 54945), (105, 54942), (157, 54792), (189, 54684), (197, 54651), (201, 54630), (207, 54600), (216, 54567), (253, 54477), (279, 54414), (323, 54258), (335, 54207), (349, 54111), (353, 54078), (368, 54015), (374, 53979), (392, 53892), (408, 53823), (414, 53805), (442, 53700), (460, 53631), (465, 53598), (467, 53592), (474, 53562), (479, 53547), (491, 53505), (504, 53445), (517, 53382), (532, 53301), (539, 53277), (553, 53217),

Gene: Hotorobo_59 Start: 52337, Stop: 50805, Start Num: 169
Candidate Starts for Hotorobo_59:
(95, 52592), (107, 52541), (120, 52490), (139, 52436), (151, 52406), (Start: 160 @52373 has 3 MA's), (163, 52364), (Start: 169 @52337 has 29 MA's), (208, 52169), (219, 52127), (236, 52079), (242, 52067), (248, 52055), (252, 52049), (261, 52028), (273, 52001), (316, 51860), (334, 51773), (335, 51758), (337, 51746), (342, 51716), (349, 51665), (357, 51638), (368, 51587), (378, 51527), (379, 51524), (393, 51497), (403, 51455), (415, 51410), (456, 51275), (459, 51260), (464, 51239), (499, 51158), (500, 51155), (511, 51098), (512, 51092), (513, 51086), (514, 51080), (529, 51005), (534, 50966), (537, 50954), (538, 50951), (560, 50858), (567, 50843), (576, 50822),

Gene: HubbaBubba_67 Start: 51701, Stop: 49620, Start Num: 38
Candidate Starts for HubbaBubba_67:
(9, 51893), (11, 51875), (Start: 38 @51701 has 37 MA's), (98, 51470), (142, 51332), (189, 51182), (197, 51149), (215, 51068), (216, 51065), (253, 50975), (254, 50972), (279, 50912), (323, 50756), (349, 50609), (368, 50501), (372, 50477), (392, 50375), (405, 50321), (408, 50306), (426, 50225), (442, 50186), (458, 50123), (465, 50084), (467, 50078), (474, 50048), (504, 49931), (517, 49868), (530, 49805), (532, 49787), (553, 49703),

Gene: IDyn_69 Start: 52448, Stop: 50367, Start Num: 38
Candidate Starts for IDyn_69:
(9, 52640), (11, 52622), (18, 52547), (Start: 38 @52448 has 37 MA's), (98, 52217), (142, 52079), (189, 51929), (197, 51896), (212, 51821), (215, 51815), (216, 51812), (253, 51722), (254, 51719), (279, 51659), (323, 51503), (349, 51356), (368, 51248), (372, 51224), (392, 51122), (405, 51068), (408, 51053), (426, 50972), (442, 50933), (458, 50870), (465, 50831), (467, 50825), (474, 50795), (504, 50678), (517, 50615), (530, 50552), (532, 50534), (553, 50450),

Gene: Indlulamithi_65 Start: 45619, Stop: 47481, Start Num: 89
Candidate Starts for Indlulamithi_65:
(Start: 89 @45619 has 1 MA's), (92, 45634), (158, 45862), (178, 45922), (185, 45964), (194, 46000), (203, 46033), (206, 46051), (221, 46111), (229, 46129), (241, 46162), (261, 46201), (287, 46291), (292, 46312), (293, 46315), (310, 46336), (342, 46513), (351, 46582), (361, 46618), (366, 46639), (368, 46651), (379, 46717), (391, 46759), (392, 46765), (400, 46798), (404, 46813), (409, 46837), (413, 46840), (418, 46864), (420, 46873), (449, 46960), (479, 47065), (509, 47206), (530, 47314), (532, 47335), (536, 47350), (549, 47401), (565, 47458), (568, 47464), (574, 47476),

Gene: Jalebi_59 Start: 41637, Stop: 43553, Start Num: 49
Candidate Starts for Jalebi_59:
(Start: 49 @41637 has 13 MA's), (Start: 50 @41640 has 61 MA's), (Start: 60 @41652 has 2 MA's), (72, 41700), (101, 41802), (126, 41892), (132, 41919), (138, 41928), (Start: 168 @42000 has 1 MA's), (197, 42120), (210, 42183), (246, 42273), (258, 42300), (310, 42429), (315, 42453), (321, 42495), (332, 42543), (335, 42564), (338, 42585), (345, 42642), (356, 42696), (366, 42738), (376, 42798), (400, 42894), (401, 42897), (457, 43074), (472, 43125), (496, 43212), (498, 43215), (504, 43251), (506, 43257), (516, 43311), (526, 43350), (545, 43452), (550, 43467), (555, 43488),

Gene: Jamemuya19_59 Start: 39419, Stop: 41335, Start Num: 49
Candidate Starts for Jamemuya19_59:

(Start: 49 @39419 has 13 MA's), (Start: 50 @39422 has 61 MA's), (Start: 60 @39434 has 2 MA's), (72, 39482), (82, 39515), (126, 39674), (132, 39701), (138, 39710), (Start: 168 @39782 has 1 MA's), (197, 39902), (210, 39965), (246, 40055), (258, 40082), (310, 40211), (315, 40235), (321, 40277), (322, 40289), (327, 40304), (332, 40325), (335, 40346), (338, 40367), (345, 40424), (349, 40442), (356, 40478), (366, 40520), (376, 40580), (400, 40676), (401, 40679), (457, 40856), (472, 40907), (498, 40997), (504, 41033), (506, 41039), (516, 41093), (526, 41132), (545, 41234), (550, 41249), (555, 41270),

Gene: Jams_57 Start: 52059, Stop: 50647, Start Num: 198
Candidate Starts for Jams_57:
(95, 52407), (128, 52278), (Start: 160 @52188 has 3 MA's), (Start: 198 @52059 has 29 MA's), (208, 52014), (236, 51924), (238, 51921), (240, 51915), (252, 51894), (278, 51831), (301, 51753), (313, 51723), (316, 51705), (334, 51618), (335, 51603), (342, 51561), (358, 51480), (368, 51432), (375, 51390), (378, 51372), (379, 51369), (393, 51342), (405, 51291), (415, 51255), (425, 51204), (456, 51120), (461, 51099), (511, 50943), (512, 50937), (514, 50925), (537, 50799), (567, 50685),

Gene: Jasmine_49 Start: 42488, Stop: 40368, Start Num: 52
Candidate Starts for Jasmine_49:
(Start: 52 @42488 has 10 MA's), (87, 42395), (107, 42311), (112, 42299), (141, 42209), (152, 42182), (158, 42161), (162, 42134), (177, 42080), (226, 41879), (233, 41864), (236, 41849), (245, 41831), (251, 41819), (256, 41807), (264, 41786), (277, 41738), (278, 41735), (283, 41711), (294, 41669), (296, 41663), (307, 41573), (310, 41549), (334, 41426), (341, 41372), (365, 41261), (368, 41240), (370, 41225), (380, 41165), (393, 41090), (394, 41087), (431, 40922), (456, 40835), (463, 40802), (516, 40604), (518, 40598), (530, 40538), (542, 40475), (551, 40445), (557, 40421), (558, 40415),

Gene: Jellybones_61 Start: 53432, Stop: 51900, Start Num: 169
Candidate Starts for Jellybones_61:
(95, 53687), (107, 53636), (128, 53558), (139, 53531), (151, 53501), (Start: 160 @53468 has 3 MA's), (163, 53459), (Start: 169 @53432 has 29 MA's), (199, 53300), (208, 53264), (219, 53222), (225, 53204), (236, 53174), (242, 53162), (252, 53144), (273, 53096), (334, 52868), (335, 52853), (337, 52841), (342, 52811), (349, 52760), (368, 52682), (372, 52658), (375, 52640), (378, 52622), (379, 52619), (389, 52610), (393, 52592), (403, 52550), (415, 52505), (420, 52487), (456, 52370), (459, 52355), (464, 52334), (493, 52277), (499, 52253), (500, 52250), (511, 52193), (512, 52187), (514, 52175), (525, 52124), (529, 52100), (534, 52061), (537, 52049), (538, 52046), (560, 51953), (567, 51938), (576, 51917),

Gene: Jifall16_71 Start: 56412, Stop: 54346, Start Num: 38
Candidate Starts for Jifall16_71:
(2, 56910), (5, 56709), (8, 56616), (9, 56604), (11, 56586), (Start: 38 @56412 has 37 MA's), (Start: 73 @56274 has 2 MA's), (77, 56250), (141, 56046), (157, 56001), (189, 55893), (215, 55779), (216, 55776), (253, 55686), (254, 55683), (279, 55623), (321, 55485), (323, 55467), (331, 55443), (349, 55320), (368, 55215), (392, 55089), (405, 55035), (440, 54909), (442, 54900), (448, 54876), (465, 54804), (467, 54798), (474, 54768), (491, 54711), (504, 54651), (517, 54588), (532, 54507),

Gene: John316_62 Start: 53495, Stop: 51963, Start Num: 169
Candidate Starts for John316_62:
(95, 53750), (107, 53699), (120, 53648), (139, 53594), (151, 53564), (Start: 160 @53531 has 3 MA's), (163, 53522), (Start: 169 @53495 has 29 MA's), (208, 53327), (219, 53285), (236, 53237), (242, 53225), (248, 53213), (252, 53207), (261, 53186), (273, 53159), (334, 52931), (335, 52916), (337, 52904), (342, 52874), (349, 52823), (357, 52796), (368, 52745), (375, 52703), (378, 52685), (379, 52682), (393, 52655), (403, 52613), (415, 52568), (456, 52433), (459, 52418), (464, 52397), (499, 52316), (500, 52313), (511, 52256), (512, 52250), (513, 52244), (514, 52238), (529, 52163), (534, 52124), (537, 52112), (538, 52109), (560, 52016), (567, 52001), (576, 51980),

Gene: Jormungandr_57 Start: 52602, Stop: 51190, Start Num: 198
Candidate Starts for Jormungandr_57:
(95, 52950), (128, 52821), (Start: 160 @52731 has 3 MA's), (Start: 198 @52602 has 29 MA's), (208, 52557), (236, 52467), (238, 52464), (240, 52458), (252, 52437), (278, 52374), (313, 52266), (316, 52248), (334, 52161), (335, 52146), (342, 52104), (358, 52023), (368, 51975), (375, 51933), (378, 51915), (379, 51912), (393, 51885), (405, 51834), (415, 51798), (425, 51747), (456, 51663), (461, 51642), (511, 51486), (512, 51480), (514, 51468), (537, 51342), (567, 51228),

Gene: Jumbo_57 Start: 53259, Stop: 51742, Start Num: 181
Candidate Starts for Jumbo_57:
(Start: 181 @53259 has 4 MA's), (201, 53163), (205, 53151), (208, 53136), (263, 53004), (273, 52980), (275, 52977), (283, 52944), (315, 52839), (319, 52818), (333, 52746), (341, 52689), (362, 52587), (368, 52557), (388, 52488), (414, 52395), (419, 52380), (424, 52344), (441, 52311), (448, 52281), (454, 52260), (464, 52218), (469, 52206), (490, 52131), (514, 52014), (520, 51981), (529, 51939), (540, 51873), (571, 51774), (573, 51771),

Gene: Kabluna_75 Start: 55961, Stop: 53874, Start Num: 38
Candidate Starts for Kabluna_75:
(Start: 38 @55961 has 37 MA's), (67, 55841), (Start: 78 @55796 has 1 MA's), (80, 55793), (157, 55538), (189, 55430), (201, 55376), (216, 55313), (253, 55223), (254, 55220), (262, 55196), (279, 55160), (321, 55022), (323, 55004), (327, 54995), (331, 54980), (349, 54857), (363, 54773), (368, 54746), (372, 54722), (392, 54623), (405, 54569), (420, 54515), (426, 54473), (442, 54434), (460, 54365), (465, 54332), (474, 54296), (488, 54251), (491, 54239), (504, 54179), (517, 54116), (553, 53951), (559, 53927),

Gene: Kampe_58 Start: 50421, Stop: 48931, Start Num: 180
Candidate Starts for Kampe_58:
(Start: 180 @50421 has 5 MA's), (199, 50328), (201, 50319), (205, 50307), (208, 50292), (211, 50274), (238, 50217), (268, 50145), (269, 50142), (292, 50049), (308, 50016), (314, 49983), (315, 49980), (319, 49959), (334, 49890), (338, 49854), (353, 49767), (368, 49704), (369, 49701), (374, 49671), (396, 49599), (398, 49590), (441, 49467), (442, 49461), (490, 49329), (500, 49287), (508, 49242), (514, 49212), (571, 48960),

Gene: KandZ_52 Start: 39857, Stop: 41800, Start Num: 50
Candidate Starts for KandZ_52:
(39, 39794), (Start: 50 @39857 has 61 MA's), (63, 39884), (83, 39956), (97, 40010), (114, 40070), (119, 40097), (137, 40148), (154, 40190), (Start: 168 @40226 has 1 MA's), (189, 40313), (209, 40406), (211, 40421), (219, 40442), (267, 40544), (278, 40577), (285, 40601), (312, 40661), (327, 40748), (340, 40823), (356, 40913), (368, 40964), (369, 40967), (388, 41057), (392, 41075), (400, 41108), (418, 41174), (421, 41192), (442, 41255), (465, 41339), (498, 41456), (504, 41504), (517, 41567), (532, 41651),

Gene: Kaseim_57 Start: 52044, Stop: 50632, Start Num: 198
Candidate Starts for Kaseim_57:
(95, 52392), (128, 52263), (Start: 160 @52173 has 3 MA's), (Start: 168 @52137 has 1 MA's), (Start: 198 @52044 has 29 MA's), (208, 51999), (236, 51909), (238, 51906), (240, 51900), (252, 51879), (278, 51816), (313, 51708), (316, 51690), (334, 51603), (335, 51588), (342, 51546), (358, 51465), (368, 51417), (375, 51375), (378, 51357), (379, 51354), (393, 51327), (405, 51276), (415, 51240), (425, 51189), (456, 51105), (461, 51084), (511, 50928), (512, 50922), (514, 50910), (537, 50784), (567, 50670),

Gene: Katyusha_57 Start: 53319, Stop: 51616, Start Num: 111

Candidate Starts for Katyusha_57:
(Start: 111 @53319 has 9 MA's), (Start: 115 @53307 has 2 MA's), (171, 53124), (Start: 198 @53034 has 29 MA's), (199, 53025), (208, 52989), (213, 52965), (217, 52956), (219, 52947), (236, 52899), (248, 52875), (278, 52803), (279, 52800), (284, 52782), (294, 52743), (328, 52614), (335, 52575), (336, 52572), (338, 52554), (339, 52545), (342, 52533), (348, 52485), (358, 52452), (368, 52404), (372, 52380), (393, 52314), (415, 52215), (446, 52116), (448, 52107), (455, 52083), (456, 52080), (493, 51987), (499, 51963), (500, 51960), (511, 51903), (514, 51885), (534, 51768), (535, 51765), (538, 51753), (567, 51654), (576, 51633),

Gene: Kelzog_61 Start: 52344, Stop: 50812, Start Num: 169
Candidate Starts for Kelzog_61:
(95, 52599), (107, 52548), (120, 52497), (139, 52443), (151, 52413), (Start: 160 @52380 has 3 MA's), (163, 52371), (Start: 169 @52344 has 29 MA's), (208, 52176), (219, 52134), (236, 52086), (242, 52074), (248, 52062), (252, 52056), (261, 52035), (273, 52008), (316, 51867), (334, 51780), (335, 51765), (337, 51753), (342, 51723), (349, 51672), (357, 51645), (368, 51594), (378, 51534), (379, 51531), (393, 51504), (403, 51462), (415, 51417), (420, 51399), (456, 51282), (459, 51267), (464, 51246), (493, 51189), (499, 51165), (511, 51105), (512, 51099), (513, 51093), (514, 51087), (525, 51036), (529, 51012), (534, 50973), (537, 50961), (538, 50958), (560, 50865), (567, 50850), (576, 50829),

Gene: KidneyBean_72 Start: 56536, Stop: 54470, Start Num: 38
Candidate Starts for KidneyBean_72:
(2, 57034), (5, 56833), (8, 56740), (9, 56728), (11, 56710), (Start: 38 @56536 has 37 MA's), (Start: 73 @56398 has 2 MA's), (77, 56374), (141, 56170), (157, 56125), (189, 56017), (215, 55903), (216, 55900), (253, 55810), (254, 55807), (279, 55747), (321, 55609), (323, 55591), (331, 55567), (349, 55444), (368, 55339), (392, 55213), (405, 55159), (440, 55033), (442, 55024), (448, 55000), (465, 54928), (467, 54922), (474, 54892), (491, 54835), (504, 54775), (517, 54712), (532, 54631),

Gene: Kimchi1738_73 Start: 52700, Stop: 50775, Start Num: 59
Candidate Starts for Kimchi1738_73:
(33, 52793), (Start: 59 @52700 has 8 MA's), (108, 52529), (123, 52475), (189, 52271), (229, 52115), (253, 52064), (254, 52061), (274, 52019), (322, 51857), (325, 51848), (392, 51491), (400, 51458), (449, 51272), (491, 51119), (506, 51053), (509, 51041), (513, 51023), (517, 50996), (530, 50933), (536, 50900), (554, 50828),

Gene: Konstantine_65 Start: 46884, Stop: 48941, Start Num: 50
Candidate Starts for Konstantine_65:
(Start: 50 @46884 has 61 MA's), (70, 46944), (71, 46947), (Start: 96 @47040 has 3 MA's), (100, 47052), (103, 47073), (143, 47196), (144, 47199), (148, 47208), (158, 47241), (161, 47262), (172, 47310), (182, 47352), (197, 47415), (201, 47436), (203, 47442), (218, 47496), (287, 47682), (289, 47694), (299, 47712), (310, 47727), (312, 47733), (368, 48051), (369, 48054), (376, 48099), (390, 48150), (392, 48162), (414, 48252), (418, 48264), (423, 48297), (436, 48321), (437, 48330), (467, 48420), (475, 48453), (503, 48564), (504, 48567), (505, 48570), (506, 48573), (516, 48627), (530, 48693), (532, 48711), (578, 48888),

Gene: Kurt_72 Start: 56722, Stop: 54656, Start Num: 38
Candidate Starts for Kurt_72:
(2, 57220), (5, 57019), (8, 56926), (9, 56914), (11, 56896), (Start: 38 @56722 has 37 MA's), (Start: 73 @56584 has 2 MA's), (77, 56560), (141, 56356), (157, 56311), (189, 56203), (215, 56089), (216, 56086), (253, 55996), (254, 55993), (279, 55933), (321, 55795), (323, 55777), (331, 55753), (349, 55630), (368, 55525), (392, 55399), (405, 55345), (440, 55219), (442, 55210), (448, 55186), (465, 55114), (467, 55108), (474, 55078), (491, 55021), (504, 54961), (517, 54898), (532, 54817),

Gene: Kvothe_56 Start: 53206, Stop: 51515, Start Num: 115
Candidate Starts for Kvothe_56:
(Start: 111 @53218 has 9 MA's), (Start: 115 @53206 has 2 MA's), (171, 53023), (Start: 198 @52933 has 29 MA's), (199, 52924), (208, 52888), (213, 52864), (217, 52855), (219, 52846), (236, 52798), (248, 52774), (278, 52702), (284, 52681), (293, 52645), (294, 52642), (328, 52513), (330, 52510), (335, 52474), (336, 52471), (338, 52453), (339, 52444), (342, 52432), (348, 52384), (358, 52351), (368, 52303), (372, 52279), (393, 52213), (415, 52114), (446, 52015), (448, 52006), (455, 51982), (456, 51979), (493, 51886), (499, 51862), (500, 51859), (511, 51802), (514, 51784), (534, 51667), (535, 51664), (538, 51652), (567, 51553), (576, 51532),

Gene: Labelle_76 Start: 49171, Stop: 51204, Start Num: 53
Candidate Starts for Labelle_76:
(Start: 53 @49171 has 3 MA's), (63, 49195), (Start: 78 @49258 has 1 MA's), (98, 49324), (112, 49375), (113, 49378), (148, 49486), (158, 49519), (172, 49558), (179, 49582), (193, 49645), (197, 49663), (Start: 198 @49666 has 29 MA's), (201, 49684), (203, 49690), (223, 49759), (235, 49786), (237, 49798), (255, 49831), (287, 49933), (322, 50056), (331, 50086), (345, 50191), (349, 50209), (367, 50299), (368, 50302), (381, 50404), (382, 50443), (390, 50470), (392, 50482), (404, 50530), (407, 50548), (414, 50575), (418, 50587), (420, 50596), (467, 50734), (479, 50779), (503, 50884), (530, 51013), (536, 51046), (540, 51064), (554, 51118), (567, 51157),

Gene: LadyJasley_54 Start: 43617, Stop: 41323, Start Num: 15
Candidate Starts for LadyJasley_54:
(14, 43629), (Start: 15 @43617 has 1 MA's), (16, 43590), (19, 43545), (44, 43449), (65, 43368), (Start: 78 @43305 has 1 MA's), (109, 43197), (121, 43149), (148, 43077), (Start: 150 @43071 has 10 MA's), (188, 42909), (201, 42855), (202, 42852), (233, 42747), (236, 42732), (251, 42702), (256, 42690), (276, 42630), (278, 42618), (294, 42552), (296, 42546), (306, 42471), (319, 42384), (334, 42330), (364, 42168), (370, 42129), (394, 42036), (395, 42027), (431, 41877), (463, 41757), (499, 41652), (516, 41562), (518, 41556), (542, 41433),

Gene: Lahirium_57 Start: 53124, Stop: 51712, Start Num: 198
Candidate Starts for Lahirium_57:
(95, 53472), (128, 53343), (Start: 160 @53253 has 3 MA's), (Start: 198 @53124 has 29 MA's), (208, 53079), (236, 52989), (238, 52986), (240, 52980), (252, 52959), (278, 52896), (313, 52788), (316, 52770), (334, 52683), (335, 52668), (342, 52626), (358, 52545), (368, 52497), (375, 52455), (378, 52437), (379, 52434), (393, 52407), (405, 52356), (415, 52320), (425, 52269), (456, 52185), (461, 52164), (511, 52008), (512, 52002), (514, 51990), (537, 51864), (567, 51750),

Gene: Lambo_58 Start: 40249, Stop: 42159, Start Num: 50
Candidate Starts for Lambo_58:
(Start: 49 @40246 has 13 MA's), (Start: 50 @40249 has 61 MA's), (Start: 60 @40261 has 2 MA's), (72, 40309), (82, 40342), (132, 40528), (141, 40543), (Start: 168 @40609 has 1 MA's), (189, 40696), (197, 40729), (217, 40810), (219, 40819), (222, 40828), (289, 41002), (291, 41008), (310, 41035), (327, 41128), (332, 41149), (334, 41155), (335, 41170), (338, 41191), (345, 41248), (349, 41266), (356, 41302), (366, 41344), (376, 41404), (400, 41500), (401, 41503), (472, 41731), (498, 41821), (504, 41857), (506, 41863), (516, 41917), (526, 41956), (545, 42058), (550, 42073), (555, 42094),

Gene: LavAbarElk_60 Start: 40030, Stop: 41943, Start Num: 50
Candidate Starts for LavAbarElk_60:
(20, 39904), (22, 39913), (23, 39925), (34, 39958), (Start: 49 @40027 has 13 MA's), (Start: 50 @40030 has 61 MA's), (Start: 60 @40042 has 2 MA's), (72, 40090), (82, 40123), (101, 40192), (126, 40282), (132, 40309), (138, 40318), (Start: 168 @40390 has 1 MA's), (197, 40510), (210, 40573), (246, 40663), (258, 40690), (310, 40819), (315, 40843), (321, 40885), (327, 40912), (332, 40933), (335, 40954), (338, 40975), (345, 41032), (349, 41050), (356, 41086), (366, 41128), (376, 41188), (400, 41284),

(401, 41287), (472, 41515), (498, 41605), (504, 41641), (506, 41647), (516, 41701), (526, 41740), (545, 41842), (550, 41857), (555, 41878),

Gene: Leopard_64 Start: 46071, Stop: 48014, Start Num: 50
Candidate Starts for Leopard_64:
(Start: 50 @46071 has 61 MA's), (62, 46092), (69, 46122), (Start: 96 @46221 has 3 MA's), (114, 46284), (132, 46356), (138, 46365), (158, 46413), (234, 46686), (235, 46689), (290, 46851), (312, 46887), (322, 46959), (325, 46968), (334, 47001), (342, 47058), (344, 47070), (356, 47139), (359, 47148), (364, 47166), (368, 47190), (390, 47286), (392, 47298), (400, 47331), (413, 47373), (424, 47436), (461, 47541), (513, 47757), (516, 47781), (517, 47784), (527, 47826), (531, 47856), (536, 47880), (573, 47997),

Gene: Lidong_57 Start: 52859, Stop: 51447, Start Num: 198
Candidate Starts for Lidong_57:
(95, 53207), (128, 53078), (Start: 160 @52988 has 3 MA's), (Start: 198 @52859 has 29 MA's), (208, 52814), (236, 52724), (238, 52721), (240, 52715), (252, 52694), (278, 52631), (301, 52553), (313, 52523), (316, 52505), (334, 52418), (335, 52403), (342, 52361), (358, 52280), (368, 52232), (375, 52190), (378, 52172), (379, 52169), (393, 52142), (405, 52091), (415, 52055), (425, 52004), (456, 51920), (461, 51899), (511, 51743), (512, 51737), (514, 51725), (537, 51599), (567, 51485),

Gene: Lila22_61 Start: 41200, Stop: 43113, Start Num: 50
Candidate Starts for Lila22_61:
(Start: 49 @41197 has 13 MA's), (Start: 50 @41200 has 61 MA's), (Start: 60 @41212 has 2 MA's), (72, 41260), (82, 41293), (132, 41479), (141, 41494), (Start: 168 @41560 has 1 MA's), (189, 41647), (196, 41677), (197, 41680), (210, 41743), (217, 41761), (219, 41770), (246, 41833), (258, 41860), (310, 41989), (315, 42013), (321, 42055), (332, 42103), (335, 42124), (338, 42145), (345, 42202), (356, 42256), (366, 42298), (376, 42358), (400, 42454), (401, 42457), (457, 42634), (472, 42685), (498, 42775), (504, 42811), (506, 42817), (516, 42871), (526, 42910), (545, 43012), (550, 43027), (555, 43048),

Gene: LilyPad_52 Start: 37853, Stop: 39895, Start Num: 52
Candidate Starts for LilyPad_52:
(Start: 52 @37853 has 10 MA's), (101, 38006), (116, 38066), (158, 38180), (Start: 168 @38204 has 1 MA's), (187, 38288), (197, 38324), (258, 38492), (261, 38498), (267, 38519), (294, 38606), (327, 38717), (335, 38759), (338, 38780), (349, 38855), (368, 38939), (371, 38960), (374, 38975), (387, 39020), (388, 39023), (391, 39035), (392, 39041), (393, 39044), (401, 39077), (414, 39131), (420, 39152), (424, 39182), (426, 39194), (429, 39227), (432, 39296), (440, 39353), (452, 39401), (465, 39446), (472, 39473), (509, 39620), (521, 39680), (530, 39728), (532, 39749), (546, 39806), (551, 39824), (555, 39839), (569, 39881),

Gene: Linetti_59 Start: 53022, Stop: 51613, Start Num: 198
Candidate Starts for Linetti_59:
(95, 53400), (107, 53349), (120, 53298), (139, 53244), (151, 53214), (Start: 160 @53181 has 3 MA's), (163, 53172), (Start: 169 @53145 has 29 MA's), (Start: 198 @53022 has 29 MA's), (208, 52977), (219, 52935), (236, 52887), (238, 52884), (240, 52878), (242, 52875), (248, 52863), (252, 52857), (270, 52821), (273, 52809), (275, 52806), (313, 52686), (316, 52668), (328, 52605), (334, 52581), (335, 52566), (342, 52524), (357, 52446), (368, 52395), (378, 52335), (379, 52332), (389, 52323), (393, 52305), (403, 52263), (415, 52218), (456, 52083), (459, 52068), (464, 52047), (499, 51966), (500, 51963), (511, 51906), (512, 51900), (514, 51888), (525, 51837), (528, 51822), (529, 51813), (534, 51774), (537, 51762), (560, 51666), (567, 51651),

Gene: LittleFella_57 Start: 39855, Stop: 41873, Start Num: 50
Candidate Starts for LittleFella_57:

(Start: 50 @39855 has 61 MA's), (110, 40053), (113, 40062), (114, 40065), (121, 40095), (132, 40137), (138, 40146), (Start: 170 @40224 has 2 MA's), (173, 40236), (189, 40305), (197, 40338), (Start: 198 @40341 has 29 MA's), (261, 40521), (286, 40602), (294, 40629), (325, 40734), (335, 40776), (338, 40797), (368, 40956), (372, 40980), (387, 41037), (388, 41040), (392, 41058), (402, 41097), (417, 41157), (420, 41169), (422, 41187), (424, 41199), (427, 41220), (434, 41307), (435, 41310), (436, 41313), (452, 41379), (465, 41424), (472, 41451), (498, 41544), (513, 41619), (515, 41631), (516, 41643), (519, 41652), (521, 41661), (530, 41709), (532, 41727), (546, 41784), (555, 41817), (571, 41856),

Gene: Lizzo_59 Start: 52326, Stop: 50794, Start Num: 169
Candidate Starts for Lizzo_59:
(95, 52581), (107, 52530), (120, 52479), (139, 52425), (151, 52395), (Start: 160 @52362 has 3 MA's), (163, 52353), (Start: 169 @52326 has 29 MA's), (208, 52158), (219, 52116), (236, 52068), (242, 52056), (248, 52044), (252, 52038), (261, 52017), (273, 51990), (316, 51849), (334, 51762), (335, 51747), (337, 51735), (342, 51705), (349, 51654), (357, 51627), (368, 51576), (372, 51552), (375, 51534), (378, 51516), (379, 51513), (393, 51486), (403, 51444), (415, 51399), (456, 51264), (459, 51249), (464, 51228), (493, 51171), (499, 51147), (511, 51087), (512, 51081), (513, 51075), (514, 51069), (525, 51018), (529, 50994), (534, 50955), (537, 50943), (538, 50940), (560, 50847), (567, 50832), (576, 50811),

Gene: Lollipop1437_76 Start: 57598, Stop: 55541, Start Num: 38
Candidate Starts for Lollipop1437_76:
(6, 57886), (10, 57778), (Start: 38 @57598 has 37 MA's), (148, 57223), (182, 57115), (190, 57082), (201, 57031), (215, 56971), (216, 56968), (243, 56896), (253, 56878), (279, 56815), (280, 56809), (288, 56782), (316, 56716), (321, 56677), (323, 56659), (331, 56635), (349, 56512), (353, 56479), (368, 56416), (392, 56293), (408, 56224), (414, 56206), (442, 56101), (445, 56092), (460, 56032), (467, 55993), (474, 55963), (491, 55906), (504, 55846), (512, 55816), (517, 55783), (553, 55618),

Gene: LuckyLeo_57 Start: 40044, Stop: 41966, Start Num: 49
Candidate Starts for LuckyLeo_57:
(21, 39927), (25, 39948), (32, 39969), (43, 39999), (46, 40032), (Start: 49 @40044 has 13 MA's), (Start: 50 @40047 has 61 MA's), (Start: 60 @40062 has 2 MA's), (64, 40077), (72, 40110), (82, 40143), (85, 40146), (Start: 96 @40194 has 3 MA's), (101, 40212), (126, 40302), (130, 40320), (132, 40329), (138, 40338), (Start: 168 @40410 has 1 MA's), (197, 40530), (Start: 198 @40533 has 29 MA's), (210, 40593), (217, 40611), (246, 40683), (258, 40710), (312, 40845), (315, 40863), (321, 40905), (325, 40926), (327, 40932), (335, 40974), (338, 40995), (342, 41016), (345, 41052), (366, 41151), (367, 41160), (376, 41211), (400, 41307), (401, 41310), (439, 41421), (457, 41487), (465, 41511), (472, 41538), (514, 41706), (516, 41724), (522, 41748), (526, 41763), (527, 41769), (532, 41811), (536, 41826), (545, 41865), (550, 41880), (555, 41901), (576, 41958),

Gene: Luker_58 Start: 53170, Stop: 51665, Start Num: 168
Candidate Starts for Luker_58:
(95, 53425), (128, 53296), (Start: 160 @53206 has 3 MA's), (Start: 168 @53170 has 1 MA's), (Start: 198 @53077 has 29 MA's), (208, 53032), (236, 52942), (238, 52939), (240, 52933), (252, 52912), (278, 52849), (313, 52741), (316, 52723), (334, 52636), (335, 52621), (342, 52579), (358, 52498), (368, 52450), (375, 52408), (378, 52390), (379, 52387), (393, 52360), (405, 52309), (415, 52273), (425, 52222), (456, 52138), (461, 52117), (511, 51961), (512, 51955), (514, 51943), (537, 51817), (567, 51703),

Gene: MacGully_81 Start: 56374, Stop: 54335, Start Num: 41
Candidate Starts for MacGully_81:
(Start: 41 @56374 has 1 MA's), (54, 56305), (55, 56299), (158, 55975), (Start: 170 @55951 has 2 MA's), (189, 55870), (190, 55867), (211, 55765), (215, 55756), (224, 55726), (253, 55660), (281,

55588), (312, 55519), (322, 55447), (335, 55390), (368, 55210), (372, 55186), (385, 55123), (392, 55087), (408, 55018), (413, 55012), (414, 55000), (460, 54826), (512, 54604), (517, 54571), (527, 54529), (531, 54499), (532, 54490), (539, 54466), (540, 54457), (551, 54415),

Gene: Madi_50 Start: 36692, Stop: 38746, Start Num: 52
Candidate Starts for Madi_50:
(Start: 52 @36692 has 10 MA's), (64, 36716), (85, 36779), (105, 36863), (116, 36905), (187, 37127), (197, 37163), (216, 37238), (229, 37277), (252, 37319), (261, 37337), (267, 37358), (271, 37370), (289, 37430), (294, 37445), (310, 37463), (322, 37541), (327, 37556), (328, 37559), (335, 37598), (338, 37619), (355, 37721), (368, 37778), (371, 37799), (372, 37802), (374, 37814), (388, 37862), (390, 37868), (401, 37916), (408, 37949), (415, 37973), (420, 37991), (424, 38021), (433, 38144), (436, 38177), (438, 38189), (442, 38204), (452, 38243), (465, 38288), (472, 38315), (495, 38399), (509, 38462), (516, 38504), (519, 38513), (521, 38522), (530, 38570), (531, 38579), (532, 38591), (536, 38606), (546, 38648),

Gene: Madruga_74 Start: 48812, Stop: 50845, Start Num: 53
Candidate Starts for Madruga_74:
(30, 48722), (Start: 53 @48812 has 3 MA's), (63, 48836), (Start: 78 @48899 has 1 MA's), (98, 48965), (112, 49016), (113, 49019), (148, 49127), (158, 49160), (172, 49199), (179, 49223), (193, 49286), (197, 49304), (201, 49325), (203, 49331), (223, 49400), (235, 49427), (237, 49439), (255, 49472), (287, 49574), (322, 49697), (331, 49727), (345, 49832), (349, 49850), (367, 49940), (368, 49943), (381, 50045), (382, 50084), (390, 50111), (392, 50123), (404, 50171), (407, 50189), (414, 50216), (418, 50228), (420, 50237), (467, 50375), (479, 50420), (503, 50525), (530, 50654), (536, 50687), (540, 50705), (554, 50759), (567, 50798),

Gene: Marietta_72 Start: 52748, Stop: 50667, Start Num: 38
Candidate Starts for Marietta_72:
(9, 52940), (11, 52922), (18, 52847), (Start: 38 @52748 has 37 MA's), (189, 52229), (197, 52196), (201, 52175), (212, 52121), (215, 52115), (216, 52112), (253, 52022), (254, 52019), (279, 51959), (323, 51803), (349, 51656), (368, 51548), (372, 51524), (392, 51422), (405, 51368), (408, 51353), (426, 51272), (442, 51233), (458, 51170), (465, 51131), (467, 51125), (474, 51095), (504, 50978), (517, 50915), (530, 50852), (532, 50834), (553, 50750),

Gene: Maselop_72 Start: 53166, Stop: 51130, Start Num: 40
Candidate Starts for Maselop_72:
(12, 53334), (Start: 40 @53166 has 6 MA's), (Start: 52 @53100 has 10 MA's), (67, 53058), (98, 52953), (157, 52773), (178, 52716), (189, 52665), (193, 52650), (211, 52560), (216, 52548), (253, 52455), (281, 52383), (312, 52314), (322, 52242), (335, 52185), (368, 52005), (372, 51981), (385, 51918), (392, 51882), (414, 51795), (449, 51663), (459, 51624), (460, 51621), (467, 51576), (504, 51429), (517, 51366), (527, 51324), (532, 51285), (539, 51261),

Gene: Mbo2_52 Start: 42925, Stop: 41438, Start Num: 181
Candidate Starts for Mbo2_52:
(155, 43012), (Start: 181 @42925 has 4 MA's), (199, 42838), (208, 42802), (211, 42784), (217, 42769), (225, 42754), (231, 42742), (236, 42730), (239, 42724), (259, 42682), (301, 42559), (330, 42445), (341, 42370), (349, 42316), (367, 42241), (368, 42238), (372, 42214), (379, 42175), (395, 42136), (410, 42094), (461, 41911), (477, 41851), (483, 41833), (494, 41788), (497, 41785), (508, 41737), (510, 41728), (514, 41707), (516, 41689), (522, 41665), (528, 41641), (534, 41599), (540, 41572), (542, 41560), (551, 41530), (555, 41515), (573, 41473),

Gene: Megatron06_62 Start: 46630, Stop: 48687, Start Num: 50
Candidate Starts for Megatron06_62:

(Start: 50 @46630 has 61 MA's), (70, 46690), (71, 46693), (Start: 96 @46786 has 3 MA's), (100, 46798), (103, 46819), (143, 46942), (144, 46945), (148, 46954), (158, 46987), (161, 47008), (172, 47056), (182, 47098), (197, 47161), (201, 47182), (203, 47188), (218, 47242), (287, 47428), (289, 47440), (299, 47458), (310, 47473), (312, 47479), (368, 47797), (369, 47800), (376, 47845), (390, 47896), (392, 47908), (414, 47998), (418, 48010), (423, 48043), (436, 48067), (437, 48076), (467, 48166), (475, 48199), (503, 48310), (504, 48313), (505, 48316), (506, 48319), (514, 48355), (516, 48373), (530, 48439), (532, 48457), (578, 48634),

Gene: MerCougar_75 Start: 57668, Stop: 55593, Start Num: 38
Candidate Starts for MerCougar_75:
(Start: 38 @57668 has 37 MA's), (67, 57548), (Start: 78 @57503 has 1 MA's), (80, 57500), (157, 57257), (178, 57200), (189, 57149), (201, 57095), (216, 57032), (253, 56942), (254, 56939), (262, 56915), (279, 56879), (323, 56723), (331, 56699), (349, 56576), (368, 56465), (372, 56441), (392, 56342), (405, 56288), (420, 56234), (426, 56192), (442, 56153), (449, 56126), (460, 56084), (465, 56051), (474, 56015), (488, 55970), (491, 55958), (504, 55898), (532, 55754), (553, 55670),

Gene: Mima20_60 Start: 40803, Stop: 42716, Start Num: 50
Candidate Starts for Mima20_60:
(Start: 49 @40800 has 13 MA's), (Start: 50 @40803 has 61 MA's), (Start: 60 @40815 has 2 MA's), (72, 40863), (82, 40896), (101, 40965), (126, 41055), (132, 41082), (138, 41091), (Start: 168 @41163 has 1 MA's), (197, 41283), (210, 41346), (246, 41436), (258, 41463), (310, 41592), (315, 41616), (321, 41658), (332, 41706), (335, 41727), (338, 41748), (345, 41805), (356, 41859), (366, 41901), (376, 41961), (400, 42057), (401, 42060), (457, 42237), (472, 42288), (498, 42378), (504, 42414), (506, 42420), (516, 42474), (526, 42513), (545, 42615), (550, 42630), (555, 42651),

Gene: Minos_58 Start: 52601, Stop: 51189, Start Num: 198
Candidate Starts for Minos_58:
(95, 52949), (128, 52820), (159, 52733), (Start: 160 @52730 has 3 MA's), (Start: 198 @52601 has 29 MA's), (208, 52556), (236, 52466), (238, 52463), (240, 52457), (252, 52436), (278, 52373), (313, 52265), (316, 52247), (334, 52160), (335, 52145), (342, 52103), (358, 52022), (368, 51974), (375, 51932), (378, 51914), (379, 51911), (393, 51884), (405, 51833), (415, 51797), (425, 51746), (456, 51662), (461, 51641), (511, 51485), (512, 51479), (514, 51467), (537, 51341), (567, 51227),

Gene: MoiGyank_63 Start: 41576, Stop: 43489, Start Num: 50
Candidate Starts for MoiGyank_63:
(Start: 49 @41573 has 13 MA's), (Start: 50 @41576 has 61 MA's), (Start: 60 @41588 has 2 MA's), (72, 41636), (82, 41669), (101, 41738), (126, 41828), (132, 41855), (138, 41864), (Start: 168 @41936 has 1 MA's), (197, 42056), (210, 42119), (246, 42209), (310, 42365), (315, 42389), (321, 42431), (332, 42479), (335, 42500), (338, 42521), (345, 42578), (349, 42596), (356, 42632), (366, 42674), (376, 42734), (400, 42830), (401, 42833), (457, 43010), (472, 43061), (498, 43151), (504, 43187), (506, 43193), (514, 43229), (516, 43247), (526, 43286), (545, 43388), (550, 43403), (555, 43424),

Gene: Monty_58 Start: 51476, Stop: 49944, Start Num: 169
Candidate Starts for Monty_58:
(95, 51731), (107, 51680), (120, 51629), (139, 51575), (151, 51545), (Start: 160 @51512 has 3 MA's), (163, 51503), (Start: 169 @51476 has 29 MA's), (208, 51308), (219, 51266), (236, 51218), (242, 51206), (248, 51194), (252, 51188), (261, 51167), (273, 51140), (316, 50999), (334, 50912), (335, 50897), (337, 50885), (342, 50855), (349, 50804), (357, 50777), (368, 50726), (378, 50666), (379, 50663), (393, 50636), (403, 50594), (415, 50549), (456, 50414), (459, 50399), (464, 50378), (499, 50297), (500, 50294), (511, 50237), (512, 50231), (513, 50225), (514, 50219), (529, 50144), (534, 50105), (537, 50093), (538, 50090), (560, 49997), (567, 49982), (576, 49961),

Gene: MontyDev_68 Start: 47606, Stop: 49366, Start Num: 150

Candidate Starts for MontyDev_68:
(Start: 150 @47606 has 10 MA's), (173, 47675), (194, 47771), (Start: 198 @47780 has 29 MA's), (216, 47861), (232, 47906), (292, 48083), (310, 48107), (320, 48155), (331, 48215), (334, 48227), (343, 48293), (364, 48416), (368, 48440), (372, 48464), (392, 48668), (400, 48701), (404, 48716), (414, 48755), (415, 48758), (418, 48767), (442, 48836), (479, 48968), (504, 49091), (505, 49094), (512, 49121), (516, 49151), (518, 49157), (519, 49160), (523, 49178), (526, 49190), (555, 49325), (561, 49352), (563, 49355),

Gene: Mopey_54 Start: 39729, Stop: 41672, Start Num: 50
Candidate Starts for Mopey_54:
(Start: 50 @39729 has 61 MA's), (63, 39756), (83, 39828), (97, 39882), (114, 39942), (118, 39960), (119, 39969), (137, 40020), (154, 40062), (Start: 168 @40098 has 1 MA's), (189, 40185), (209, 40278), (211, 40293), (219, 40314), (267, 40416), (278, 40449), (285, 40473), (312, 40533), (327, 40620), (340, 40695), (356, 40785), (368, 40836), (369, 40839), (388, 40929), (392, 40947), (400, 40980), (414, 41034), (418, 41046), (421, 41064), (442, 41127), (465, 41211), (498, 41328), (504, 41376), (517, 41439), (532, 41523),

Gene: MrMiyagi_73 Start: 45205, Stop: 47052, Start Num: 84
Candidate Starts for MrMiyagi_73:
(Start: 84 @45205 has 3 MA's), (91, 45223), (99, 45259), (114, 45310), (148, 45418), (158, 45451), (178, 45511), (185, 45553), (196, 45592), (218, 45688), (221, 45700), (234, 45727), (237, 45742), (241, 45751), (261, 45790), (265, 45805), (289, 45892), (293, 45904), (322, 46003), (323, 46009), (331, 46033), (340, 46093), (351, 46171), (357, 46198), (366, 46228), (368, 46240), (372, 46264), (392, 46342), (400, 46375), (404, 46390), (409, 46414), (413, 46417), (418, 46441), (504, 46765), (507, 46774), (513, 46801), (516, 46825), (527, 46870), (532, 46912), (543, 46960), (549, 46978), (565, 47035),

Gene: MrWormie_57 Start: 51762, Stop: 50350, Start Num: 198
Candidate Starts for MrWormie_57:
(95, 52110), (128, 51981), (Start: 160 @51891 has 3 MA's), (Start: 198 @51762 has 29 MA's), (208, 51717), (236, 51627), (238, 51624), (240, 51618), (252, 51597), (278, 51534), (313, 51426), (316, 51408), (334, 51321), (335, 51306), (342, 51264), (358, 51183), (368, 51135), (375, 51093), (378, 51075), (379, 51072), (393, 51045), (405, 50994), (415, 50958), (425, 50907), (456, 50823), (461, 50802), (511, 50646), (512, 50640), (514, 50628), (537, 50502), (567, 50388),

Gene: Msay19_64 Start: 54046, Stop: 52514, Start Num: 169
Candidate Starts for Msay19_64:
(95, 54301), (107, 54250), (139, 54145), (151, 54115), (Start: 160 @54082 has 3 MA's), (163, 54073), (Start: 169 @54046 has 29 MA's), (208, 53878), (219, 53836), (225, 53818), (236, 53788), (242, 53776), (248, 53764), (252, 53758), (261, 53737), (316, 53569), (334, 53482), (335, 53467), (337, 53455), (342, 53425), (349, 53374), (368, 53296), (372, 53272), (375, 53254), (378, 53236), (379, 53233), (389, 53224), (393, 53206), (403, 53164), (415, 53119), (420, 53101), (456, 52984), (459, 52969), (464, 52948), (499, 52867), (500, 52864), (511, 52807), (512, 52801), (514, 52789), (529, 52714), (534, 52675), (537, 52663), (538, 52660), (560, 52567), (567, 52552),

Gene: NadineRae_71 Start: 52357, Stop: 50276, Start Num: 38
Candidate Starts for NadineRae_71:
(Start: 38 @52357 has 37 MA's), (98, 52126), (189, 51838), (197, 51805), (201, 51784), (212, 51730), (215, 51724), (216, 51721), (253, 51631), (254, 51628), (279, 51568), (323, 51412), (349, 51265), (363, 51184), (368, 51157), (372, 51133), (392, 51031), (405, 50977), (408, 50962), (426, 50881), (442, 50842), (458, 50779), (465, 50740), (467, 50734), (474, 50704), (504, 50587), (517, 50524), (530, 50461), (532, 50443), (553, 50359),

Gene: NatB6_72 Start: 55674, Stop: 53746, Start Num: 73
Candidate Starts for NatB6_72:
(2, 56310), (5, 56109), (8, 56016), (9, 56004), (11, 55986), (Start: 38 @55812 has 37 MA's), (Start: 73 @55674 has 2 MA's), (77, 55650), (141, 55446), (157, 55401), (189, 55293), (215, 55179), (216, 55176), (253, 55086), (254, 55083), (279, 55023), (321, 54885), (323, 54867), (331, 54843), (349, 54720), (368, 54615), (392, 54489), (405, 54435), (413, 54414), (442, 54300), (465, 54204), (467, 54198), (474, 54168), (491, 54111), (504, 54051), (517, 53988), (532, 53907),

Gene: Nellie_47 Start: 40998, Stop: 38749, Start Num: 24
Candidate Starts for Nellie_47:
(Start: 24 @40998 has 4 MA's), (37, 40965), (57, 40881), (107, 40692), (112, 40680), (141, 40590), (152, 40563), (158, 40542), (162, 40515), (164, 40512), (166, 40500), (177, 40461), (208, 40323), (226, 40260), (233, 40245), (236, 40230), (245, 40212), (251, 40200), (256, 40188), (264, 40167), (277, 40119), (278, 40116), (283, 40092), (294, 40050), (296, 40044), (307, 39954), (310, 39930), (334, 39807), (341, 39753), (365, 39642), (368, 39621), (370, 39606), (380, 39546), (393, 39471), (394, 39468), (431, 39303), (463, 39183), (516, 38985), (518, 38979), (530, 38919), (542, 38856), (551, 38826), (557, 38802), (558, 38796),

Gene: Neoevie_57 Start: 52863, Stop: 51451, Start Num: 198
Candidate Starts for Neoevie_57:
(95, 53211), (128, 53082), (159, 52995), (Start: 160 @52992 has 3 MA's), (Start: 198 @52863 has 29 MA's), (208, 52818), (236, 52728), (238, 52725), (240, 52719), (252, 52698), (278, 52635), (313, 52527), (316, 52509), (334, 52422), (335, 52407), (342, 52365), (358, 52284), (368, 52236), (375, 52194), (378, 52176), (379, 52173), (393, 52146), (405, 52095), (415, 52059), (425, 52008), (456, 51924), (461, 51903), (511, 51747), (512, 51741), (514, 51729), (537, 51603), (567, 51489),

Gene: Nettle_61 Start: 41227, Stop: 43143, Start Num: 49
Candidate Starts for Nettle_61:
(20, 41104), (22, 41113), (23, 41125), (34, 41158), (Start: 49 @41227 has 13 MA's), (Start: 50 @41230 has 61 MA's), (Start: 60 @41242 has 2 MA's), (72, 41290), (82, 41323), (101, 41392), (126, 41482), (132, 41509), (138, 41518), (Start: 168 @41590 has 1 MA's), (197, 41710), (210, 41773), (219, 41800), (246, 41863), (258, 41890), (310, 42019), (315, 42043), (321, 42085), (332, 42133), (335, 42154), (338, 42175), (345, 42232), (349, 42250), (356, 42286), (366, 42328), (376, 42388), (400, 42484), (401, 42487), (472, 42715), (498, 42805), (504, 42841), (506, 42847), (514, 42883), (516, 42901), (526, 42940), (545, 43042), (550, 43057), (555, 43078),

Gene: Newt_58 Start: 53091, Stop: 51679, Start Num: 198
Candidate Starts for Newt_58:
(95, 53439), (128, 53310), (159, 53223), (Start: 160 @53220 has 3 MA's), (Start: 198 @53091 has 29 MA's), (208, 53046), (236, 52956), (238, 52953), (240, 52947), (252, 52926), (278, 52863), (313, 52755), (316, 52737), (334, 52650), (335, 52635), (342, 52593), (358, 52512), (368, 52464), (375, 52422), (378, 52404), (379, 52401), (393, 52374), (405, 52323), (415, 52287), (425, 52236), (456, 52152), (461, 52131), (511, 51975), (512, 51969), (514, 51957), (537, 51831), (567, 51717),

Gene: Niagara_57 Start: 53309, Stop: 51606, Start Num: 111
Candidate Starts for Niagara_57:
(Start: 111 @53309 has 9 MA's), (Start: 115 @53297 has 2 MA's), (171, 53114), (Start: 198 @53024 has 29 MA's), (199, 53015), (208, 52979), (213, 52955), (217, 52946), (219, 52937), (236, 52889), (248, 52865), (278, 52793), (284, 52772), (293, 52736), (294, 52733), (328, 52604), (330, 52601), (335, 52565), (336, 52562), (338, 52544), (339, 52535), (342, 52523), (348, 52475), (358, 52442), (368, 52394), (372, 52370), (393, 52304), (415, 52205), (446, 52106), (448, 52097), (455, 52073), (456, 52070), (493, 51977), (499, 51953), (500, 51950), (511, 51893), (514, 51875), (534, 51758), (535, 51755), (538, 51743), (567, 51644), (576, 51623),

Gene: Nilo_68 Start: 47960, Stop: 49720, Start Num: 150
Candidate Starts for Nilo_68:
(Start: 150 @47960 has 10 MA's), (173, 48029), (194, 48125), (Start: 198 @48134 has 29 MA's), (216, 48215), (232, 48260), (310, 48461), (320, 48509), (331, 48569), (334, 48581), (343, 48647), (364, 48770), (368, 48794), (372, 48818), (392, 49022), (400, 49055), (404, 49070), (414, 49109), (415, 49112), (418, 49121), (442, 49190), (479, 49322), (504, 49445), (505, 49448), (512, 49475), (516, 49505), (518, 49511), (519, 49514), (523, 49532), (526, 49544), (555, 49679), (563, 49709),

Gene: Nimi13_57 Start: 52610, Stop: 51198, Start Num: 198
Candidate Starts for Nimi13_57:
(95, 52958), (128, 52829), (Start: 160 @52739 has 3 MA's), (Start: 198 @52610 has 29 MA's), (208, 52565), (236, 52475), (238, 52472), (240, 52466), (252, 52445), (278, 52382), (313, 52274), (316, 52256), (334, 52169), (335, 52154), (342, 52112), (358, 52031), (368, 51983), (375, 51941), (378, 51923), (379, 51920), (393, 51893), (405, 51842), (415, 51806), (425, 51755), (456, 51671), (461, 51650), (511, 51494), (512, 51488), (514, 51476), (537, 51350), (567, 51236),

Gene: Nish23_63 Start: 46151, Stop: 48148, Start Num: 70
Candidate Starts for Nish23_63:
(Start: 50 @46091 has 61 MA's), (70, 46151), (71, 46154), (Start: 96 @46247 has 3 MA's), (100, 46259), (103, 46280), (143, 46403), (144, 46406), (148, 46415), (158, 46448), (161, 46469), (172, 46517), (182, 46559), (197, 46622), (201, 46643), (203, 46649), (218, 46703), (287, 46889), (289, 46901), (299, 46919), (310, 46934), (312, 46940), (368, 47258), (369, 47261), (376, 47306), (390, 47357), (392, 47369), (414, 47459), (418, 47471), (423, 47504), (436, 47528), (437, 47537), (467, 47627), (475, 47660), (503, 47771), (504, 47774), (505, 47777), (506, 47780), (514, 47816), (516, 47834), (530, 47900), (532, 47918), (578, 48095),

Gene: NorManre_63 Start: 40960, Stop: 42873, Start Num: 50
Candidate Starts for NorManre_63:
(20, 40834), (22, 40843), (23, 40855), (34, 40888), (Start: 49 @40957 has 13 MA's), (Start: 50 @40960 has 61 MA's), (Start: 60 @40972 has 2 MA's), (72, 41020), (101, 41122), (126, 41212), (132, 41239), (138, 41248), (Start: 168 @41320 has 1 MA's), (197, 41440), (210, 41503), (246, 41593), (258, 41620), (310, 41749), (315, 41773), (321, 41815), (332, 41863), (335, 41884), (338, 41905), (345, 41962), (349, 41980), (356, 42016), (366, 42058), (376, 42118), (400, 42214), (401, 42217), (457, 42394), (472, 42445), (498, 42535), (504, 42571), (506, 42577), (516, 42631), (526, 42670), (545, 42772), (550, 42787), (555, 42808), (576, 42865),

Gene: NosilaM_73 Start: 56110, Stop: 54188, Start Num: 78
Candidate Starts for NosilaM_73:
(Start: 38 @56275 has 37 MA's), (Start: 78 @56110 has 1 MA's), (80, 56107), (157, 55852), (189, 55744), (201, 55690), (216, 55627), (253, 55537), (254, 55534), (262, 55510), (279, 55474), (321, 55336), (323, 55318), (327, 55309), (331, 55294), (349, 55171), (363, 55087), (368, 55060), (372, 55036), (392, 54937), (405, 54883), (420, 54829), (426, 54787), (442, 54748), (460, 54679), (465, 54646), (474, 54610), (488, 54565), (491, 54553), (504, 54493), (517, 54430), (553, 54265),

Gene: Nova_52 Start: 40183, Stop: 42126, Start Num: 50
Candidate Starts for Nova_52:
(39, 40120), (Start: 50 @40183 has 61 MA's), (63, 40210), (83, 40282), (97, 40336), (114, 40396), (119, 40423), (137, 40474), (138, 40477), (154, 40516), (Start: 168 @40552 has 1 MA's), (189, 40639), (209, 40732), (211, 40747), (219, 40768), (267, 40870), (278, 40903), (285, 40927), (312, 40987), (327, 41074), (340, 41149), (356, 41239), (368, 41290), (369, 41293), (388, 41383), (392, 41401), (400, 41434), (418, 41500), (421, 41518), (442, 41581), (465, 41665), (498, 41782), (504, 41830), (517, 41893), (532, 41977),

Gene: NovaSharks_62 Start: 39405, Stop: 41321, Start Num: 49
Candidate Starts for NovaSharks_62:
(Start: 49 @39405 has 13 MA's), (Start: 50 @39408 has 61 MA's), (Start: 60 @39420 has 2 MA's), (72, 39468), (82, 39501), (126, 39660), (132, 39687), (138, 39696), (Start: 168 @39768 has 1 MA's), (197, 39888), (210, 39951), (246, 40041), (258, 40068), (310, 40197), (315, 40221), (321, 40263), (322, 40275), (327, 40290), (332, 40311), (335, 40332), (338, 40353), (345, 40410), (349, 40428), (356, 40464), (366, 40506), (376, 40566), (400, 40662), (401, 40665), (457, 40842), (472, 40893), (498, 40983), (504, 41019), (506, 41025), (516, 41079), (526, 41118), (545, 41220), (550, 41235), (555, 41256),

Gene: NovumRegina_72 Start: 56100, Stop: 54034, Start Num: 38
Candidate Starts for NovumRegina_72:
(8, 56304), (9, 56292), (11, 56274), (Start: 38 @56100 has 37 MA's), (Start: 73 @55962 has 2 MA's), (77, 55938), (141, 55734), (157, 55689), (189, 55581), (215, 55467), (216, 55464), (253, 55374), (254, 55371), (279, 55311), (321, 55173), (323, 55155), (331, 55131), (349, 55008), (368, 54903), (392, 54777), (405, 54723), (440, 54597), (442, 54588), (448, 54564), (465, 54492), (467, 54486), (474, 54456), (491, 54399), (504, 54339), (517, 54276), (532, 54195),

Gene: Oaker_60 Start: 46344, Stop: 48401, Start Num: 50
Candidate Starts for Oaker_60:
(Start: 50 @46344 has 61 MA's), (70, 46404), (71, 46407), (Start: 96 @46500 has 3 MA's), (100, 46512), (103, 46533), (143, 46656), (144, 46659), (148, 46668), (158, 46701), (161, 46722), (172, 46770), (182, 46812), (197, 46875), (201, 46896), (203, 46902), (218, 46956), (287, 47142), (289, 47154), (299, 47172), (310, 47187), (312, 47193), (368, 47511), (369, 47514), (376, 47559), (390, 47610), (392, 47622), (414, 47712), (418, 47724), (423, 47757), (436, 47781), (437, 47790), (467, 47880), (475, 47913), (503, 48024), (504, 48027), (505, 48030), (506, 48033), (514, 48069), (516, 48087), (530, 48153), (532, 48171), (578, 48348),

Gene: Onyinye_65 Start: 45953, Stop: 47881, Start Num: 50
Candidate Starts for Onyinye_65:
(Start: 50 @45953 has 61 MA's), (62, 45974), (69, 46004), (Start: 96 @46103 has 3 MA's), (114, 46166), (132, 46238), (138, 46247), (158, 46295), (211, 46511), (219, 46532), (228, 46553), (230, 46556), (236, 46568), (250, 46595), (290, 46718), (312, 46754), (322, 46826), (325, 46835), (334, 46868), (342, 46925), (344, 46937), (356, 47006), (359, 47015), (364, 47033), (368, 47057), (390, 47153), (392, 47165), (400, 47198), (413, 47240), (424, 47303), (461, 47408), (513, 47624), (516, 47648), (517, 47651), (527, 47693), (531, 47723), (536, 47747), (573, 47864),

Gene: Orchid_57 Start: 50422, Stop: 48932, Start Num: 180
Candidate Starts for Orchid_57:
(Start: 180 @50422 has 5 MA's), (199, 50329), (201, 50320), (205, 50308), (208, 50293), (211, 50275), (238, 50218), (268, 50146), (269, 50143), (292, 50050), (308, 50017), (314, 49984), (315, 49981), (319, 49960), (334, 49891), (338, 49855), (353, 49768), (368, 49705), (369, 49702), (374, 49672), (396, 49600), (398, 49591), (441, 49468), (442, 49462), (490, 49330), (500, 49288), (508, 49243), (514, 49213), (571, 48961),

Gene: OtterstedtS21_60 Start: 40582, Stop: 42495, Start Num: 50
Candidate Starts for OtterstedtS21_60:
(Start: 49 @40579 has 13 MA's), (Start: 50 @40582 has 61 MA's), (Start: 60 @40594 has 2 MA's), (72, 40642), (82, 40675), (101, 40744), (126, 40834), (132, 40861), (138, 40870), (Start: 168 @40942 has 1 MA's), (189, 41029), (197, 41062), (210, 41125), (246, 41215), (310, 41371), (315, 41395), (321, 41437), (332, 41485), (335, 41506), (338, 41527), (345, 41584), (356, 41638), (366, 41680), (376, 41740), (400, 41836), (401, 41839), (457, 42016), (472, 42067), (498, 42157), (504, 42193), (506,

42199), (516, 42253), (526, 42292), (545, 42394), (550, 42409), (555, 42430),

Gene: Outis_73 Start: 56760, Stop: 54685, Start Num: 38
Candidate Starts for Outis_73:
(Start: 38 @56760 has 37 MA's), (67, 56640), (Start: 78 @56595 has 1 MA's), (80, 56592), (157, 56349), (178, 56292), (189, 56241), (201, 56187), (216, 56124), (253, 56034), (254, 56031), (262, 56007), (279, 55971), (323, 55815), (331, 55791), (349, 55668), (368, 55557), (372, 55533), (392, 55434), (405, 55380), (420, 55326), (426, 55284), (442, 55245), (460, 55176), (465, 55143), (474, 55107), (488, 55062), (491, 55050), (504, 54990), (517, 54927), (532, 54846), (553, 54762),

Gene: P1201_75 Start: 57035, Stop: 55065, Start Num: 59
Candidate Starts for P1201_75:
(Start: 59 @57035 has 8 MA's), (97, 56897), (102, 56873), (146, 56741), (183, 56618), (189, 56600), (190, 56597), (253, 56390), (312, 56249), (355, 55979), (361, 55955), (366, 55934), (374, 55886), (392, 55790), (400, 55757), (415, 55700), (417, 55694), (418, 55691), (467, 55502), (513, 55319), (517, 55292), (530, 55229), (532, 55211),

Gene: PBI1_50 Start: 39660, Stop: 41603, Start Num: 50
Candidate Starts for PBI1_50:
(Start: 50 @39660 has 61 MA's), (63, 39687), (83, 39759), (97, 39813), (114, 39873), (118, 39891), (119, 39900), (137, 39951), (154, 39993), (Start: 168 @40029 has 1 MA's), (189, 40116), (209, 40209), (211, 40224), (219, 40245), (267, 40347), (278, 40380), (285, 40404), (312, 40464), (327, 40551), (340, 40626), (356, 40716), (368, 40767), (369, 40770), (388, 40860), (392, 40878), (400, 40911), (414, 40965), (418, 40977), (421, 40995), (442, 41058), (465, 41142), (498, 41259), (504, 41307), (517, 41370), (532, 41454),

Gene: PLot_53 Start: 39756, Stop: 41699, Start Num: 50
Candidate Starts for PLot_53:
(39, 39693), (Start: 50 @39756 has 61 MA's), (63, 39783), (83, 39855), (97, 39909), (114, 39969), (119, 39996), (137, 40047), (154, 40089), (Start: 168 @40125 has 1 MA's), (189, 40212), (209, 40305), (211, 40320), (219, 40341), (267, 40443), (278, 40476), (285, 40500), (312, 40560), (327, 40647), (340, 40722), (356, 40812), (368, 40863), (369, 40866), (388, 40956), (392, 40974), (400, 41007), (418, 41073), (421, 41091), (442, 41154), (465, 41238), (498, 41355), (504, 41403), (517, 41466), (532, 41550),

Gene: Papyrus_66 Start: 47571, Stop: 49331, Start Num: 150
Candidate Starts for Papyrus_66:
(Start: 150 @47571 has 10 MA's), (173, 47640), (194, 47736), (Start: 198 @47745 has 29 MA's), (216, 47826), (232, 47871), (310, 48072), (320, 48120), (331, 48180), (334, 48192), (343, 48258), (364, 48381), (368, 48405), (372, 48429), (392, 48633), (400, 48666), (404, 48681), (414, 48720), (415, 48723), (418, 48732), (442, 48801), (479, 48933), (504, 49056), (505, 49059), (512, 49086), (516, 49116), (518, 49122), (519, 49125), (523, 49143), (526, 49155), (555, 49290), (561, 49317), (563, 49320),

Gene: ParvusTarda_59 Start: 39954, Stop: 41870, Start Num: 49
Candidate Starts for ParvusTarda_59:
(20, 39831), (22, 39840), (23, 39852), (34, 39885), (Start: 49 @39954 has 13 MA's), (Start: 50 @39957 has 61 MA's), (Start: 60 @39969 has 2 MA's), (72, 40017), (82, 40050), (101, 40119), (126, 40209), (132, 40236), (138, 40245), (Start: 168 @40317 has 1 MA's), (189, 40404), (197, 40437), (210, 40500), (246, 40590), (310, 40746), (315, 40770), (321, 40812), (332, 40860), (335, 40881), (338, 40902), (345, 40959), (356, 41013), (366, 41055), (376, 41115), (400, 41211), (401, 41214), (457, 41391), (472, 41442), (498, 41532), (504, 41568), (506, 41574), (516, 41628), (526, 41667), (545, 41769), (550, 41784), (555, 41805),

Gene: Patience_76 Start: 49716, Stop: 51749, Start Num: 53
Candidate Starts for Patience_76:
(Start: 53 @49716 has 3 MA's), (63, 49740), (Start: 78 @49803 has 1 MA's), (98, 49869), (112, 49920), (113, 49923), (148, 50031), (158, 50064), (172, 50103), (179, 50127), (193, 50190), (197, 50208), (Start: 198 @50211 has 29 MA's), (201, 50229), (203, 50235), (223, 50304), (235, 50331), (237, 50343), (255, 50376), (287, 50478), (322, 50601), (331, 50631), (345, 50736), (349, 50754), (367, 50844), (368, 50847), (381, 50949), (382, 50988), (390, 51015), (391, 51021), (392, 51027), (404, 51075), (407, 51093), (414, 51120), (418, 51132), (420, 51141), (503, 51429), (530, 51558), (536, 51591), (540, 51609), (554, 51663), (567, 51702),

Gene: Patio_74 Start: 56655, Stop: 54598, Start Num: 38
Candidate Starts for Patio_74:
(6, 56943), (10, 56835), (Start: 38 @56655 has 37 MA's), (148, 56280), (182, 56172), (190, 56139), (201, 56088), (215, 56028), (216, 56025), (243, 55953), (253, 55935), (279, 55872), (280, 55866), (288, 55839), (316, 55773), (321, 55734), (323, 55716), (331, 55692), (340, 55632), (349, 55569), (353, 55536), (368, 55473), (392, 55350), (408, 55281), (414, 55263), (442, 55158), (445, 55149), (460, 55089), (465, 55056), (467, 55050), (474, 55020), (491, 54963), (504, 54903), (512, 54873), (517, 54840), (553, 54675),

Gene: Patos_63 Start: 40959, Stop: 42872, Start Num: 50
Candidate Starts for Patos_63:
(20, 40833), (22, 40842), (23, 40854), (34, 40887), (Start: 49 @40956 has 13 MA's), (Start: 50 @40959 has 61 MA's), (Start: 60 @40971 has 2 MA's), (72, 41019), (101, 41121), (126, 41211), (132, 41238), (138, 41247), (Start: 168 @41319 has 1 MA's), (197, 41439), (210, 41502), (246, 41592), (258, 41619), (310, 41748), (315, 41772), (321, 41814), (332, 41862), (335, 41883), (338, 41904), (345, 41961), (349, 41979), (356, 42015), (366, 42057), (376, 42117), (400, 42213), (401, 42216), (457, 42393), (472, 42444), (498, 42534), (504, 42570), (506, 42576), (516, 42630), (526, 42669), (545, 42771), (550, 42786), (555, 42807), (576, 42864),

Gene: PatrickStar_58 Start: 50421, Stop: 48931, Start Num: 180
Candidate Starts for PatrickStar_58:
(Start: 180 @50421 has 5 MA's), (199, 50328), (201, 50319), (205, 50307), (208, 50292), (211, 50274), (238, 50217), (268, 50145), (269, 50142), (292, 50049), (308, 50016), (314, 49983), (315, 49980), (319, 49959), (334, 49890), (338, 49854), (353, 49767), (368, 49704), (369, 49701), (374, 49671), (396, 49599), (398, 49590), (441, 49467), (442, 49461), (490, 49329), (500, 49287), (508, 49242), (514, 49212), (571, 48960),

Gene: Pemberton_72 Start: 52928, Stop: 50847, Start Num: 38
Candidate Starts for Pemberton_72:
(9, 53120), (11, 53102), (18, 53027), (Start: 38 @52928 has 37 MA's), (98, 52697), (189, 52409), (197, 52376), (201, 52355), (212, 52301), (215, 52295), (216, 52292), (253, 52202), (254, 52199), (279, 52139), (323, 51983), (349, 51836), (368, 51728), (372, 51704), (392, 51602), (405, 51548), (408, 51533), (426, 51452), (442, 51413), (458, 51350), (465, 51311), (467, 51305), (474, 51275), (504, 51158), (517, 51095), (530, 51032), (532, 51014), (553, 50930),

Gene: Penelope2018_53 Start: 39774, Stop: 41717, Start Num: 50
Candidate Starts for Penelope2018_53:
(35, 39705), (Start: 50 @39774 has 61 MA's), (63, 39801), (83, 39873), (97, 39927), (114, 39987), (118, 40005), (119, 40014), (137, 40065), (154, 40107), (Start: 168 @40143 has 1 MA's), (189, 40230), (209, 40323), (211, 40338), (219, 40359), (267, 40461), (278, 40494), (285, 40518), (312, 40578), (327, 40665), (340, 40740), (356, 40830), (368, 40881), (369, 40884), (388, 40974), (392, 40992), (400, 41025), (414, 41079), (418, 41091), (421, 41109), (442, 41172), (465, 41256), (498, 41373),

(504, 41421), (517, 41484), (532, 41568),

Gene: PeteyPab_71 Start: 52509, Stop: 50584, Start Num: 59
Candidate Starts for PeteyPab_71:
(33, 52602), (36, 52596), (Start: 59 @52509 has 8 MA's), (108, 52338), (123, 52284), (189, 52080), (229, 51924), (253, 51873), (254, 51870), (274, 51828), (311, 51741), (312, 51738), (322, 51666), (325, 51657), (391, 51306), (392, 51300), (400, 51267), (491, 50928), (506, 50862), (509, 50850), (513, 50832), (517, 50805), (530, 50742), (536, 50709), (554, 50637),

Gene: Phalaborwa_53 Start: 39879, Stop: 41825, Start Num: 49
Candidate Starts for Phalaborwa_53:
(Start: 49 @39879 has 13 MA's), (79, 39975), (83, 39981), (97, 40035), (114, 40095), (119, 40122), (137, 40173), (138, 40176), (154, 40215), (Start: 168 @40251 has 1 MA's), (189, 40338), (209, 40431), (211, 40446), (219, 40467), (267, 40569), (278, 40602), (285, 40626), (312, 40686), (327, 40773), (342, 40857), (368, 40989), (369, 40992), (373, 41016), (388, 41082), (392, 41100), (400, 41133), (414, 41187), (418, 41199), (421, 41217), (442, 41280), (465, 41364), (498, 41481), (504, 41529), (517, 41592), (532, 41676),

Gene: Philon9_57 Start: 53944, Stop: 52235, Start Num: 111
Candidate Starts for Philon9_57:
(Start: 111 @53944 has 9 MA's), (Start: 115 @53932 has 2 MA's), (Start: 153 @53812 has 1 MA's), (165, 53779), (171, 53749), (174, 53743), (199, 53635), (208, 53599), (213, 53575), (217, 53566), (219, 53557), (236, 53509), (238, 53506), (240, 53500), (242, 53497), (288, 53374), (294, 53353), (314, 53293), (330, 53221), (334, 53200), (335, 53185), (336, 53182), (337, 53173), (368, 53014), (377, 52963), (379, 52951), (388, 52945), (393, 52924), (404, 52879), (415, 52834), (423, 52792), (446, 52735), (454, 52705), (455, 52702), (456, 52699), (482, 52645), (511, 52522), (514, 52504), (534, 52387), (535, 52384), (538, 52372), (576, 52252),

Gene: Phomeo_71 Start: 56408, Stop: 54342, Start Num: 38
Candidate Starts for Phomeo_71:
(2, 56906), (5, 56705), (8, 56612), (9, 56600), (11, 56582), (Start: 38 @56408 has 37 MA's), (Start: 73 @56270 has 2 MA's), (77, 56246), (141, 56042), (157, 55997), (189, 55889), (215, 55775), (216, 55772), (253, 55682), (254, 55679), (279, 55619), (321, 55481), (323, 55463), (331, 55439), (349, 55316), (368, 55211), (392, 55085), (405, 55031), (440, 54905), (442, 54896), (448, 54872), (465, 54800), (467, 54794), (474, 54764), (491, 54707), (504, 54647), (517, 54584), (532, 54503),

Gene: Phreeze_60 Start: 45650, Stop: 47707, Start Num: 50
Candidate Starts for Phreeze_60:
(Start: 50 @45650 has 61 MA's), (70, 45710), (71, 45713), (Start: 96 @45806 has 3 MA's), (100, 45818), (103, 45839), (143, 45962), (144, 45965), (148, 45974), (158, 46007), (161, 46028), (172, 46076), (197, 46181), (201, 46202), (203, 46208), (218, 46262), (287, 46448), (289, 46460), (299, 46478), (310, 46493), (312, 46499), (368, 46817), (369, 46820), (376, 46865), (390, 46916), (392, 46928), (414, 47018), (418, 47030), (423, 47063), (436, 47087), (437, 47096), (467, 47186), (475, 47219), (503, 47330), (504, 47333), (505, 47336), (506, 47339), (516, 47393), (530, 47459), (532, 47477), (578, 47654),

Gene: Phroglets_49 Start: 42178, Stop: 40175, Start Num: 104
Candidate Starts for Phroglets_49:
(Start: 104 @42178 has 1 MA's), (214, 41776), (220, 41752), (233, 41725), (236, 41710), (251, 41680), (256, 41668), (285, 41566), (294, 41533), (298, 41515), (302, 41497), (303, 41491), (309, 41413), (318, 41368), (338, 41278), (340, 41266), (346, 41221), (375, 41083), (394, 41008), (412, 40939), (417, 40915), (430, 40819), (468, 40669), (478, 40654), (516, 40483), (538, 40378), (541, 40360), (542, 40354), (558, 40294), (579, 40192),

Gene: PierreThree_58 Start: 52668, Stop: 51259, Start Num: 198
Candidate Starts for PierreThree_58:
(95, 53046), (107, 52995), (120, 52944), (139, 52890), (151, 52860), (Start: 160 @52827 has 3 MA's), (163, 52818), (Start: 169 @52791 has 29 MA's), (Start: 198 @52668 has 29 MA's), (208, 52623), (219, 52581), (236, 52533), (238, 52530), (240, 52524), (242, 52521), (248, 52509), (252, 52503), (273, 52455), (275, 52452), (313, 52332), (316, 52314), (328, 52251), (334, 52227), (335, 52212), (349, 52119), (368, 52041), (378, 51981), (379, 51978), (389, 51969), (393, 51951), (403, 51909), (415, 51864), (420, 51846), (456, 51729), (459, 51714), (464, 51693), (499, 51612), (500, 51609), (511, 51552), (512, 51546), (514, 51534), (525, 51483), (528, 51468), (529, 51459), (534, 51420), (537, 51408), (560, 51312), (567, 51297),

Gene: PigHeaded_56 Start: 42931, Stop: 40772, Start Num: 29
Candidate Starts for PigHeaded_56:
(Start: 29 @42931 has 1 MA's), (117, 42610), (135, 42553), (140, 42544), (148, 42526), (166, 42451), (201, 42304), (202, 42301), (233, 42196), (236, 42181), (251, 42151), (256, 42139), (257, 42136), (264, 42118), (278, 42067), (294, 42001), (296, 41995), (297, 41986), (300, 41977), (306, 41920), (364, 41617), (394, 41485), (402, 41452), (417, 41410), (428, 41350), (431, 41326), (441, 41296), (443, 41287), (463, 41206), (478, 41179), (492, 41134), (501, 41092), (505, 41065), (516, 41008), (518, 41002), (542, 40879), (557, 40825), (558, 40819),

Gene: Pleakley_82 Start: 56142, Stop: 54094, Start Num: 38
Candidate Starts for Pleakley_82:
(Start: 38 @56142 has 37 MA's), (75, 55989), (Start: 84 @55974 has 3 MA's), (103, 55893), (148, 55770), (157, 55740), (189, 55632), (197, 55599), (207, 55548), (216, 55515), (253, 55425), (265, 55392), (279, 55362), (311, 55287), (323, 55206), (335, 55155), (349, 55059), (353, 55026), (363, 54990), (368, 54963), (391, 54846), (392, 54840), (408, 54771), (414, 54753), (418, 54741), (460, 54579), (467, 54546), (474, 54516), (479, 54501), (491, 54459), (517, 54336), (532, 54255), (539, 54231), (553, 54171),

Gene: PokyPuppy_58 Start: 52764, Stop: 51256, Start Num: 176
Candidate Starts for PokyPuppy_58:
(95, 53043), (107, 52992), (120, 52941), (136, 52893), (139, 52887), (151, 52857), (Start: 160 @52824 has 3 MA's), (163, 52815), (Start: 169 @52788 has 29 MA's), (Start: 176 @52764 has 1 MA's), (Start: 198 @52665 has 29 MA's), (208, 52620), (219, 52578), (236, 52530), (238, 52527), (240, 52521), (242, 52518), (252, 52500), (273, 52452), (313, 52329), (316, 52311), (334, 52224), (335, 52209), (349, 52116), (357, 52089), (368, 52038), (378, 51978), (379, 51975), (389, 51966), (393, 51948), (403, 51906), (415, 51861), (456, 51726), (459, 51711), (464, 51690), (493, 51633), (500, 51606), (511, 51549), (512, 51543), (514, 51531), (525, 51480), (529, 51456), (534, 51417), (537, 51405), (538, 51402), (560, 51309), (567, 51294),

Gene: Poland_64 Start: 54025, Stop: 52493, Start Num: 169
Candidate Starts for Poland_64:
(95, 54280), (107, 54229), (139, 54124), (151, 54094), (Start: 160 @54061 has 3 MA's), (163, 54052), (Start: 169 @54025 has 29 MA's), (208, 53857), (219, 53815), (225, 53797), (236, 53767), (242, 53755), (248, 53743), (252, 53737), (261, 53716), (316, 53548), (334, 53461), (335, 53446), (337, 53434), (342, 53404), (349, 53353), (368, 53275), (372, 53251), (375, 53233), (378, 53215), (379, 53212), (389, 53203), (393, 53185), (403, 53143), (415, 53098), (420, 53080), (456, 52963), (459, 52948), (464, 52927), (499, 52846), (500, 52843), (511, 52786), (512, 52780), (514, 52768), (529, 52693), (534, 52654), (537, 52642), (538, 52639), (560, 52546), (567, 52531),

Gene: Polyyuki_72 Start: 53158, Stop: 51122, Start Num: 40
Candidate Starts for Polyyuki_72:

(12, 53326), (Start: 40 @53158 has 6 MA's), (Start: 52 @53092 has 10 MA's), (67, 53050), (157, 52765), (178, 52708), (189, 52657), (193, 52642), (211, 52552), (216, 52540), (253, 52447), (281, 52375), (312, 52306), (322, 52234), (335, 52177), (368, 51997), (372, 51973), (385, 51910), (392, 51874), (414, 51787), (449, 51655), (459, 51616), (460, 51613), (467, 51568), (504, 51421), (517, 51358), (527, 51316), (532, 51277), (539, 51253),

Gene: PotatoChip_72 Start: 52511, Stop: 50586, Start Num: 59
Candidate Starts for PotatoChip_72:
(33, 52604), (36, 52598), (Start: 59 @52511 has 8 MA's), (108, 52340), (123, 52286), (189, 52082), (229, 51926), (253, 51875), (254, 51872), (274, 51830), (311, 51743), (312, 51740), (322, 51668), (325, 51659), (391, 51308), (392, 51302), (400, 51269), (491, 50930), (506, 50864), (509, 50852), (513, 50834), (517, 50807), (530, 50744), (536, 50711), (554, 50639),

Gene: Prager_53 Start: 39749, Stop: 41692, Start Num: 50
Candidate Starts for Prager_53:
(Start: 50 @39749 has 61 MA's), (63, 39776), (83, 39848), (97, 39902), (114, 39962), (118, 39980), (119, 39989), (137, 40040), (154, 40082), (Start: 168 @40118 has 1 MA's), (189, 40205), (209, 40298), (211, 40313), (219, 40334), (267, 40436), (278, 40469), (285, 40493), (312, 40553), (327, 40640), (340, 40715), (356, 40805), (368, 40856), (369, 40859), (388, 40949), (392, 40967), (400, 41000), (414, 41054), (418, 41066), (421, 41084), (442, 41147), (465, 41231), (498, 41348), (504, 41396), (517, 41459), (532, 41543),

Gene: Predator_60 Start: 44295, Stop: 46307, Start Num: 50
Candidate Starts for Predator_60:
(Start: 50 @44295 has 61 MA's), (56, 44310), (68, 44349), (75, 44379), (76, 44388), (86, 44403), (98, 44457), (100, 44463), (127, 44568), (148, 44619), (154, 44640), (158, 44652), (172, 44721), (178, 44742), (191, 44802), (197, 44826), (201, 44847), (203, 44853), (287, 45093), (289, 45105), (310, 45138), (312, 45144), (331, 45246), (367, 45459), (368, 45462), (376, 45510), (390, 45561), (391, 45567), (392, 45573), (414, 45663), (418, 45675), (452, 45798), (467, 45831), (503, 45975), (507, 45987), (514, 46020), (530, 46104), (532, 46122), (533, 46125), (544, 46173), (559, 46230),

Gene: Puissant_59 Start: 45753, Stop: 47810, Start Num: 50
Candidate Starts for Puissant_59:
(Start: 50 @45753 has 61 MA's), (68, 45807), (71, 45816), (Start: 96 @45909 has 3 MA's), (98, 45915), (103, 45942), (144, 46068), (148, 46077), (158, 46110), (161, 46131), (172, 46179), (178, 46200), (197, 46284), (Start: 198 @46287 has 29 MA's), (201, 46305), (203, 46311), (218, 46365), (287, 46551), (289, 46563), (299, 46581), (310, 46596), (312, 46602), (368, 46920), (369, 46923), (376, 46968), (390, 47019), (392, 47031), (414, 47121), (418, 47133), (423, 47166), (436, 47190), (437, 47199), (467, 47289), (475, 47322), (503, 47433), (504, 47436), (505, 47439), (506, 47442), (516, 47496), (519, 47505), (532, 47580), (539, 47604), (544, 47631), (578, 47757),

Gene: Pywacket_58 Start: 41409, Stop: 43325, Start Num: 49
Candidate Starts for Pywacket_58:
(Start: 49 @41409 has 13 MA's), (Start: 50 @41412 has 61 MA's), (Start: 60 @41424 has 2 MA's), (72, 41472), (82, 41505), (101, 41574), (126, 41664), (132, 41691), (138, 41700), (Start: 168 @41772 has 1 MA's), (189, 41859), (197, 41892), (210, 41955), (246, 42045), (310, 42201), (315, 42225), (321, 42267), (332, 42315), (335, 42336), (338, 42357), (345, 42414), (356, 42468), (366, 42510), (376, 42570), (400, 42666), (401, 42669), (457, 42846), (472, 42897), (498, 42987), (504, 43023), (506, 43029), (516, 43083), (526, 43122), (545, 43224), (550, 43239), (555, 43260),

Gene: Ranch_60 Start: 39414, Stop: 41327, Start Num: 50
Candidate Starts for Ranch_60:

(46, 39399), (Start: 49 @39411 has 13 MA's), (Start: 50 @39414 has 61 MA's), (Start: 60 @39426 has 2 MA's), (72, 39474), (82, 39507), (101, 39576), (126, 39666), (132, 39693), (138, 39702), (Start: 168 @39774 has 1 MA's), (197, 39894), (210, 39957), (246, 40047), (258, 40074), (310, 40203), (315, 40227), (321, 40269), (332, 40317), (334, 40323), (335, 40338), (338, 40359), (345, 40416), (356, 40470), (366, 40512), (376, 40572), (400, 40668), (401, 40671), (457, 40848), (472, 40899), (498, 40989), (504, 41025), (506, 41031), (516, 41085), (526, 41124), (545, 41226), (550, 41241), (555, 41262),

Gene: RazorC_60 Start: 39561, Stop: 41474, Start Num: 50
Candidate Starts for RazorC_60:
(Start: 49 @39558 has 13 MA's), (Start: 50 @39561 has 61 MA's), (Start: 60 @39573 has 2 MA's), (72, 39621), (82, 39654), (126, 39813), (132, 39840), (138, 39849), (Start: 168 @39921 has 1 MA's), (197, 40041), (210, 40104), (246, 40194), (258, 40221), (310, 40350), (315, 40374), (321, 40416), (322, 40428), (327, 40443), (332, 40464), (335, 40485), (338, 40506), (345, 40563), (349, 40581), (356, 40617), (366, 40659), (376, 40719), (400, 40815), (401, 40818), (457, 40995), (472, 41046), (498, 41136), (504, 41172), (506, 41178), (516, 41232), (526, 41271), (545, 41373), (550, 41388), (555, 41409),

Gene: RedRaider_79 Start: 58956, Stop: 56899, Start Num: 38
Candidate Starts for RedRaider_79:
(1, 59529), (6, 59244), (Start: 38 @58956 has 37 MA's), (148, 58581), (158, 58548), (190, 58440), (201, 58389), (215, 58329), (216, 58326), (243, 58254), (253, 58236), (279, 58173), (280, 58167), (316, 58074), (323, 58017), (331, 57993), (349, 57870), (353, 57837), (368, 57774), (392, 57651), (408, 57582), (414, 57564), (442, 57459), (445, 57450), (460, 57390), (467, 57351), (474, 57321), (491, 57264), (504, 57204), (512, 57174), (517, 57141), (531, 57069), (553, 56976),

Gene: RemRem_60 Start: 51466, Stop: 49934, Start Num: 169
Candidate Starts for RemRem_60:
(95, 51721), (107, 51670), (120, 51619), (139, 51565), (151, 51535), (Start: 160 @51502 has 3 MA's), (163, 51493), (Start: 169 @51466 has 29 MA's), (208, 51298), (219, 51256), (236, 51208), (242, 51196), (248, 51184), (252, 51178), (261, 51157), (273, 51130), (316, 50989), (334, 50902), (335, 50887), (337, 50875), (342, 50845), (349, 50794), (357, 50767), (368, 50716), (375, 50674), (378, 50656), (379, 50653), (393, 50626), (403, 50584), (415, 50539), (456, 50404), (459, 50389), (464, 50368), (493, 50311), (499, 50287), (500, 50284), (511, 50227), (512, 50221), (513, 50215), (514, 50209), (525, 50158), (529, 50134), (534, 50095), (537, 50083), (538, 50080), (560, 49987), (567, 49972), (576, 49951),

Gene: Reynauld_56 Start: 50676, Stop: 49183, Start Num: 181
Candidate Starts for Reynauld_56:
(Start: 181 @50676 has 4 MA's), (186, 50640), (195, 50607), (Start: 198 @50598 has 29 MA's), (199, 50589), (201, 50580), (204, 50571), (208, 50553), (231, 50493), (236, 50481), (240, 50472), (295, 50325), (314, 50268), (319, 50244), (332, 50181), (349, 50067), (367, 49992), (368, 49989), (372, 49965), (375, 49947), (379, 49926), (395, 49887), (398, 49875), (399, 49872), (454, 49695), (462, 49659), (514, 49446), (522, 49404), (532, 49338), (551, 49263), (555, 49248),

Gene: Riduram_59 Start: 39137, Stop: 41050, Start Num: 50
Candidate Starts for Riduram_59:
(Start: 49 @39134 has 13 MA's), (Start: 50 @39137 has 61 MA's), (Start: 60 @39149 has 2 MA's), (72, 39197), (82, 39230), (126, 39389), (132, 39416), (138, 39425), (Start: 168 @39497 has 1 MA's), (197, 39617), (210, 39680), (246, 39770), (258, 39797), (310, 39926), (315, 39950), (321, 39992), (322, 40004), (327, 40019), (332, 40040), (335, 40061), (338, 40082), (345, 40139), (349, 40157), (356, 40193), (366, 40235), (376, 40295), (400, 40391), (401, 40394), (457, 40571), (472, 40622), (498, 40712), (504, 40748), (506, 40754), (516, 40808), (526, 40847), (545, 40949), (550, 40964), (555,

40985),

Gene: Riparian_68 Start: 47408, Stop: 49168, Start Num: 150
Candidate Starts for Riparian_68:
(Start: 150 @47408 has 10 MA's), (173, 47477), (194, 47573), (Start: 198 @47582 has 29 MA's), (216, 47663), (232, 47708), (310, 47909), (320, 47957), (331, 48017), (334, 48029), (343, 48095), (364, 48218), (368, 48242), (372, 48266), (392, 48470), (400, 48503), (404, 48518), (414, 48557), (415, 48560), (418, 48569), (442, 48638), (479, 48770), (504, 48893), (505, 48896), (512, 48923), (516, 48953), (518, 48959), (519, 48962), (523, 48980), (526, 48992), (555, 49127), (563, 49157),

Gene: RobinSparkles_61 Start: 50974, Stop: 49484, Start Num: 180
Candidate Starts for RobinSparkles_61:
(Start: 180 @50974 has 5 MA's), (199, 50881), (201, 50872), (205, 50860), (208, 50845), (211, 50827), (238, 50770), (268, 50698), (269, 50695), (292, 50602), (308, 50569), (314, 50536), (315, 50533), (319, 50512), (334, 50443), (338, 50407), (353, 50320), (368, 50257), (369, 50254), (374, 50224), (396, 50152), (398, 50143), (441, 50020), (442, 50014), (490, 49882), (500, 49840), (508, 49795), (514, 49765), (571, 49513),

Gene: Rope_66 Start: 47562, Stop: 49322, Start Num: 150
Candidate Starts for Rope_66:
(Start: 150 @47562 has 10 MA's), (173, 47631), (194, 47727), (Start: 198 @47736 has 29 MA's), (216, 47817), (232, 47862), (310, 48063), (320, 48111), (331, 48171), (334, 48183), (343, 48249), (364, 48372), (368, 48396), (372, 48420), (392, 48624), (400, 48657), (404, 48672), (414, 48711), (415, 48714), (418, 48723), (442, 48792), (479, 48924), (504, 49047), (505, 49050), (512, 49077), (516, 49107), (518, 49113), (519, 49116), (523, 49134), (526, 49146), (555, 49281), (561, 49308), (563, 49311),

Gene: Rota_56 Start: 39801, Stop: 41717, Start Num: 49
Candidate Starts for Rota_56:
(Start: 49 @39801 has 13 MA's), (Start: 50 @39804 has 61 MA's), (Start: 60 @39816 has 2 MA's), (72, 39864), (82, 39897), (101, 39966), (126, 40056), (132, 40083), (138, 40092), (Start: 168 @40164 has 1 MA's), (189, 40251), (196, 40281), (197, 40284), (210, 40347), (246, 40437), (258, 40464), (310, 40593), (315, 40617), (321, 40659), (332, 40707), (335, 40728), (338, 40749), (345, 40806), (356, 40860), (366, 40902), (376, 40962), (400, 41058), (401, 41061), (457, 41238), (472, 41289), (496, 41376), (498, 41379), (504, 41415), (506, 41421), (516, 41475), (526, 41514), (545, 41616), (550, 41631), (555, 41652), (576, 41709),

Gene: RoyalG_59 Start: 52241, Stop: 50709, Start Num: 169
Candidate Starts for RoyalG_59:
(95, 52496), (107, 52445), (139, 52340), (151, 52310), (Start: 160 @52277 has 3 MA's), (163, 52268), (Start: 169 @52241 has 29 MA's), (Start: 198 @52118 has 29 MA's), (208, 52073), (219, 52031), (236, 51983), (238, 51980), (240, 51974), (242, 51971), (252, 51953), (261, 51932), (273, 51905), (313, 51782), (316, 51764), (334, 51677), (335, 51662), (349, 51569), (368, 51491), (372, 51467), (378, 51431), (393, 51401), (403, 51359), (415, 51314), (456, 51179), (459, 51164), (464, 51143), (500, 51059), (511, 51002), (512, 50996), (514, 50984), (525, 50933), (529, 50909), (534, 50870), (537, 50858), (538, 50855), (560, 50762), (567, 50747),

Gene: Rukungu_63 Start: 41487, Stop: 43400, Start Num: 50
Candidate Starts for Rukungu_63:
(20, 41361), (22, 41370), (23, 41382), (34, 41415), (Start: 49 @41484 has 13 MA's), (Start: 50 @41487 has 61 MA's), (Start: 60 @41499 has 2 MA's), (72, 41547), (82, 41580), (101, 41649), (126, 41739), (132, 41766), (138, 41775), (Start: 168 @41847 has 1 MA's), (189, 41934), (197, 41967), (210, 42030), (246, 42120), (310, 42276), (315, 42300), (321, 42342), (332, 42390), (335, 42411), (338, 42432),

(345, 42489), (356, 42543), (366, 42585), (376, 42645), (400, 42741), (401, 42744), (457, 42921), (472, 42972), (498, 43062), (504, 43098), (506, 43104), (516, 43158), (526, 43197), (545, 43299), (550, 43314), (555, 43335),

Gene: Rumi_61 Start: 39105, Stop: 41018, Start Num: 50
Candidate Starts for Rumi_61:
(Start: 49 @39102 has 13 MA's), (Start: 50 @39105 has 61 MA's), (Start: 60 @39117 has 2 MA's), (72, 39165), (82, 39198), (126, 39357), (132, 39384), (138, 39393), (Start: 168 @39465 has 1 MA's), (197, 39585), (210, 39648), (246, 39738), (258, 39765), (310, 39894), (315, 39918), (321, 39960), (322, 39972), (327, 39987), (332, 40008), (335, 40029), (338, 40050), (345, 40107), (349, 40125), (356, 40161), (366, 40203), (376, 40263), (400, 40359), (401, 40362), (457, 40539), (472, 40590), (498, 40680), (504, 40716), (506, 40722), (516, 40776), (526, 40815), (545, 40917), (550, 40932), (555, 40953),

Gene: Sadboi_61 Start: 41296, Stop: 43209, Start Num: 50
Candidate Starts for Sadboi_61:
(Start: 49 @41293 has 13 MA's), (Start: 50 @41296 has 61 MA's), (Start: 60 @41308 has 2 MA's), (72, 41356), (82, 41389), (101, 41458), (126, 41548), (132, 41575), (138, 41584), (Start: 168 @41656 has 1 MA's), (189, 41743), (197, 41776), (210, 41839), (246, 41929), (258, 41956), (310, 42085), (315, 42109), (321, 42151), (332, 42199), (335, 42220), (338, 42241), (345, 42298), (356, 42352), (366, 42394), (376, 42454), (400, 42550), (401, 42553), (457, 42730), (472, 42781), (498, 42871), (504, 42907), (506, 42913), (516, 42967), (526, 43006), (545, 43108), (550, 43123), (555, 43144),

Gene: Sam12_58 Start: 51466, Stop: 49934, Start Num: 169
Candidate Starts for Sam12_58:
(95, 51721), (107, 51670), (120, 51619), (139, 51565), (151, 51535), (Start: 160 @51502 has 3 MA's), (163, 51493), (Start: 169 @51466 has 29 MA's), (208, 51298), (219, 51256), (236, 51208), (242, 51196), (248, 51184), (252, 51178), (261, 51157), (273, 51130), (316, 50989), (334, 50902), (335, 50887), (337, 50875), (342, 50845), (349, 50794), (357, 50767), (368, 50716), (375, 50674), (378, 50656), (379, 50653), (393, 50626), (403, 50584), (415, 50539), (456, 50404), (459, 50389), (464, 50368), (493, 50311), (499, 50287), (500, 50284), (511, 50227), (512, 50221), (513, 50215), (514, 50209), (525, 50158), (529, 50134), (534, 50095), (537, 50083), (538, 50080), (560, 49987), (567, 49972), (576, 49951),

Gene: Sampudon_60 Start: 41637, Stop: 43553, Start Num: 49
Candidate Starts for Sampudon_60:
(Start: 49 @41637 has 13 MA's), (Start: 50 @41640 has 61 MA's), (Start: 60 @41652 has 2 MA's), (72, 41700), (101, 41802), (126, 41892), (132, 41919), (138, 41928), (Start: 168 @42000 has 1 MA's), (197, 42120), (210, 42183), (246, 42273), (258, 42300), (310, 42429), (315, 42453), (321, 42495), (332, 42543), (335, 42564), (338, 42585), (345, 42642), (356, 42696), (366, 42738), (376, 42798), (400, 42894), (401, 42897), (457, 43074), (472, 43125), (496, 43212), (498, 43215), (504, 43251), (506, 43257), (516, 43311), (526, 43350), (545, 43452), (550, 43467), (555, 43488),

Gene: Scuba_82 Start: 56215, Stop: 54161, Start Num: 38
Candidate Starts for Scuba_82:
(7, 56488), (Start: 38 @56215 has 37 MA's), (75, 56062), (Start: 84 @56047 has 3 MA's), (103, 55966), (148, 55843), (157, 55813), (189, 55705), (197, 55672), (207, 55621), (216, 55588), (253, 55498), (265, 55465), (279, 55435), (323, 55279), (335, 55228), (349, 55132), (353, 55099), (363, 55063), (368, 55036), (392, 54913), (408, 54844), (414, 54826), (418, 54814), (460, 54652), (467, 54613), (474, 54583), (479, 54568), (504, 54466), (517, 54403), (532, 54322), (539, 54298), (553, 54238),

Gene: Send513_66 Start: 47939, Stop: 49699, Start Num: 150
Candidate Starts for Send513_66:

(Start: 150 @47939 has 10 MA's), (173, 48008), (194, 48104), (Start: 198 @48113 has 29 MA's), (216, 48194), (232, 48239), (310, 48440), (320, 48488), (331, 48548), (334, 48560), (343, 48626), (364, 48749), (368, 48773), (372, 48797), (392, 49001), (400, 49034), (404, 49049), (414, 49088), (415, 49091), (418, 49100), (442, 49169), (479, 49301), (504, 49424), (505, 49427), (512, 49454), (516, 49484), (518, 49490), (519, 49493), (523, 49511), (526, 49523), (555, 49658), (563, 49688),

Gene: Shelley_57 Start: 52086, Stop: 50674, Start Num: 198
Candidate Starts for Shelley_57:
(95, 52434), (128, 52305), (Start: 160 @52215 has 3 MA's), (Start: 198 @52086 has 29 MA's), (208, 52041), (236, 51951), (238, 51948), (240, 51942), (252, 51921), (278, 51858), (301, 51780), (313, 51750), (316, 51732), (334, 51645), (335, 51630), (342, 51588), (358, 51507), (368, 51459), (375, 51417), (378, 51399), (379, 51396), (393, 51369), (405, 51318), (415, 51282), (425, 51231), (456, 51147), (461, 51126), (511, 50970), (512, 50964), (514, 50952), (537, 50826), (567, 50712),

Gene: Shocker_54 Start: 41341, Stop: 39593, Start Num: 170
Candidate Starts for Shocker_54:
(58, 41743), (61, 41740), (134, 41455), (Start: 170 @41341 has 2 MA's), (240, 41068), (282, 40945), (287, 40927), (292, 40906), (312, 40867), (317, 40843), (320, 40825), (328, 40783), (330, 40780), (352, 40630), (358, 40597), (360, 40591), (373, 40522), (383, 40420), (386, 40381), (406, 40288), (412, 40267), (419, 40237), (420, 40231), (442, 40150), (453, 40108), (467, 40051), (475, 40018), (493, 39952), (504, 39892), (505, 39889), (507, 39883), (534, 39742), (540, 39718), (541, 39712), (542, 39706), (548, 39688), (551, 39676), (557, 39652), (565, 39625),

Gene: Sienna_50 Start: 36692, Stop: 38746, Start Num: 52
Candidate Starts for Sienna_50:
(Start: 52 @36692 has 10 MA's), (64, 36716), (85, 36779), (105, 36863), (116, 36905), (187, 37127), (197, 37163), (216, 37238), (229, 37277), (252, 37319), (261, 37337), (267, 37358), (271, 37370), (289, 37430), (294, 37445), (310, 37463), (322, 37541), (327, 37556), (328, 37559), (335, 37598), (338, 37619), (355, 37721), (368, 37778), (371, 37799), (372, 37802), (374, 37814), (388, 37862), (390, 37868), (401, 37916), (408, 37949), (415, 37973), (420, 37991), (424, 38021), (433, 38144), (436, 38177), (438, 38189), (442, 38204), (452, 38243), (465, 38288), (472, 38315), (495, 38399), (509, 38462), (516, 38504), (519, 38513), (521, 38522), (530, 38570), (531, 38579), (532, 38591), (536, 38606), (546, 38648),

Gene: SirHarley_54 Start: 39905, Stop: 41848, Start Num: 50
Candidate Starts for SirHarley_54:
(39, 39842), (Start: 50 @39905 has 61 MA's), (63, 39932), (83, 40004), (97, 40058), (114, 40118), (119, 40145), (137, 40196), (154, 40238), (Start: 168 @40274 has 1 MA's), (189, 40361), (209, 40454), (211, 40469), (219, 40490), (267, 40592), (278, 40625), (285, 40649), (312, 40709), (327, 40796), (340, 40871), (356, 40961), (368, 41012), (369, 41015), (388, 41105), (392, 41123), (400, 41156), (418, 41222), (421, 41240), (442, 41303), (465, 41387), (498, 41504), (504, 41552), (517, 41615), (532, 41699),

Gene: Skysand_75 Start: 57318, Stop: 55261, Start Num: 38
Candidate Starts for Skysand_75:
(6, 57606), (10, 57498), (Start: 38 @57318 has 37 MA's), (148, 56943), (190, 56802), (201, 56751), (215, 56691), (216, 56688), (243, 56616), (253, 56598), (279, 56535), (280, 56529), (316, 56436), (321, 56397), (323, 56379), (331, 56355), (349, 56232), (353, 56199), (368, 56136), (392, 56013), (408, 55944), (414, 55926), (442, 55821), (460, 55752), (467, 55713), (473, 55689), (474, 55683), (491, 55626), (504, 55566), (512, 55536), (517, 55503), (553, 55338), (567, 55296),

Gene: Sombrero_60 Start: 52033, Stop: 50501, Start Num: 169
Candidate Starts for Sombrero_60:

(95, 52288), (107, 52237), (139, 52132), (151, 52102), (Start: 160 @52069 has 3 MA's), (163, 52060), (Start: 169 @52033 has 29 MA's), (208, 51865), (219, 51823), (236, 51775), (242, 51763), (248, 51751), (252, 51745), (261, 51724), (316, 51556), (334, 51469), (335, 51454), (337, 51442), (342, 51412), (349, 51361), (368, 51283), (372, 51259), (375, 51241), (378, 51223), (379, 51220), (389, 51211), (393, 51193), (415, 51106), (456, 50971), (459, 50956), (464, 50935), (499, 50854), (500, 50851), (511, 50794), (512, 50788), (514, 50776), (525, 50725), (529, 50701), (534, 50662), (537, 50650), (538, 50647), (560, 50554), (567, 50539), (576, 50518),

Gene: Squibbles_58 Start: 52329, Stop: 50797, Start Num: 169
Candidate Starts for Squibbles_58:
(95, 52584), (107, 52533), (120, 52482), (139, 52428), (151, 52398), (Start: 160 @52365 has 3 MA's), (163, 52356), (Start: 169 @52329 has 29 MA's), (208, 52161), (219, 52119), (236, 52071), (242, 52059), (248, 52047), (252, 52041), (261, 52020), (273, 51993), (316, 51852), (334, 51765), (335, 51750), (337, 51738), (342, 51708), (349, 51657), (357, 51630), (368, 51579), (375, 51537), (378, 51519), (379, 51516), (393, 51489), (403, 51447), (415, 51402), (456, 51267), (459, 51252), (464, 51231), (493, 51174), (500, 51147), (511, 51090), (512, 51084), (513, 51078), (514, 51072), (525, 51021), (529, 50997), (534, 50958), (537, 50946), (538, 50943), (560, 50850), (567, 50835), (576, 50814),

Gene: Srilaccoli3_54 Start: 49904, Stop: 48411, Start Num: 181
Candidate Starts for Srilaccoli3_54:
(Start: 181 @49904 has 4 MA's), (186, 49868), (195, 49835), (Start: 198 @49826 has 29 MA's), (199, 49817), (201, 49808), (204, 49799), (208, 49781), (231, 49721), (236, 49709), (240, 49700), (295, 49553), (319, 49472), (367, 49220), (368, 49217), (375, 49175), (379, 49154), (395, 49115), (398, 49103), (399, 49100), (411, 49070), (454, 48923), (462, 48887), (514, 48674), (522, 48632), (532, 48566), (551, 48491), (555, 48476),

Gene: StarStruck_73 Start: 56760, Stop: 54685, Start Num: 38
Candidate Starts for StarStruck_73:
(Start: 38 @56760 has 37 MA's), (67, 56640), (Start: 78 @56595 has 1 MA's), (80, 56592), (157, 56349), (178, 56292), (189, 56241), (201, 56187), (216, 56124), (253, 56034), (254, 56031), (262, 56007), (279, 55971), (323, 55815), (331, 55791), (349, 55668), (368, 55557), (372, 55533), (392, 55434), (405, 55380), (420, 55326), (426, 55284), (442, 55245), (460, 55176), (465, 55143), (474, 55107), (488, 55062), (491, 55050), (504, 54990), (517, 54927), (532, 54846), (553, 54762),

Gene: SteveFrench_58 Start: 52481, Stop: 50949, Start Num: 169
Candidate Starts for SteveFrench_58:
(95, 52736), (107, 52685), (139, 52580), (151, 52550), (Start: 160 @52517 has 3 MA's), (163, 52508), (Start: 169 @52481 has 29 MA's), (Start: 198 @52358 has 29 MA's), (208, 52313), (219, 52271), (236, 52223), (238, 52220), (240, 52214), (242, 52211), (252, 52193), (261, 52172), (273, 52145), (313, 52022), (316, 52004), (334, 51917), (335, 51902), (349, 51809), (368, 51731), (372, 51707), (378, 51671), (393, 51641), (403, 51599), (415, 51554), (456, 51419), (459, 51404), (464, 51383), (500, 51299), (511, 51242), (512, 51236), (514, 51224), (525, 51173), (529, 51149), (534, 51110), (537, 51098), (538, 51095), (560, 51002), (567, 50987),

Gene: Sticker17_57 Start: 52601, Stop: 51189, Start Num: 198
Candidate Starts for Sticker17_57:
(95, 52949), (128, 52820), (159, 52733), (Start: 160 @52730 has 3 MA's), (Start: 198 @52601 has 29 MA's), (208, 52556), (236, 52466), (238, 52463), (240, 52457), (252, 52436), (278, 52373), (313, 52265), (316, 52247), (334, 52160), (335, 52145), (342, 52103), (358, 52022), (368, 51974), (375, 51932), (378, 51914), (379, 51911), (393, 51884), (405, 51833), (415, 51797), (425, 51746), (456, 51662), (461, 51641), (511, 51485), (512, 51479), (514, 51467), (537, 51341), (567, 51227),

Gene: Stickynote_71 Start: 52712, Stop: 50787, Start Num: 59
Candidate Starts for Stickynote_71:
(33, 52805), (Start: 59 @52712 has 8 MA's), (108, 52541), (123, 52487), (189, 52283), (229, 52127), (253, 52076), (254, 52073), (274, 52031), (311, 51944), (312, 51941), (322, 51869), (325, 51860), (392, 51503), (400, 51470), (415, 51413), (491, 51131), (506, 51065), (509, 51053), (513, 51035), (514, 51029), (517, 51008), (530, 50945), (536, 50912), (545, 50873),

Gene: Stormer_60 Start: 39109, Stop: 41022, Start Num: 50
Candidate Starts for Stormer_60:
(Start: 49 @39106 has 13 MA's), (Start: 50 @39109 has 61 MA's), (Start: 60 @39121 has 2 MA's), (72, 39169), (82, 39202), (126, 39361), (132, 39388), (138, 39397), (Start: 168 @39469 has 1 MA's), (197, 39589), (210, 39652), (246, 39742), (258, 39769), (310, 39898), (315, 39922), (321, 39964), (322, 39976), (327, 39991), (332, 40012), (335, 40033), (338, 40054), (345, 40111), (349, 40129), (356, 40165), (366, 40207), (376, 40267), (400, 40363), (401, 40366), (457, 40543), (472, 40594), (498, 40684), (504, 40720), (506, 40726), (516, 40780), (526, 40819), (545, 40921), (550, 40936), (555, 40957),

Gene: Sukkupi_71 Start: 54175, Stop: 52319, Start Num: 96
Candidate Starts for Sukkupi_71:
(9, 54592), (11, 54574), (18, 54499), (Start: 38 @54400 has 37 MA's), (Start: 96 @54175 has 3 MA's), (189, 53881), (197, 53848), (201, 53827), (212, 53773), (215, 53767), (216, 53764), (253, 53674), (254, 53671), (279, 53611), (323, 53455), (349, 53308), (368, 53200), (372, 53176), (392, 53074), (405, 53020), (408, 53005), (426, 52924), (442, 52885), (458, 52822), (465, 52783), (467, 52777), (474, 52747), (504, 52630), (517, 52567), (530, 52504), (532, 52486), (553, 52402),

Gene: SuperSonics_79 Start: 49055, Stop: 51088, Start Num: 53
Candidate Starts for SuperSonics_79:
(30, 48965), (Start: 53 @49055 has 3 MA's), (63, 49079), (Start: 78 @49142 has 1 MA's), (98, 49208), (113, 49262), (148, 49370), (158, 49403), (172, 49442), (179, 49466), (193, 49529), (197, 49547), (Start: 198 @49550 has 29 MA's), (201, 49568), (203, 49574), (223, 49643), (235, 49670), (237, 49682), (255, 49715), (287, 49817), (322, 49940), (331, 49970), (345, 50075), (349, 50093), (367, 50183), (368, 50186), (381, 50288), (382, 50327), (390, 50354), (392, 50366), (404, 50414), (407, 50432), (414, 50459), (418, 50471), (420, 50480), (467, 50618), (479, 50663), (503, 50768), (530, 50897), (536, 50930), (540, 50948), (554, 51002), (567, 51041),

Gene: SuperSulley_74 Start: 57198, Stop: 55111, Start Num: 38
Candidate Starts for SuperSulley_74:
(Start: 38 @57198 has 37 MA's), (67, 57078), (Start: 78 @57033 has 1 MA's), (80, 57030), (157, 56775), (189, 56667), (201, 56613), (216, 56550), (253, 56460), (254, 56457), (262, 56433), (279, 56397), (321, 56259), (323, 56241), (327, 56232), (331, 56217), (349, 56094), (363, 56010), (368, 55983), (372, 55959), (392, 55860), (405, 55806), (420, 55752), (426, 55710), (442, 55671), (460, 55602), (465, 55569), (474, 55533), (488, 55488), (491, 55476), (504, 55416), (506, 55410), (517, 55353), (553, 55188), (559, 55164),

Gene: SuperheroCarly_53 Start: 39596, Stop: 41566, Start Num: 45
Candidate Starts for SuperheroCarly_53:
(Start: 45 @39596 has 1 MA's), (Start: 47 @39611 has 1 MA's), (Start: 50 @39623 has 61 MA's), (63, 39650), (83, 39722), (97, 39776), (114, 39836), (119, 39863), (137, 39914), (154, 39956), (Start: 168 @39992 has 1 MA's), (189, 40079), (209, 40172), (211, 40187), (219, 40208), (267, 40310), (278, 40343), (285, 40367), (312, 40427), (327, 40514), (340, 40589), (356, 40679), (368, 40730), (369, 40733), (388, 40823), (392, 40841), (400, 40874), (414, 40928), (418, 40940), (421, 40958), (442, 41021), (465, 41105), (498, 41222), (504, 41270), (517, 41333), (532, 41417),

Gene: Suzy_49 Start: 37573, Stop: 39624, Start Num: 52
Candidate Starts for Suzy_49:
(Start: 52 @37573 has 10 MA's), (85, 37660), (100, 37720), (105, 37744), (116, 37786), (187, 38008), (197, 38044), (252, 38200), (261, 38218), (267, 38239), (271, 38251), (289, 38311), (294, 38326), (310, 38344), (322, 38422), (327, 38437), (328, 38440), (335, 38479), (338, 38500), (368, 38659), (371, 38680), (372, 38683), (374, 38695), (388, 38743), (390, 38749), (391, 38755), (408, 38830), (420, 38872), (424, 38902), (433, 39025), (436, 39058), (438, 39070), (452, 39124), (472, 39196), (474, 39205), (495, 39280), (507, 39334), (516, 39385), (521, 39403), (530, 39451), (531, 39460), (532, 39472), (536, 39487), (546, 39529), (554, 39559),

Gene: Teal_57 Start: 53068, Stop: 51656, Start Num: 198
Candidate Starts for Teal_57:
(95, 53416), (128, 53287), (159, 53200), (Start: 160 @53197 has 3 MA's), (Start: 198 @53068 has 29 MA's), (208, 53023), (236, 52933), (238, 52930), (240, 52924), (252, 52903), (278, 52840), (313, 52732), (316, 52714), (334, 52627), (335, 52612), (342, 52570), (358, 52489), (368, 52441), (375, 52399), (378, 52381), (379, 52378), (393, 52351), (405, 52300), (415, 52264), (425, 52213), (456, 52129), (461, 52108), (511, 51952), (512, 51946), (514, 51934), (537, 51808), (567, 51694),

Gene: Teatealatte_58 Start: 53221, Stop: 51518, Start Num: 111
Candidate Starts for Teatealatte_58:
(Start: 111 @53221 has 9 MA's), (Start: 115 @53209 has 2 MA's), (171, 53026), (Start: 198 @52936 has 29 MA's), (199, 52927), (208, 52891), (213, 52867), (217, 52858), (219, 52849), (236, 52801), (242, 52789), (248, 52777), (275, 52720), (278, 52705), (279, 52702), (284, 52684), (293, 52648), (294, 52645), (328, 52516), (330, 52513), (335, 52477), (336, 52474), (338, 52456), (339, 52447), (342, 52435), (348, 52387), (358, 52354), (368, 52306), (372, 52282), (393, 52216), (415, 52117), (446, 52018), (455, 51985), (456, 51982), (485, 51916), (499, 51865), (500, 51862), (511, 51805), (514, 51787), (534, 51670), (535, 51667), (538, 51655), (567, 51556), (576, 51535),

Gene: Teech_58 Start: 53022, Stop: 51319, Start Num: 111
Candidate Starts for Teech_58:
(Start: 111 @53022 has 9 MA's), (Start: 115 @53010 has 2 MA's), (171, 52827), (Start: 198 @52737 has 29 MA's), (199, 52728), (208, 52692), (213, 52668), (217, 52659), (219, 52650), (236, 52602), (248, 52578), (278, 52506), (284, 52485), (293, 52449), (294, 52446), (328, 52317), (330, 52314), (335, 52278), (336, 52275), (338, 52257), (339, 52248), (342, 52236), (348, 52188), (358, 52155), (368, 52107), (372, 52083), (393, 52017), (415, 51918), (446, 51819), (448, 51810), (455, 51786), (456, 51783), (485, 51717), (499, 51666), (500, 51663), (511, 51606), (514, 51588), (534, 51471), (535, 51468), (538, 51456), (567, 51357), (576, 51336),

Gene: Terapin_51 Start: 36616, Stop: 38670, Start Num: 52
Candidate Starts for Terapin_51:
(Start: 52 @36616 has 10 MA's), (64, 36640), (85, 36703), (105, 36787), (116, 36829), (187, 37051), (197, 37087), (216, 37162), (229, 37201), (252, 37243), (261, 37261), (267, 37282), (271, 37294), (289, 37354), (294, 37369), (310, 37387), (322, 37465), (327, 37480), (328, 37483), (335, 37522), (338, 37543), (355, 37645), (368, 37702), (371, 37723), (372, 37726), (374, 37738), (388, 37786), (390, 37792), (401, 37840), (408, 37873), (415, 37897), (420, 37915), (424, 37945), (433, 38068), (436, 38101), (438, 38113), (442, 38128), (452, 38167), (465, 38212), (472, 38239), (495, 38323), (509, 38386), (516, 38428), (519, 38437), (521, 38446), (530, 38494), (531, 38503), (532, 38515), (536, 38530), (546, 38572),

Gene: Thoth_53 Start: 39727, Stop: 41670, Start Num: 50
Candidate Starts for Thoth_53:
(Start: 50 @39727 has 61 MA's), (63, 39754), (83, 39826), (97, 39880), (114, 39940), (118, 39958), (119, 39967), (137, 40018), (154, 40060), (Start: 168 @40096 has 1 MA's), (189, 40183), (209, 40276),

(211, 40291), (219, 40312), (267, 40414), (278, 40447), (285, 40471), (312, 40531), (327, 40618), (340, 40693), (356, 40783), (368, 40834), (369, 40837), (388, 40927), (392, 40945), (400, 40978), (414, 41032), (418, 41044), (421, 41062), (442, 41125), (465, 41209), (498, 41326), (504, 41374), (517, 41437), (532, 41521),

Gene: Thumb_62 Start: 46085, Stop: 48142, Start Num: 50
Candidate Starts for Thumb_62:
(Start: 50 @46085 has 61 MA's), (70, 46145), (71, 46148), (Start: 96 @46241 has 3 MA's), (100, 46253), (103, 46274), (143, 46397), (144, 46400), (148, 46409), (158, 46442), (161, 46463), (172, 46511), (197, 46616), (201, 46637), (203, 46643), (218, 46697), (287, 46883), (289, 46895), (299, 46913), (310, 46928), (312, 46934), (368, 47252), (369, 47255), (376, 47300), (390, 47351), (392, 47363), (414, 47453), (418, 47465), (423, 47498), (436, 47522), (437, 47531), (467, 47621), (475, 47654), (503, 47765), (504, 47768), (505, 47771), (506, 47774), (516, 47828), (530, 47894), (532, 47912), (578, 48089),

Gene: Tillicus_56 Start: 39985, Stop: 41907, Start Num: 51
Candidate Starts for Tillicus_56:
(21, 39862), (25, 39883), (32, 39904), (43, 39934), (46, 39967), (Start: 49 @39979 has 13 MA's), (Start: 51 @39985 has 1 MA's), (Start: 60 @40003 has 2 MA's), (63, 40015), (72, 40051), (82, 40084), (85, 40087), (Start: 96 @40135 has 3 MA's), (101, 40153), (126, 40243), (130, 40261), (132, 40270), (138, 40279), (Start: 168 @40351 has 1 MA's), (197, 40471), (Start: 198 @40474 has 29 MA's), (210, 40534), (217, 40552), (246, 40624), (258, 40651), (312, 40786), (315, 40804), (321, 40846), (325, 40867), (327, 40873), (335, 40915), (338, 40936), (342, 40957), (345, 40993), (356, 41050), (360, 41062), (366, 41092), (367, 41101), (376, 41152), (400, 41248), (401, 41251), (439, 41362), (451, 41410), (465, 41452), (472, 41479), (495, 41563), (514, 41647), (516, 41665), (522, 41689), (526, 41704), (532, 41752), (536, 41767), (545, 41806), (550, 41821), (555, 41842), (576, 41899),

Gene: Tracker_72 Start: 55556, Stop: 53490, Start Num: 38
Candidate Starts for Tracker_72:
(8, 55760), (9, 55748), (11, 55730), (Start: 38 @55556 has 37 MA's), (Start: 73 @55418 has 2 MA's), (77, 55394), (141, 55190), (157, 55145), (189, 55037), (215, 54923), (216, 54920), (253, 54830), (254, 54827), (279, 54767), (321, 54629), (323, 54611), (331, 54587), (349, 54464), (368, 54359), (392, 54233), (405, 54179), (440, 54053), (442, 54044), (448, 54020), (465, 53948), (467, 53942), (474, 53912), (491, 53855), (504, 53795), (517, 53732), (532, 53651),

Gene: Tredge_57 Start: 53221, Stop: 51518, Start Num: 111
Candidate Starts for Tredge_57:
(Start: 111 @53221 has 9 MA's), (Start: 115 @53209 has 2 MA's), (171, 53026), (Start: 198 @52936 has 29 MA's), (199, 52927), (208, 52891), (213, 52867), (217, 52858), (219, 52849), (236, 52801), (242, 52789), (248, 52777), (275, 52720), (278, 52705), (279, 52702), (284, 52684), (293, 52648), (294, 52645), (328, 52516), (330, 52513), (335, 52477), (336, 52474), (338, 52456), (339, 52447), (342, 52435), (348, 52387), (358, 52354), (368, 52306), (372, 52282), (393, 52216), (415, 52117), (446, 52018), (455, 51985), (456, 51982), (485, 51916), (499, 51865), (500, 51862), (511, 51805), (514, 51787), (534, 51670), (535, 51667), (538, 51655), (567, 51556), (576, 51535),

Gene: Trogglehumper_76 Start: 59717, Stop: 58170, Start Num: 170
Candidate Starts for Trogglehumper_76:
(133, 59828), (159, 59762), (Start: 170 @59717 has 2 MA's), (200, 59600), (208, 59567), (219, 59525), (225, 59519), (236, 59495), (270, 59429), (272, 59420), (273, 59417), (288, 59354), (301, 59315), (319, 59249), (333, 59183), (335, 59165), (337, 59153), (339, 59135), (346, 59087), (347, 59081), (368, 59003), (375, 58961), (378, 58943), (399, 58886), (402, 58877), (444, 58751), (455, 58709), (456, 58706), (461, 58685), (471, 58652), (483, 58595), (514, 58445), (518, 58421), (529, 58370), (546, 58280), (556, 58241), (564, 58220), (570, 58208), (572, 58205), (577, 58193),

Gene: Troll4_53 Start: 39859, Stop: 41802, Start Num: 50
Candidate Starts for Troll4_53:
(Start: 50 @39859 has 61 MA's), (63, 39886), (83, 39958), (97, 40012), (114, 40072), (118, 40090), (119, 40099), (137, 40150), (154, 40192), (Start: 168 @40228 has 1 MA's), (189, 40315), (209, 40408), (211, 40423), (219, 40444), (267, 40546), (278, 40579), (285, 40603), (312, 40663), (327, 40750), (340, 40825), (356, 40915), (368, 40966), (369, 40969), (388, 41059), (392, 41077), (400, 41110), (414, 41164), (418, 41176), (421, 41194), (442, 41257), (465, 41341), (498, 41458), (504, 41506), (517, 41569), (532, 41653),

Gene: Turuncu_75 Start: 56841, Stop: 54784, Start Num: 38
Candidate Starts for Turuncu_75:
(6, 57126), (11, 57009), (13, 56991), (Start: 38 @56841 has 37 MA's), (189, 56328), (201, 56274), (209, 56238), (216, 56211), (247, 56133), (253, 56121), (279, 56058), (280, 56052), (316, 55959), (321, 55920), (323, 55902), (349, 55755), (353, 55722), (361, 55692), (363, 55686), (368, 55659), (392, 55536), (408, 55467), (414, 55449), (442, 55344), (445, 55335), (460, 55275), (467, 55236), (474, 55206), (480, 55188), (491, 55149), (504, 55089), (512, 55059), (517, 55026), (527, 54984), (562, 54828),

Gene: Visconti_54 Start: 39739, Stop: 41682, Start Num: 50
Candidate Starts for Visconti_54:
(Start: 50 @39739 has 61 MA's), (63, 39766), (83, 39838), (97, 39892), (114, 39952), (118, 39970), (119, 39979), (137, 40030), (154, 40072), (Start: 168 @40108 has 1 MA's), (189, 40195), (209, 40288), (211, 40303), (219, 40324), (267, 40426), (278, 40459), (285, 40483), (312, 40543), (327, 40630), (340, 40705), (356, 40795), (368, 40846), (369, 40849), (388, 40939), (392, 40957), (400, 40990), (414, 41044), (418, 41056), (421, 41074), (442, 41137), (465, 41221), (498, 41338), (504, 41386), (517, 41449), (532, 41533),

Gene: Vitaenoii_57 Start: 53928, Stop: 52234, Start Num: 111
Candidate Starts for Vitaenoii_57:
(Start: 111 @53928 has 9 MA's), (Start: 115 @53916 has 2 MA's), (Start: 153 @53796 has 1 MA's), (165, 53763), (171, 53733), (199, 53634), (208, 53598), (213, 53574), (217, 53565), (219, 53556), (236, 53508), (238, 53505), (240, 53499), (242, 53496), (288, 53373), (294, 53352), (314, 53292), (330, 53220), (334, 53199), (335, 53184), (336, 53181), (337, 53172), (368, 53013), (377, 52962), (379, 52950), (388, 52944), (393, 52923), (404, 52878), (415, 52833), (423, 52791), (446, 52734), (454, 52704), (455, 52701), (456, 52698), (482, 52644), (511, 52521), (514, 52503), (534, 52386), (535, 52383), (538, 52371), (576, 52251),

Gene: WaldoWhy_55 Start: 39836, Stop: 41779, Start Num: 50
Candidate Starts for WaldoWhy_55:
(Start: 50 @39836 has 61 MA's), (63, 39863), (83, 39935), (97, 39989), (114, 40049), (118, 40067), (119, 40076), (137, 40127), (154, 40169), (Start: 168 @40205 has 1 MA's), (189, 40292), (209, 40385), (211, 40400), (219, 40421), (267, 40523), (278, 40556), (285, 40580), (312, 40640), (327, 40727), (340, 40802), (356, 40892), (368, 40943), (369, 40946), (388, 41036), (392, 41054), (400, 41087), (414, 41141), (418, 41153), (421, 41171), (442, 41234), (465, 41318), (498, 41435), (504, 41483), (517, 41546), (532, 41630),

Gene: Weiss13_66 Start: 47645, Stop: 49405, Start Num: 150
Candidate Starts for Weiss13_66:
(Start: 150 @47645 has 10 MA's), (173, 47714), (194, 47810), (Start: 198 @47819 has 29 MA's), (216, 47900), (232, 47945), (310, 48146), (320, 48194), (331, 48254), (334, 48266), (343, 48332), (364, 48455), (368, 48479), (372, 48503), (392, 48707), (400, 48740), (404, 48755), (414, 48794), (415, 48797), (418, 48806), (442, 48875), (479, 49007), (504, 49130), (505, 49133), (512, 49160), (516,

49190), (518, 49196), (519, 49199), (523, 49217), (526, 49229), (555, 49364), (563, 49394),

Gene: Wheezy_72 Start: 55632, Stop: 53704, Start Num: 73
Candidate Starts for Wheezy_72:
(8, 55974), (9, 55962), (11, 55944), (Start: 38 @55770 has 37 MA's), (Start: 73 @55632 has 2 MA's), (77, 55608), (141, 55404), (157, 55359), (189, 55251), (215, 55137), (216, 55134), (253, 55044), (254, 55041), (279, 54981), (321, 54843), (323, 54825), (331, 54801), (349, 54678), (368, 54573), (392, 54447), (405, 54393), (440, 54267), (442, 54258), (448, 54234), (465, 54162), (467, 54156), (474, 54126), (491, 54069), (504, 54009), (517, 53946), (532, 53865),

Gene: WhoseManz_71 Start: 52415, Stop: 50334, Start Num: 38
Candidate Starts for WhoseManz_71:
(9, 52607), (11, 52589), (18, 52514), (Start: 38 @52415 has 37 MA's), (189, 51896), (197, 51863), (201, 51842), (212, 51788), (215, 51782), (216, 51779), (253, 51689), (254, 51686), (279, 51626), (323, 51470), (349, 51323), (368, 51215), (372, 51191), (392, 51089), (405, 51035), (408, 51020), (426, 50939), (442, 50900), (458, 50837), (465, 50798), (467, 50792), (474, 50762), (504, 50645), (517, 50582), (530, 50519), (532, 50501), (553, 50417),

Gene: Woes_57 Start: 53248, Stop: 51707, Start Num: 160
Candidate Starts for Woes_57:
(95, 53467), (128, 53338), (159, 53251), (Start: 160 @53248 has 3 MA's), (Start: 198 @53119 has 29 MA's), (208, 53074), (236, 52984), (238, 52981), (240, 52975), (252, 52954), (278, 52891), (313, 52783), (316, 52765), (334, 52678), (335, 52663), (342, 52621), (358, 52540), (368, 52492), (375, 52450), (378, 52432), (379, 52429), (393, 52402), (405, 52351), (415, 52315), (425, 52264), (456, 52180), (461, 52159), (511, 52003), (512, 51997), (514, 51985), (537, 51859), (567, 51745),

Gene: Wojtek_56 Start: 39665, Stop: 41593, Start Num: 49
Candidate Starts for Wojtek_56:
(25, 39569), (28, 39578), (32, 39590), (43, 39620), (46, 39653), (Start: 49 @39665 has 13 MA's), (Start: 51 @39671 has 1 MA's), (Start: 60 @39689 has 2 MA's), (64, 39704), (72, 39737), (82, 39770), (85, 39773), (101, 39839), (119, 39911), (126, 39929), (130, 39947), (132, 39956), (138, 39965), (Start: 168 @40037 has 1 MA's), (197, 40157), (Start: 198 @40160 has 29 MA's), (210, 40220), (217, 40238), (246, 40310), (258, 40337), (312, 40472), (315, 40490), (321, 40532), (325, 40553), (327, 40559), (335, 40601), (338, 40622), (342, 40643), (345, 40679), (356, 40736), (360, 40748), (366, 40778), (367, 40787), (376, 40838), (400, 40934), (401, 40937), (439, 41048), (465, 41138), (472, 41165), (498, 41255), (514, 41333), (516, 41351), (522, 41375), (526, 41390), (545, 41492), (550, 41507), (555, 41528),

Gene: Worcestershire_58 Start: 51468, Stop: 49936, Start Num: 169
Candidate Starts for Worcestershire_58:
(95, 51723), (107, 51672), (120, 51621), (139, 51567), (151, 51537), (Start: 160 @51504 has 3 MA's), (163, 51495), (Start: 169 @51468 has 29 MA's), (208, 51300), (219, 51258), (236, 51210), (242, 51198), (248, 51186), (252, 51180), (261, 51159), (273, 51132), (316, 50991), (334, 50904), (335, 50889), (337, 50877), (342, 50847), (349, 50796), (357, 50769), (368, 50718), (372, 50694), (375, 50676), (378, 50658), (379, 50655), (393, 50628), (403, 50586), (415, 50541), (456, 50406), (459, 50391), (464, 50370), (499, 50289), (500, 50286), (511, 50229), (512, 50223), (513, 50217), (514, 50211), (529, 50136), (534, 50097), (537, 50085), (538, 50082), (560, 49989), (567, 49974), (576, 49953),

Gene: Xenia2_58 Start: 39008, Stop: 40912, Start Num: 60
Candidate Starts for Xenia2_58:
(Start: 49 @38990 has 13 MA's), (Start: 50 @38993 has 61 MA's), (Start: 60 @39008 has 2 MA's), (72, 39056), (82, 39089), (85, 39092), (132, 39275), (138, 39284), (Start: 168 @39356 has 1 MA's), (172,

39371), (175, 39380), (Start: 198 @39479 has 29 MA's), (210, 39539), (289, 39752), (310, 39785), (327, 39878), (331, 39893), (335, 39920), (338, 39941), (356, 40055), (366, 40097), (367, 40106), (374, 40145), (376, 40157), (388, 40202), (390, 40208), (400, 40253), (404, 40268), (438, 40361), (465, 40454), (504, 40607), (514, 40649), (516, 40667), (517, 40670), (545, 40808), (555, 40844), (575, 40898),

Gene: Yelo_65 Start: 48022, Stop: 49782, Start Num: 150
Candidate Starts for Yelo_65:
(Start: 150 @48022 has 10 MA's), (173, 48091), (194, 48187), (Start: 198 @48196 has 29 MA's), (216, 48277), (232, 48322), (310, 48523), (320, 48571), (331, 48631), (334, 48643), (343, 48709), (364, 48832), (368, 48856), (372, 48880), (392, 49084), (400, 49117), (404, 49132), (414, 49171), (415, 49174), (418, 49183), (442, 49252), (479, 49384), (504, 49507), (505, 49510), (512, 49537), (516, 49567), (518, 49573), (519, 49576), (523, 49594), (526, 49606), (555, 49741), (563, 49771),

Gene: Yikes_62 Start: 41734, Stop: 43647, Start Num: 50
Candidate Starts for Yikes_62:
(20, 41608), (22, 41617), (23, 41629), (34, 41662), (46, 41719), (Start: 49 @41731 has 13 MA's), (Start: 50 @41734 has 61 MA's), (Start: 60 @41746 has 2 MA's), (72, 41794), (82, 41827), (101, 41896), (126, 41986), (132, 42013), (138, 42022), (Start: 168 @42094 has 1 MA's), (197, 42214), (210, 42277), (246, 42367), (258, 42394), (310, 42523), (315, 42547), (321, 42589), (332, 42637), (335, 42658), (338, 42679), (345, 42736), (356, 42790), (366, 42832), (376, 42892), (400, 42988), (401, 42991), (457, 43168), (472, 43219), (498, 43309), (504, 43345), (506, 43351), (516, 43405), (526, 43444), (545, 43546), (550, 43561), (555, 43582),

Gene: Yndexa_71 Start: 54175, Stop: 52319, Start Num: 96
Candidate Starts for Yndexa_71:
(9, 54592), (11, 54574), (18, 54499), (Start: 38 @54400 has 37 MA's), (Start: 96 @54175 has 3 MA's), (189, 53881), (197, 53848), (201, 53827), (212, 53773), (215, 53767), (216, 53764), (253, 53674), (254, 53671), (279, 53611), (323, 53455), (349, 53308), (368, 53200), (372, 53176), (392, 53074), (405, 53020), (408, 53005), (426, 52924), (442, 52885), (458, 52822), (465, 52783), (467, 52777), (474, 52747), (504, 52630), (517, 52567), (530, 52504), (532, 52486), (553, 52402),

Gene: Zany_58 Start: 41140, Stop: 43056, Start Num: 49
Candidate Starts for Zany_58:
(Start: 49 @41140 has 13 MA's), (Start: 50 @41143 has 61 MA's), (Start: 60 @41155 has 2 MA's), (72, 41203), (82, 41236), (101, 41305), (126, 41395), (132, 41422), (138, 41431), (Start: 168 @41503 has 1 MA's), (197, 41623), (210, 41686), (219, 41713), (246, 41776), (258, 41803), (310, 41932), (315, 41956), (321, 41998), (332, 42046), (335, 42067), (338, 42088), (345, 42145), (356, 42199), (366, 42241), (376, 42301), (400, 42397), (401, 42400), (472, 42628), (498, 42718), (504, 42754), (506, 42760), (516, 42814), (526, 42853), (545, 42955), (550, 42970), (555, 42991),

Gene: Zenon_68 Start: 47968, Stop: 49728, Start Num: 150
Candidate Starts for Zenon_68:
(Start: 150 @47968 has 10 MA's), (173, 48037), (194, 48133), (Start: 198 @48142 has 29 MA's), (216, 48223), (232, 48268), (310, 48469), (320, 48517), (331, 48577), (334, 48589), (343, 48655), (364, 48778), (368, 48802), (372, 48826), (392, 49030), (400, 49063), (404, 49078), (414, 49117), (415, 49120), (418, 49129), (442, 49198), (479, 49330), (504, 49453), (505, 49456), (512, 49483), (516, 49513), (518, 49519), (519, 49522), (523, 49540), (526, 49552), (555, 49687), (563, 49717),

Gene: Zion_72 Start: 52509, Stop: 50584, Start Num: 59
Candidate Starts for Zion_72:
(33, 52602), (36, 52596), (Start: 59 @52509 has 8 MA's), (108, 52338), (123, 52284), (189, 52080), (229, 51924), (253, 51873), (254, 51870), (274, 51828), (311, 51741), (312, 51738), (322, 51666),

(325, 51657), (391, 51306), (392, 51300), (400, 51267), (491, 50928), (506, 50862), (509, 50850), (513, 50832), (517, 50805), (530, 50742), (536, 50709), (554, 50637),