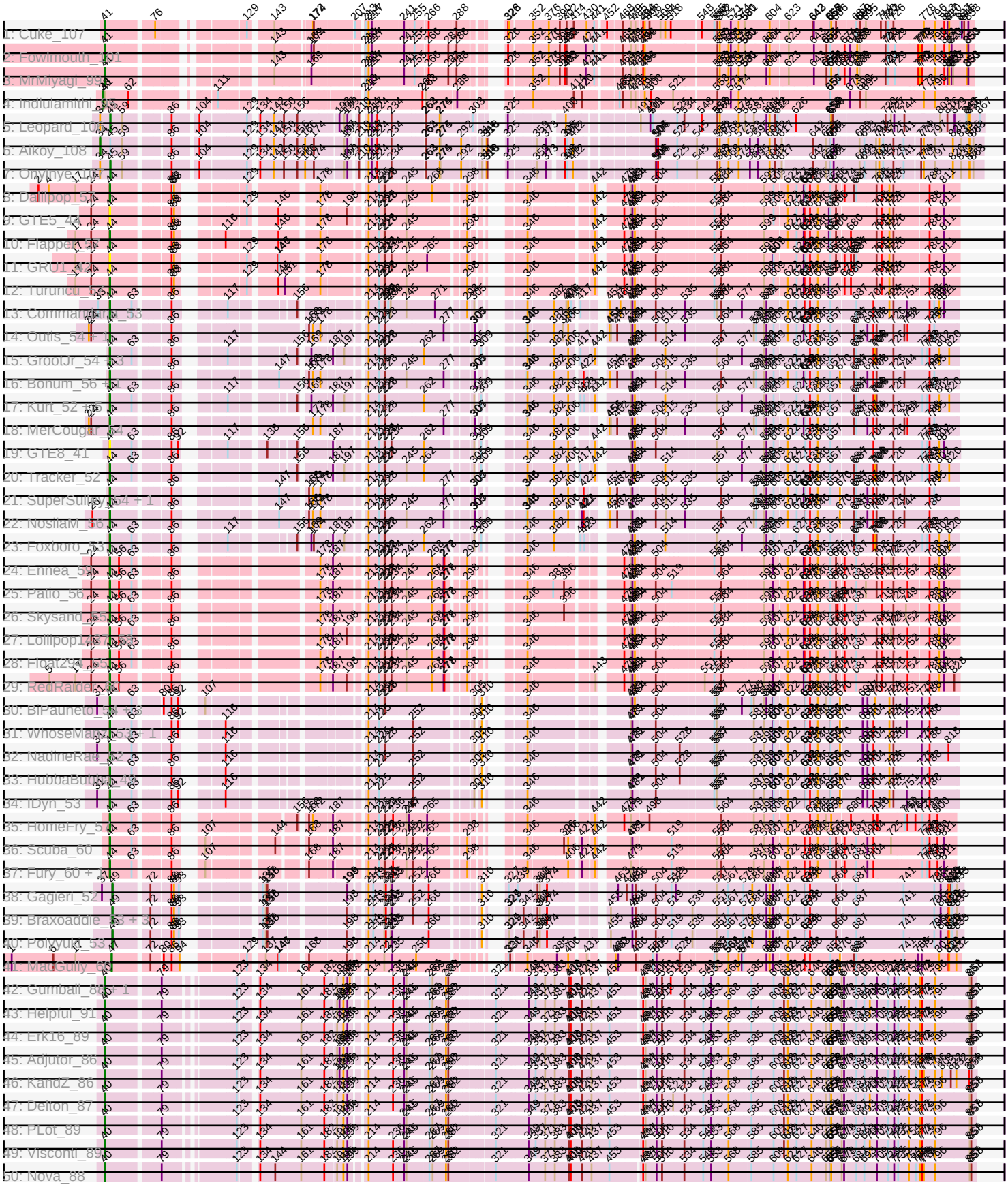
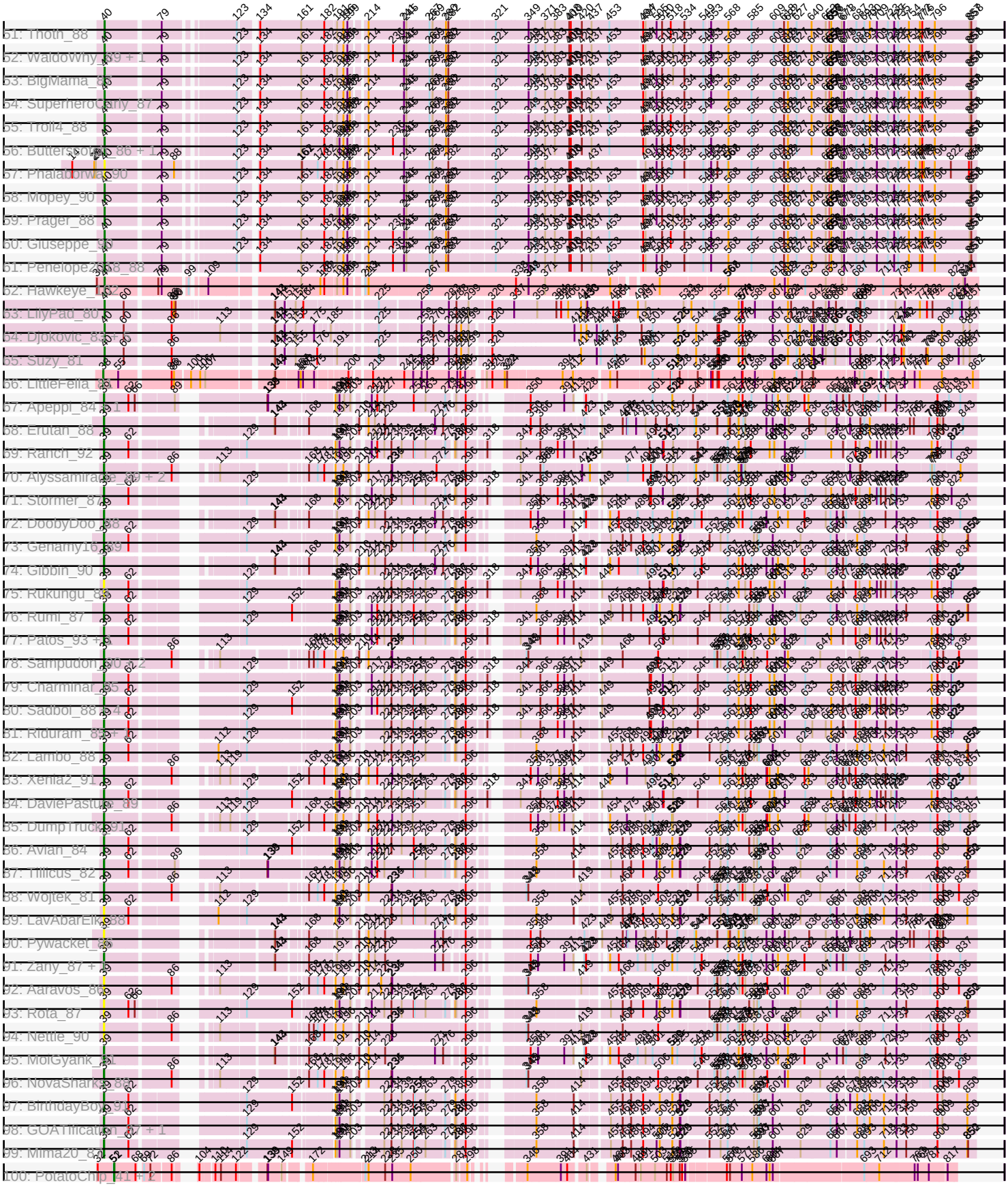
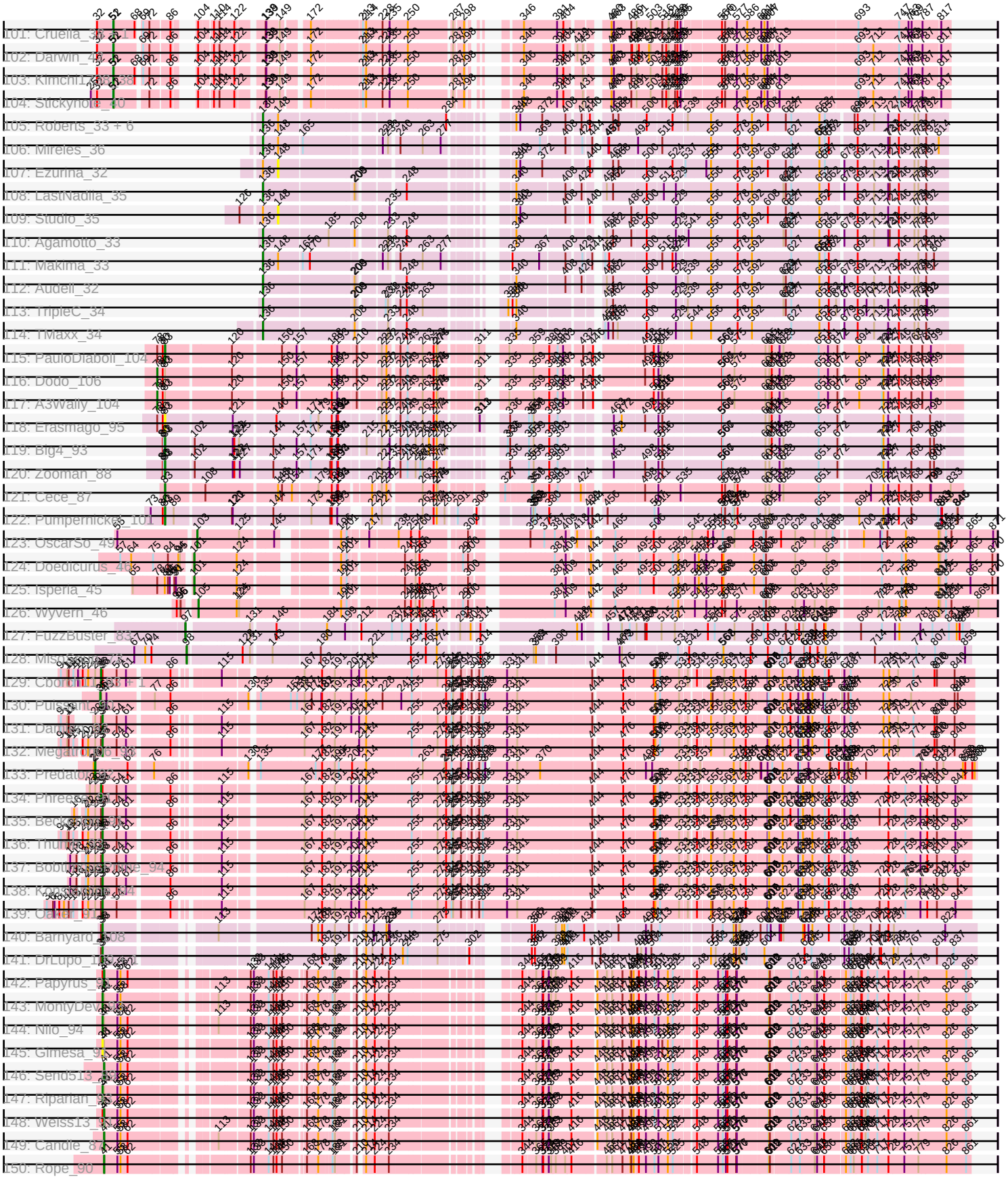
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151: Yelo_88
152: Zenon_93
153: Demikore_
154: Labelle_10
155: Patience_
156: Madruga_
157: SuperSquid_107
158: P1201_5
159: Galila_49
160: Chewy0m_34

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 347261 Report

This analysis was run 11/14/26 on database version 672.

Pham number 347261 has 211 members, 22 are drafts.

Phages represented in each track:
- Track 1 : Cuke_107
- Track 2 : Fowlmouth_101
- Track 3 : MrMiyagi_99
- Track 4 : Indlulamithi_95
- Track 5 : Leopard_106
- Track 6 : Aikoy_108
- Track 7 : Onyinye_107
- Track 8 : Dalilpop_57
- Track 9 : GTE5_44
- Track 10 : Flapper_57
- Track 11 : GRU1_42
- Track 12 : Turuncu_57
- Track 13 : Commandaria_53
- Track 14 : Outis_54, StarStruck_54
- Track 15 : GrootJr_54, NovumRegina_52, Wheezy_52, Arti_52
- Track 16 : Bonum_56, Kabluna_56
- Track 17 : Kurt_52, KidneyBean_52, Jifall16_51, NatB6_52, Emianna_52, Phomeo_51
- Track 18 : MerCougar_54
- Track 19 : GTE8_41
- Track 20 : Tracker_52
- Track 21 : SuperSulley_54, Buggaboo_54
- Track 22 : NosilaM_56
- Track 23 : Foxboro_53
- Track 24 : Ennea_59
- Track 25 : Patio_56
- Track 26 : Skysand_55
- Track 27 : Lollipop1437_58
- Track 28 : Float294_55
- Track 29 : RedRaider_60
- Track 30 : BiPauneto_54, Pemberton_54, Yndexa_53, Sukkupi_53
- Track 31 : WhoseManz_53, Marietta_54
- Track 32 : NadineRae_52
- Track 33 : HubbaBubba_49
- Track 34 : IDyn_53
- Track 35 : HomeFry_57
- Track 36 : Scuba_60

• Track 37 : Fury_60, Pleakley_60
• Track 38 : Gagieri_52
• Track 39 : Braxoaddie_53, Maselop_53, CoffeeBean_53, Apiary_53
• Track 40 : Polyyuki_53
• Track 41 : MacGully_60
• Track 42 : Gumball_88, SirHarley_90
• Track 43 : Helpful_91
• Track 44 : Erk16_89
• Track 45 : Adjutor_86
• Track 46 : KandZ_86
• Track 47 : Delton_87
• Track 48 : PLot_89
• Track 49 : Visconti_89
• Track 50 : Nova_88
• Track 51 : Thoth_88
• Track 52 : WaldoWhy_89, Chill_89
• Track 53 : BigMama_87
• Track 54 : SuperheroCarly_87
• Track 55 : Troll4_88
• Track 56 : Butterscotch_86, PBI1_81
• Track 57 : Phalaborwa_90
• Track 58 : Mopey_90
• Track 59 : Prager_88
• Track 60 : Giuseppe_90
• Track 61 : Penelope2018_88
• Track 62 : Hawkeye_102
• Track 63 : LilyPad_80
• Track 64 : Djokovic_83, Madi_82, Sienna_83, Terapin_84, BiteSize_83, Beyoncage_83
• Track 65 : Suzy_81
• Track 66 : LittleFella_81
• Track 67 : Apeppi_84, LuckyLeo_86
• Track 68 : Erutan_88
• Track 69 : Ranch_92
• Track 70 : Alyssamiracle_89, RazorC_86, Astralis_86
• Track 71 : Stormer_87
• Track 72 : DoobyDoo_88
• Track 73 : Genamy16_89
• Track 74 : Gibbin_90
• Track 75 : Rukungu_89
• Track 76 : Rumi_87
• Track 77 : Patos_93, NorManre_93
• Track 78 : Sampudon_90, Alephilan_90, Jalebi_88
• Track 79 : Charminar_85
• Track 80 : Sadboi_88, ParvusTarda_88, GretelLyn_88, Lila22_89, OtterstedtS21_89
• Track 81 : Riduram_85, Jamemuya19_84
• Track 82 : Lambo_88
• Track 83 : Xenia2_91
• Track 84 : DaviePasture_89
• Track 85 : DumpTruck_91
• Track 86 : Avian_84
• Track 87 : Tillicus_82
• Track 88 : Wojtek_81

• Track 89 : LavAbarElk_88
• Track 90 : Pywacket_86
• Track 91 : Zany_87, Yikes_89
• Track 92 : Aaravos_86
• Track 93 : Rota_87
• Track 94 : Nettle_90
• Track 95 : MoiGyank_91
• Track 96 : NovaSharks_88
• Track 97 : BirthdayBoy_91
• Track 98 : GOATification_87, Fulcrum_87
• Track 99 : Mima20_87
• Track 100 : PotatoChip_41, PeteyPab_40, Zion_41
• Track 101 : Cruella_38, C3PO_38
• Track 102 : Darwin_42
• Track 103 : Kimchi1738_38
• Track 104 : Stickynote_40
• Track 105 : Roberts_33, ChamoyPickle_35, Gerri43_33, CardboardBox_34, AnnabelLee_33, Neuvillette_33, ChipsNGuac_33
• Track 106 : Mireles_36
• Track 107 : Ezurina_32
• Track 108 : LastNadiia_35
• Track 109 : Studio_35
• Track 110 : Agamotto_33
• Track 111 : Makima_33
• Track 112 : Audell_32
• Track 113 : TripleC_34
• Track 114 : TMaxx_34
• Track 115 : PauloDiaboli_104
• Track 116 : Dodo_106
• Track 117 : A3Wally_104
• Track 118 : Erasmago_95
• Track 119 : Big4_93
• Track 120 : Zooman_88
• Track 121 : Cece_87
• Track 122 : Pumpernickel_101
• Track 123 : OscarSo_49
• Track 124 : Doedicurus_46
• Track 125 : Isperia_45
• Track 126 : Wyvern_46
• Track 127 : FuzzBuster_83
• Track 128 : MisoSoup_72
• Track 129 : Cborch11_93, Nish23_93
• Track 130 : Puissant_90
• Track 131 : Damien_92
• Track 132 : Megatron06_93
• Track 133 : Predator_92
• Track 134 : Phreeze_91
• Track 135 : Beckerton_91
• Track 136 : Thumb_93
• Track 137 : BobtimousPrime_94
• Track 138 : Konstantine_94
• Track 139 : Oaker_91
• Track 140 : Barnyard_108

• Track 141 : DrLupo_109, AmandaPanda_109
• Track 142 : Papyrus_91
• Track 143 : MontyDev_93
• Track 144 : Nilo_94
• Track 145 : Gimesa_91
• Track 146 : Send513_89
• Track 147 : Riparian_93
• Track 148 : Weiss13_91
• Track 149 : Candle_87
• Track 150 : Rope_90
• Track 151 : Yelo_88
• Track 152 : Zenon_93
• Track 153 : Demikore_109
• Track 154 : Labelle_108
• Track 155 : Patience_109
• Track 156 : Madruga_106
• Track 157 : SuperSonics_107
• Track 158 : P1201_54
• Track 159 : Gallia_49
• Track 160 : ChewyVIII_64

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

The start number called the most often in the published annotations is 44, it was called in 44 of the 189 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Arti_52, BiPauneto_54, Bonum_56, Buggaboo_54, ChewyVIII_64, Commandaria_53, Dalilpop_57, Emianna_52, Ennea_59, Flapper_57, Float294_55, Foxboro_53, Fury_60, GRU1_42, GTE5_44, GTE8_41, GrootJr_54, HomeFry_57, HubbaBubba_49, IDyn_53, Jifall16_51, Kabluna_56, KidneyBean_52, Kurt_52, Lollipop1437_58, Marietta_54, MerCougar_54, NadineRae_52, NatB6_52, NosilaM_56, NovumRegina_52, Outis_54, Patio_56, Pemberton_54, Phomeo_51, Pleakley_60, RedRaider_60, Scuba_60, Skysand_55, StarStruck_54, Sukkupi_53, SuperSulley_54, Tracker_52, Turuncu_57, Wheezy_52, WhoseManz_53, Yndexa_53,

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

Genes that do not have the "Most Annotated" start:
• A3Wally_104, Aaravos_86, Adjutor_86, Agamotto_33, Aikoy_108, Alephilan_90, Alyssamiracle_89, AmandaPanda_109, AnnabelLee_33, Apeppi_84, Apiary_53, Astralis_86, Audell_32, Avian_84, Barnyard_108, Beckerton_91, Beyoncage_83, Big4_93, BigMama_87, BirthdayBoy_91, BiteSize_83, BobtimousPrime_94, Braxoaddie_53, Butterscotch_86, C3PO_38, Candle_87, CardboardBox_34, Cborch11_93, Cece_87, ChamoyPickle_35, Charminar_85, Chill_89, ChipsNGuac_33, CoffeeBean_53, Cruella_38, Cuke_107, Damien_92, Darwin_42, DaviePasture_89, Delton_87, Demikore_109, Djokovic_83, Dodo_106, Doedicurus_46, DoobyDoo_88, DrLupo_109, DumpTruck_91, Erasmago_95,

Erk16_89, Erutan_88, Ezurina_32, Fowlmouth_101, Fulcrum_87, FuzzBuster_83, GOATification_87, Gagieri_52, Gallia_49, Genamy16_89, Gerri43_33, Gibbin_90, Gimesa_91, Giuseppe_90, GretelLyn_88, Gumball_88, Hawkeye_102, Helpful_91, Indlulamithi_95, Isperia_45, Jalebi_88, Jamemuya19_84, KandZ_86, Kimchi1738_38, Konstantine_94, Labelle_108, Lambo_88, LastNadiia_35, LavAbarElk_88, Leopard_106, Lila22_89, LilyPad_80, LittleFella_81, LuckyLeo_86, MacGully_60, Madi_82, Madruga_106, Makima_33, Maselop_53, Megatron06_93, Mima20_87, Mireles_36, MisoSoup_72, MoiGyank_91, MontyDev_93, Mopey_90, MrMiyagi_99, Nettle_90, Neuvillette_33, Nilo_94, Nish23_93, NorManre_93, NovaSharks_88, Nova_88, Oaker_91, Onyinye_107, OscarSo_49, OtterstedtS21_89, P1201_54, PBI1_81, PLot_89, Papyrus_91, ParvusTarda_88, Patience_109, Patos_93, PauloDiaboli_104, Penelope2018_88, PeteyPab_40, Phalaborwa_90, Phreeze_91, Polyyuki_53, PotatoChip_41, Prager_88, Predator_92, Puissant_90, Pumpernickel_101, Pywacket_86, Ranch_92, RazorC_86, Riduram_85, Riparian_93, Roberts_33, Rope_90, Rota_87, Rukungu_89, Rumi_87, Sadboi_88, Sampudon_90, Send513_89, Sienna_83, SirHarley_90, Stickynote_40, Stormer_87, Studio_35, SuperSonics_107, SuperheroCarly_87, Suzy_81, TMaxx_34, Terapin_84, Thoth_88, Thumb_93, Tillicus_82, TripleC_34, Troll4_88, Visconti_89, WaldoWhy_89, Weiss13_91, Wojtek_81, Wyvern_46, Xenia2_91, Yelo_88, Yikes_89, Zany_87, Zenon_93, Zion_41, Zooman_88,

Summary by start number:

Start 27:
• Found in 2 of 211 (0.9%) of genes in pham
• No Manual Annotations of this start.
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Gallia_49 (singleton), P1201_54 (singleton),

Start 29:
• Found in 12 of 211 (5.7%) of genes in pham
• Manual Annotations of this start: 1 of 189
• Called 8.3% of time when present
• Phage (with cluster) where this start called: Predator_92 (H1),

Start 34:
• Found in 3 of 211 (1.4%) of genes in pham
• Manual Annotations of this start: 1 of 189
• Called 33.3% of time when present
• Phage (with cluster) where this start called: Aikoy_108 (AE),

Start 35:
• Found in 1 of 211 (0.5%) of genes in pham
• Manual Annotations of this start: 1 of 189
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Puissant_90 (H1),

Start 36:
• Found in 14 of 211 (6.6%) of genes in pham
• Manual Annotations of this start: 2 of 189
• Called 21.4% of time when present

• Phage (with cluster) where this start called: Cborch11_93 (H1), Nish23_93 (H1), Phreeze_91 (H1),

Start 38:
• Found in 22 of 211 (10.4%) of genes in pham
• Manual Annotations of this start: 15 of 189
• Called 77.3% of time when present
• Phage (with cluster) where this start called: AmandaPanda_109 (H2), Barnyard_108 (H2), Beckerton_91 (H1), BobtimousPrime_94 (H1), Damien_92 (H1), DrLupo_109 (H2), Gimesa_91 (R), Indlulamithi_95 (AC), Konstantine_94 (H1), LittleFella_81 (DG2), Megatron06_93 (H1), MontyDev_93 (R), Nilo_94 (R), Oaker_91 (H1), Riparian_93 (R), Thumb_93 (H1), Zenon_93 (R),

Start 39:
• Found in 46 of 211 (21.8%) of genes in pham
• Manual Annotations of this start: 40 of 189
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Aaravos_86 (DV), Alephilan_90 (DV), Alyssamiracle_89 (DV), Apeppi_84 (DV), Astralis_86 (DV), Avian_84 (DV), BirthdayBoy_91 (DV), Charminar_85 (DV), DaviePasture_89 (DV), DoobyDoo_88 (DV), DumpTruck_91 (DV), Erutan_88 (DV), Fulcrum_87 (DV), GOATification_87 (DV), Genamy16_89 (DV), Gibbin_90 (DV), GretelLyn_88 (DV), Jalebi_88 (DV), Jamemuya19_84 (DV), Lambo_88 (DV), LavAbarElk_88 (DV), Lila22_89 (DV), LuckyLeo_86 (DV), Mima20_87 (DV), MoiGyank_91 (DV), Nettle_90 (DV), NorManre_93 (DV), NovaSharks_88 (DV), OtterstedtS21_89 (DV), ParvusTarda_88 (DV), Patos_93 (DV), Pywacket_86 (DV), Ranch_92 (DV), RazorC_86 (DV), Riduram_85 (DV), Rota_87 (DV), Rukungu_89 (DV), Rumi_87 (DV), Sadboi_88 (DV), Sampudon_90 (DV), Stormer_87 (DV), Tillicus_82 (DV), Wojtek_81 (DV), Xenia2_91 (DV), Yikes_89 (DV), Zany_87 (DV),

Start 40:
• Found in 32 of 211 (15.2%) of genes in pham
• Manual Annotations of this start: 31 of 189
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Adjutor_86 (D1), Beyoncage_83 (DG1), BigMama_87 (D1), BiteSize_83 (DG1), Butterscotch_86 (D1), Chill_89 (D1), Delton_87 (D1), Djokovic_83 (DG1), Erk16_89 (D1), Giuseppe_90 (D1), Gumball_88 (D1), Hawkeye_102 (D2), Helpful_91 (D1), KandZ_86 (D1), LilyPad_80 (DG1), Madi_82 (DG1), Mopey_90 (D1), Nova_88 (D1), PBI1_81 (D1), PLot_89 (D1), Penelope2018_88 (D1), Phalaborwa_90 (D1), Prager_88 (D1), Sienna_83 (DG1), SirHarley_90 (D1), SuperheroCarly_87 (D1), Suzy_81 (DG1), Terapin_84 (DG1), Thoth_88 (D1), Troll4_88 (D1), Visconti_89 (D1), WaldoWhy_89 (D1),

Start 41:
• Found in 15 of 211 (7.1%) of genes in pham
• Manual Annotations of this start: 9 of 189
• Called 60.0% of time when present
• Phage (with cluster) where this start called: Candle_87 (R), Cuke_107 (AC), Fowlmouth_101 (AC), MrMiyagi_99 (AC), Papyrus_91 (R), Rope_90 (R), Send513_89 (R), Weiss13_91 (R), Yelo_88 (R),

Start 42:
• Found in 5 of 211 (2.4%) of genes in pham

• Manual Annotations of this start: 4 of 189
• Called 80.0% of time when present
• Phage (with cluster) where this start called: Labelle_108 (U), Madruga_106 (U), Patience_109 (U), SuperSonics_107 (U),

Start 44:
• Found in 47 of 211 (22.3%) of genes in pham
• Manual Annotations of this start: 44 of 189
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Arti_52 (CR2), BiPauneto_54 (CR4), Bonum_56 (CR2), Buggaboo_54 (CR2), ChewyVIII_64 (singleton), Commandaria_53 (CR2), Dalilpop_57 (CR1), Emianna_52 (CR2), Ennea_59 (CR3), Flapper_57 (CR1), Float294_55 (CR3), Foxboro_53 (CR2), Fury_60 (CR5), GRU1_42 (CR1), GTE5_44 (CR1), GTE8_41 (CR2), GrootJr_54 (CR2), HomeFry_57 (CR5), HubbaBubba_49 (CR4), IDyn_53 (CR4), Jifall16_51 (CR2), Kabluna_56 (CR2), KidneyBean_52 (CR2), Kurt_52 (CR2), Lollipop1437_58 (CR3), Marietta_54 (CR4), MerCougar_54 (CR2), NadineRae_52 (CR4), NatB6_52 (CR2), NosilaM_56 (CR2), NovumRegina_52 (CR2), Outis_54 (CR2), Patio_56 (CR3), Pemberton_54 (CR4), Phomeo_51 (CR2), Pleakley_60 (CR5), RedRaider_60 (CR3), Scuba_60 (CR5), Skysand_55 (CR3), StarStruck_54 (CR2), Sukkupi_53 (CR4), SuperSulley_54 (CR2), Tracker_52 (CR2), Turuncu_57 (CR1), Wheezy_52 (CR2), WhoseManz_53 (CR4), Yndexa_53 (CR4),

Start 45:
• Found in 3 of 211 (1.4%) of genes in pham
• Manual Annotations of this start: 2 of 189
• Called 66.7% of time when present
• Phage (with cluster) where this start called: Leopard_106 (AE), Onyinye_107 (AE),

Start 47:
• Found in 1 of 211 (0.5%) of genes in pham
• Manual Annotations of this start: 1 of 189
• Called 100.0% of time when present
• Phage (with cluster) where this start called: MacGully_60 (CR7),

Start 48:
• Found in 5 of 211 (2.4%) of genes in pham
• No Manual Annotations of this start.
• Called 20.0% of time when present
• Phage (with cluster) where this start called: Demikore_109 (U),

Start 49:
• Found in 6 of 211 (2.8%) of genes in pham
• Manual Annotations of this start: 6 of 189
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Apiary_53 (CR6), Braxoaddie_53 (CR6), CoffeeBean_53 (CR6), Gagieri_52 (CR6), Maselop_53 (CR6), Polyyuki_53 (CR6),

Start 52:
• Found in 8 of 211 (3.8%) of genes in pham
• Manual Annotations of this start: 8 of 189
• Called 100.0% of time when present
• Phage (with cluster) where this start called: C3PO_38 (EN), Cruella_38 (EN), Darwin_42 (EN), Kimchi1738_38 (EN), PeteyPab_40 (EN), PotatoChip_41 (EN),

Stickynote_40 (EN), Zion_41 (EN),

Start 78:
• Found in 6 of 211 (2.8%) of genes in pham
• Manual Annotations of this start: 2 of 189
• Called 33.3% of time when present
• Phage (with cluster) where this start called: A3Wally_104 (GD1), Dodo_106 (GD1),

Start 83:
• Found in 8 of 211 (3.8%) of genes in pham
• Manual Annotations of this start: 5 of 189
• Called 75.0% of time when present
• Phage (with cluster) where this start called: Big4_93 (GD2), Cece_87 (GD3), Erasmago_95 (GD2), PauloDiaboli_104 (GD1), Pumpernickel_101 (GD4), Zooman_88 (GD2),

Start 97:
• Found in 1 of 211 (0.5%) of genes in pham
• Manual Annotations of this start: 1 of 189
• Called 100.0% of time when present
• Phage (with cluster) where this start called: FuzzBuster_83 (GM),

Start 98:
• Found in 1 of 211 (0.5%) of genes in pham
• Manual Annotations of this start: 1 of 189
• Called 100.0% of time when present
• Phage (with cluster) where this start called: MisoSoup_72 (GM),

Start 101:
• Found in 2 of 211 (0.9%) of genes in pham
• Manual Annotations of this start: 2 of 189
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Doedicurus_46 (GJ), Isperia_45 (GJ),

Start 103:
• Found in 1 of 211 (0.5%) of genes in pham
• Manual Annotations of this start: 1 of 189
• Called 100.0% of time when present
• Phage (with cluster) where this start called: OscarSo_49 (GJ),

Start 105:
• Found in 1 of 211 (0.5%) of genes in pham
• Manual Annotations of this start: 1 of 189
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Wyvern_46 (GJ),

Start 136:
• Found in 16 of 211 (7.6%) of genes in pham
• Manual Annotations of this start: 11 of 189
• Called 87.5% of time when present
• Phage (with cluster) where this start called: Agamotto_33 (FR), AnnabelLee_33 (FR), Audell_32 (FR), CardboardBox_34 (FR), ChamoyPickle_35 (FR), ChipsNGuac_33 (FR), Gerri43_33 (FR), LastNadiia_35 (FR), Makima_33 (FR),

Mireles_36 (FR), Neuvillette_33 (FR), Roberts_33 (FR), TMaxx_34 (FR), TripleC_34 (FR),

Start 148:
• Found in 12 of 211 (5.7%) of genes in pham
• No Manual Annotations of this start.
• Called 16.7% of time when present
• Phage (with cluster) where this start called: Ezurina_32 (FR), Studio_35 (FR),

Summary by clusters:

There are 27 clusters represented in this pham: GD1, FR, GD3, GD4, GD2, DV, GM, AC, EN, AE, DG2, R, U, singleton, GJ, CR2, CR3, CR1, CR6, CR7, CR4, CR5, H2, H1, DG1, D2, D1,

Info for manual annotations of cluster AC:
•Start number 38 was manually annotated 1 time for cluster AC.
•Start number 41 was manually annotated 3 times for cluster AC.

Info for manual annotations of cluster AE:
•Start number 34 was manually annotated 1 time for cluster AE.
•Start number 45 was manually annotated 2 times for cluster AE.

Info for manual annotations of cluster CR1:
•Start number 44 was manually annotated 3 times for cluster CR1.

Info for manual annotations of cluster CR2:
•Start number 44 was manually annotated 21 times for cluster CR2.

Info for manual annotations of cluster CR3:
•Start number 44 was manually annotated 6 times for cluster CR3.

Info for manual annotations of cluster CR4:
•Start number 44 was manually annotated 9 times for cluster CR4.

Info for manual annotations of cluster CR5:
•Start number 44 was manually annotated 4 times for cluster CR5.

Info for manual annotations of cluster CR6:
•Start number 49 was manually annotated 6 times for cluster CR6.

Info for manual annotations of cluster CR7:
•Start number 47 was manually annotated 1 time for cluster CR7.

Info for manual annotations of cluster D1:
•Start number 40 was manually annotated 22 times for cluster D1.

Info for manual annotations of cluster D2:
•Start number 40 was manually annotated 1 time for cluster D2.

Info for manual annotations of cluster DG1:
•Start number 40 was manually annotated 8 times for cluster DG1.

Info for manual annotations of cluster DG2:
•Start number 38 was manually annotated 1 time for cluster DG2.

Info for manual annotations of cluster DV:
•Start number 39 was manually annotated 40 times for cluster DV.

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

Info for manual annotations of cluster FR:
•Start number 136 was manually annotated 11 times for cluster FR.

Info for manual annotations of cluster GD1:
•Start number 78 was manually annotated 2 times for cluster GD1.
•Start number 83 was manually annotated 1 time for cluster GD1.

Info for manual annotations of cluster GD2:
•Start number 83 was manually annotated 2 times for cluster GD2.

Info for manual annotations of cluster GD3:
•Start number 83 was manually annotated 1 time for cluster GD3.

Info for manual annotations of cluster GD4:
•Start number 83 was manually annotated 1 time for cluster GD4.

Info for manual annotations of cluster GJ:
•Start number 101 was manually annotated 2 times for cluster GJ.
•Start number 103 was manually annotated 1 time for cluster GJ.
•Start number 105 was manually annotated 1 time for cluster GJ.

Info for manual annotations of cluster GM:
•Start number 97 was manually annotated 1 time for cluster GM.
•Start number 98 was manually annotated 1 time for cluster GM.

Info for manual annotations of cluster H1:
•Start number 29 was manually annotated 1 time for cluster H1.
•Start number 35 was manually annotated 1 time for cluster H1.
•Start number 36 was manually annotated 2 times for cluster H1.
•Start number 38 was manually annotated 7 times for cluster H1.

Info for manual annotations of cluster H2:
•Start number 38 was manually annotated 2 times for cluster H2.

Info for manual annotations of cluster R:
•Start number 38 was manually annotated 4 times for cluster R.
•Start number 41 was manually annotated 6 times for cluster R.

Info for manual annotations of cluster U:
•Start number 42 was manually annotated 4 times for cluster U.

Gene Information:

Gene: A3Wally_104 Start: 71211, Stop: 68536, Start Num: 78
Candidate Starts for A3Wally_104:
(Start: 78 @71211 has 2 MA's), (80, 71190), (Start: 83 @71181 has 5 MA's), (120, 70944), (150, 70776), (157, 70725), (188, 70608), (193, 70587), (210, 70521), (227, 70449), (232, 70431), (240, 70398), (249, 70371), (263, 70317), (272, 70275), (274, 70263), (275, 70260), (311, 70149), (335, 70101), (359, 70020), (380, 69960), (393, 69930), (403, 69909), (432, 69849), (446, 69822), (506, 69636), (511, 69627), (515, 69615), (516, 69612), (566, 69408), (567, 69405), (575, 69360), (605, 69243), (611, 69228), (614, 69219), (619, 69192), (623, 69177), (651, 69051), (661, 69015), (672, 68979), (694, 68916), (723, 68829), (724, 68823), (727, 68805), (746, 68766), (768, 68718), (786, 68676), (799, 68643),

Gene: Aaravos_86 Start: 59907, Stop: 62630, Start Num: 39
Candidate Starts for Aaravos_86:
(Start: 39 @59907 has 40 MA's), (86, 60135), (113, 60207), (168, 60462), (177, 60495), (182, 60519), (190, 60540), (196, 60567), (210, 60606), (214, 60618), (226, 60663), (234, 60702), (235, 60705), (296, 60960), (345, 61095), (348, 61101), (419, 61281), (468, 61410), (506, 61530), (546, 61665), (555, 61719), (557, 61728), (558, 61731), (563, 61743), (567, 61770), (573, 61809), (575, 61815), (578, 61827), (581, 61836), (587, 61863), (602, 61905), (619, 61962), (622, 61974), (647, 62091), (689, 62220), (717, 62307), (733, 62358), (789, 62469), (800, 62496), (810, 62517), (836, 62568),

Gene: Adjutor_86 Start: 61133, Stop: 64084, Start Num: 40
Candidate Starts for Adjutor_86:
(Start: 40 @61133 has 31 MA's), (79, 61316), (123, 61526), (134, 61571), (161, 61724), (182, 61811), (191, 61844), (193, 61850), (196, 61865), (199, 61880), (214, 61928), (236, 62021), (241, 62057), (245, 62066), (267, 62141), (269, 62153), (280, 62204), (282, 62213), (321, 62357), (349, 62480), (357, 62504), (371, 62540), (383, 62576), (408, 62630), (410, 62636), (420, 62678), (437, 62714), (453, 62780), (494, 62906), (497, 62915), (505, 62957), (510, 62975), (534, 63053), (549, 63116), (553, 63137), (568, 63203), (585, 63284), (609, 63359), (618, 63389), (622, 63404), (627, 63434), (640, 63488), (653, 63542), (656, 63557), (657, 63560), (658, 63563), (671, 63602), (673, 63611), (687, 63641), (693, 63671), (709, 63716), (723, 63758), (727, 63782), (735, 63797), (754, 63836), (772, 63878), (776, 63887), (796, 63935), (857, 64061), (858, 64067),

Gene: Agamotto_33 Start: 24496, Stop: 22310, Start Num: 136
Candidate Starts for Agamotto_33:
(Start: 136 @24496 has 11 MA's), (185, 24271), (208, 24181), (233, 24088), (248, 24037), (340, 23770), (455, 23509), (462, 23485), (486, 23416), (500, 23365), (529, 23266), (541, 23227), (556, 23155), (578, 23053), (592, 23005), (623, 22894), (624, 22885), (627, 22867), (652, 22765), (662, 22729), (679, 22690), (692, 22639), (713, 22585), (727, 22531), (732, 22525), (746, 22492), (773, 22432), (779, 22417), (792, 22387),

Gene: Aikoy_108 Start: 68446, Stop: 71229, Start Num: 34
Candidate Starts for Aikoy_108:
(Start: 34 @68446 has 1 MA's), (Start: 45 @68485 has 2 MA's), (59, 68530), (86, 68677), (104, 68761), (129, 68917), (134, 68938), (142, 68989), (150, 69028), (156, 69079), (166, 69109), (174, 69142), (197, 69229), (199, 69238), (210, 69265), (214, 69277), (217, 69289), (224, 69310), (234, 69364), (263, 69472), (264, 69475), (274, 69526), (275, 69529), (292, 69598), (311, 69643), (316, 69652), (318, 69655), (325, 69664), (359, 69754), (373, 69784), (398, 69829), (405, 69838), (412, 69859), (504, 70096), (505, 70099), (506, 70105), (525, 70168), (545, 70228), (558, 70297), (562, 70306), (568, 70339), (574, 70378), (583, 70414), (595, 70438), (604, 70477), (612, 70498), (617, 70522), (642, 70624), (653, 70672), (656, 70687), (657, 70690), (661, 70702), (689, 70786), (693, 70804), (707, 70843), (712, 70852), (717, 70867), (726, 70906), (741, 70945), (774, 70999), (778, 71008), (797, 71050), (826, 71116), (839, 71146), (856, 71179), (863, 71194),

Gene: Alephilan_90 Start: 60569, Stop: 63292, Start Num: 39
Candidate Starts for Alephilan_90:
(Start: 39 @60569 has 40 MA's), (86, 60797), (113, 60869), (168, 61124), (174, 61142), (177, 61157), (182, 61181), (190, 61202), (196, 61229), (210, 61268), (214, 61280), (234, 61364), (235, 61367), (296, 61622), (345, 61757), (348, 61763), (419, 61943), (468, 62072), (506, 62192), (555, 62381), (557, 62390), (558, 62393), (563, 62405), (567, 62432), (573, 62471), (575, 62477), (578, 62489), (581, 62498), (587, 62525), (602, 62567), (619, 62624), (622, 62636), (647, 62753), (689, 62882), (717, 62969), (733, 63020), (789, 63131), (800, 63158), (810, 63179), (836, 63230),

Gene: Alyssamiracle_89 Start: 58582, Stop: 61320, Start Num: 39
Candidate Starts for Alyssamiracle_89:
(Start: 39 @58582 has 40 MA's), (86, 58810), (113, 58882), (168, 59137), (177, 59170), (182, 59194), (190, 59215), (196, 59242), (210, 59281), (214, 59293), (234, 59377), (235, 59380), (272, 59539), (296, 59635), (341, 59752), (366, 59821), (369, 59833), (421, 59962), (435, 59989), (436, 59992), (477, 60115), (494, 60163), (500, 60193), (501, 60199), (516, 60250), (521, 60274), (543, 60343), (544, 60349), (555, 60409), (557, 60418), (558, 60421), (563, 60433), (567, 60460), (573, 60499), (574, 60502), (576, 60511), (577, 60514), (579, 60520), (581, 60526), (619, 60658), (622, 60670), (625, 60685), (679, 60880), (689, 60916), (690, 60919), (733, 61054), (789, 61165), (791, 61171), (795, 61180), (838, 61270),

Gene: AmandaPanda_109 Start: 66667, Stop: 69420, Start Num: 38
Candidate Starts for AmandaPanda_109:
(Start: 36 @66661 has 2 MA's), (Start: 38 @66667 has 15 MA's), (182, 67324), (191, 67351), (210, 67414), (214, 67426), (221, 67450), (228, 67489), (236, 67519), (244, 67561), (249, 67579), (275, 67678), (302, 67765), (356, 67900), (362, 67912), (389, 67987), (400, 68011), (406, 68020), (411, 68032), (444, 68119), (450, 68134), (492, 68248), (497, 68263), (499, 68281), (504, 68302), (556, 68482), (563, 68500), (574, 68569), (576, 68578), (580, 68590), (581, 68593), (585, 68611), (604, 68668), (638, 68815), (645, 68842), (679, 68947), (685, 68965), (687, 68971), (689, 68983), (708, 69043), (720, 69076), (722, 69082), (736, 69127), (743, 69142), (767, 69187), (810, 69280), (837, 69334),

Gene: AnnabelLee_33 Start: 21714, Stop: 19510, Start Num: 136
Candidate Starts for AnnabelLee_33:
(Start: 136 @21714 has 11 MA's), (148, 21660), (284, 21111), (340, 20982), (343, 20967), (372, 20883), (408, 20799), (426, 20754), (440, 20736), (462, 20685), (468, 20664), (500, 20565), (524, 20475), (539, 20430), (556, 20355), (578, 20253), (592, 20205), (608, 20151), (624, 20085), (627, 20067), (652, 19965), (657, 19944), (690, 19851), (692, 19839), (713, 19785), (727, 19731), (746, 19692), (773, 19632), (779, 19617), (792, 19587),

Gene: Apeppi_84 Start: 59800, Stop: 62529, Start Num: 39
Candidate Starts for Apeppi_84:
(Start: 39 @59800 has 40 MA's), (62, 59890), (66, 59914), (89, 60037), (138, 60286), (139, 60289), (190, 60496), (191, 60502), (193, 60508), (197, 60526), (203, 60547), (217, 60586), (224, 60607), (227, 60634), (254, 60736), (263, 60769), (279, 60835), (287, 60859), (296, 60886), (350, 61015), (397, 61135), (413, 61168), (428, 61177), (501, 61366), (519, 61435), (520, 61438), (540, 61513), (567, 61636), (574, 61678), (578, 61693), (585, 61720), (601, 61768), (607, 61792), (609, 61795), (616, 61810), (622, 61840), (623, 61843), (632, 61903), (634, 61915), (657, 61999), (667, 62023), (672, 62047), (675, 62059), (678, 62068), (692, 62122), (693, 62125), (711, 62176), (720, 62203), (733, 62245), (800, 62395), (819, 62431), (837, 62473),

Gene: Apiary_53 Start: 40112, Stop: 37512, Start Num: 49
Candidate Starts for Apiary_53:

(Start: 49 @40112 has 6 MA's), (72, 39995), (86, 39932), (88, 39923), (93, 39905), (135, 39719), (137, 39707), (138, 39701), (198, 39458), (214, 39413), (219, 39395), (227, 39353), (230, 39347), (233, 39329), (235, 39323), (252, 39251), (266, 39191), (310, 39044), (327, 39029), (329, 39026), (342, 38987), (360, 38945), (365, 38936), (374, 38912), (455, 38747), (481, 38672), (486, 38660), (504, 38591), (519, 38540), (539, 38474), (557, 38399), (567, 38357), (579, 38297), (586, 38270), (601, 38216), (604, 38204), (607, 38192), (622, 38144), (632, 38084), (633, 38081), (638, 38066), (666, 37967), (687, 37907), (741, 37739), (795, 37622), (805, 37598), (818, 37568), (820, 37565), (825, 37553), (833, 37535),

Gene: Arti_52 Start: 42132, Stop: 39583, Start Num: 44
Candidate Starts for Arti_52:
(Start: 44 @42132 has 44 MA's), (63, 42060), (86, 41952), (117, 41826), (156, 41628), (169, 41601), (187, 41538), (197, 41505), (214, 41451), (225, 41412), (227, 41391), (228, 41388), (262, 41247), (305, 41097), (309, 41085), (346, 41016), (382, 40926), (406, 40878), (417, 40851), (442, 40809), (479, 40719), (481, 40713), (484, 40704), (514, 40596), (557, 40434), (577, 40338), (599, 40260), (601, 40251), (609, 40224), (627, 40149), (638, 40101), (646, 40071), (657, 40023), (684, 39951), (687, 39942), (704, 39882), (706, 39876), (708, 39870), (726, 39807), (777, 39714), (783, 39696), (788, 39687), (802, 39651), (820, 39618),

Gene: Astralis_86 Start: 58138, Stop: 60876, Start Num: 39
Candidate Starts for Astralis_86:
(Start: 39 @58138 has 40 MA's), (86, 58366), (113, 58438), (168, 58693), (177, 58726), (182, 58750), (190, 58771), (196, 58798), (210, 58837), (214, 58849), (234, 58933), (235, 58936), (272, 59095), (296, 59191), (341, 59308), (366, 59377), (369, 59389), (421, 59518), (435, 59545), (436, 59548), (477, 59671), (494, 59719), (500, 59749), (501, 59755), (516, 59806), (521, 59830), (543, 59899), (544, 59905), (555, 59965), (557, 59974), (558, 59977), (563, 59989), (567, 60016), (573, 60055), (574, 60058), (576, 60067), (577, 60070), (579, 60076), (581, 60082), (619, 60214), (622, 60226), (625, 60241), (679, 60436), (689, 60472), (690, 60475), (733, 60610), (789, 60721), (791, 60727), (795, 60736), (838, 60826),

Gene: Audell_32 Start: 24128, Stop: 21942, Start Num: 136
Candidate Starts for Audell_32:
(Start: 136 @24128 has 11 MA's), (208, 23813), (209, 23810), (248, 23669), (340, 23402), (408, 23231), (426, 23186), (455, 23141), (462, 23117), (500, 22997), (529, 22898), (539, 22862), (556, 22787), (578, 22685), (592, 22637), (623, 22526), (624, 22517), (627, 22499), (652, 22397), (662, 22361), (679, 22322), (692, 22271), (713, 22217), (732, 22157), (746, 22124), (773, 22064), (779, 22049), (792, 22019),

Gene: Avian_84 Start: 58264, Stop: 60969, Start Num: 39
Candidate Starts for Avian_84:
(Start: 39 @58264 has 40 MA's), (62, 58354), (129, 58672), (152, 58837), (190, 58960), (191, 58966), (193, 58972), (203, 59011), (217, 59050), (224, 59071), (227, 59098), (234, 59125), (239, 59158), (254, 59200), (263, 59233), (279, 59299), (286, 59320), (287, 59323), (296, 59350), (358, 59497), (414, 59629), (455, 59704), (468, 59749), (480, 59773), (494, 59812), (501, 59848), (505, 59863), (508, 59875), (520, 59920), (528, 59947), (529, 59950), (552, 60043), (563, 60085), (567, 60112), (582, 60187), (587, 60205), (593, 60214), (597, 60217), (607, 60268), (627, 60346), (629, 60361), (657, 60472), (667, 60493), (688, 60553), (693, 60580), (733, 60700), (750, 60733), (800, 60841), (809, 60853), (850, 60937), (852, 60940),

Gene: Barnyard_108 Start: 67484, Stop: 70234, Start Num: 38
Candidate Starts for Barnyard_108:
(Start: 36 @67478 has 2 MA's), (Start: 38 @67484 has 15 MA's), (113, 67802), (174, 68093), (178, 68117), (182, 68132), (191, 68159), (204, 68210), (214, 68234), (223, 68264), (232, 68312), (234,

68321), (235, 68324), (275, 68486), (356, 68708), (362, 68720), (389, 68795), (400, 68819), (406, 68828), (411, 68840), (434, 68897), (468, 68999), (499, 69089), (504, 69110), (513, 69140), (558, 69296), (567, 69335), (573, 69374), (574, 69377), (576, 69386), (580, 69398), (581, 69401), (600, 69461), (607, 69488), (609, 69491), (613, 69500), (619, 69530), (620, 69536), (623, 69545), (634, 69614), (638, 69620), (643, 69635), (646, 69650), (662, 69713), (679, 69752), (689, 69788), (708, 69848), (720, 69881), (728, 69914), (737, 69932), (823, 70115),

Gene: Beckerton_91 Start: 65152, Stop: 68088, Start Num: 38
Candidate Starts for Beckerton_91:
(16, 65068), (21, 65092), (22, 65098), (Start: 29 @65125 has 1 MA's), (Start: 36 @65146 has 2 MA's), (Start: 38 @65152 has 15 MA's), (54, 65206), (61, 65242), (86, 65377), (115, 65515), (167, 65776), (182, 65842), (191, 65872), (211, 65962), (214, 65989), (255, 66154), (275, 66241), (284, 66274), (285, 66295), (287, 66301), (294, 66328), (306, 66358), (312, 66376), (315, 66382), (331, 66472), (341, 66511), (444, 66781), (476, 66880), (506, 66985), (508, 66991), (513, 67006), (533, 67075), (539, 67099), (548, 67120), (556, 67165), (569, 67216), (574, 67252), (584, 67291), (607, 67363), (609, 67366), (610, 67369), (622, 67411), (626, 67441), (631, 67471), (633, 67477), (634, 67486), (646, 67522), (657, 67570), (662, 67585), (679, 67630), (687, 67654), (720, 67756), (728, 67789), (759, 67852), (781, 67903), (794, 67927), (810, 67963), (841, 68029),

Gene: Beyoncage_83 Start: 56924, Stop: 59785, Start Num: 40
Candidate Starts for Beyoncage_83:
(Start: 40 @56924 has 31 MA's), (60, 56996), (86, 57143), (113, 57320), (143, 57479), (144, 57482), (151, 57518), (155, 57551), (175, 57614), (185, 57650), (225, 57773), (259, 57896), (270, 57932), (283, 57989), (288, 58016), (292, 58034), (299, 58061), (320, 58115), (415, 58409), (418, 58427), (430, 58448), (445, 58487), (447, 58502), (459, 58556), (462, 58565), (492, 58643), (501, 58685), (525, 58772), (526, 58775), (544, 58829), (558, 58901), (560, 58907), (574, 58982), (578, 58997), (607, 59093), (622, 59144), (627, 59174), (628, 59186), (640, 59228), (643, 59237), (649, 59270), (653, 59282), (663, 59315), (665, 59318), (679, 59360), (680, 59363), (690, 59399), (727, 59486), (740, 59510), (742, 59519), (808, 59651), (845, 59732), (857, 59756),

Gene: BiPauneto_54 Start: 41664, Stop: 39112, Start Num: 44
Candidate Starts for BiPauneto_54:
(31, 41709), (Start: 44 @41664 has 44 MA's), (63, 41586), (80, 41505), (86, 41475), (92, 41451), (107, 41424), (214, 40977), (225, 40938), (227, 40917), (228, 40914), (305, 40623), (310, 40608), (346, 40542), (479, 40245), (481, 40239), (484, 40230), (504, 40158), (555, 39969), (557, 39960), (577, 39864), (585, 39834), (587, 39825), (599, 39786), (601, 39777), (607, 39753), (609, 39750), (622, 39705), (632, 39645), (633, 39642), (638, 39627), (646, 39597), (653, 39567), (657, 39549), (670, 39513), (691, 39444), (697, 39429), (706, 39402), (724, 39348), (726, 39333), (751, 39294), (775, 39243), (788, 39213),

Gene: Big4_93 Start: 70347, Stop: 67702, Start Num: 83
Candidate Starts for Big4_93:
(80, 70353), (81, 70350), (Start: 83 @70347 has 5 MA's), (102, 70248), (121, 70104), (122, 70098), (125, 70080), (144, 69969), (157, 69888), (171, 69846), (186, 69777), (188, 69771), (193, 69750), (194, 69747), (215, 69660), (227, 69615), (235, 69585), (240, 69564), (249, 69537), (257, 69510), (263, 69483), (268, 69459), (272, 69441), (274, 69429), (281, 69399), (333, 69279), (336, 69270), (351, 69204), (359, 69186), (380, 69126), (393, 69096), (463, 68946), (511, 68793), (516, 68778), (566, 68574), (567, 68571), (605, 68409), (611, 68394), (614, 68385), (619, 68358), (623, 68343), (651, 68217), (672, 68145), (723, 67995), (724, 67989), (727, 67971), (768, 67884), (798, 67812), (804, 67797),

Gene: BigMama_87 Start: 61224, Stop: 64166, Start Num: 40
Candidate Starts for BigMama_87:

(Start: 40 @61224 has 31 MA's), (79, 61407), (123, 61617), (134, 61662), (161, 61815), (182, 61902), (191, 61935), (196, 61956), (199, 61971), (214, 62019), (241, 62148), (245, 62157), (267, 62232), (269, 62244), (280, 62295), (282, 62304), (321, 62448), (349, 62571), (357, 62595), (371, 62631), (383, 62667), (408, 62721), (410, 62727), (420, 62769), (437, 62805), (453, 62871), (494, 62988), (497, 62997), (505, 63039), (510, 63057), (521, 63096), (534, 63135), (549, 63198), (553, 63219), (568, 63285), (585, 63366), (609, 63441), (618, 63471), (622, 63486), (627, 63516), (640, 63570), (653, 63624), (656, 63639), (657, 63642), (658, 63645), (671, 63684), (673, 63693), (687, 63723), (693, 63753), (709, 63798), (723, 63840), (727, 63864), (735, 63879), (754, 63918), (772, 63960), (776, 63969), (796, 64017), (857, 64143), (858, 64149),

Gene: BirthdayBoy_91 Start: 60564, Stop: 63269, Start Num: 39
Candidate Starts for BirthdayBoy_91:
(Start: 39 @60564 has 40 MA's), (62, 60654), (129, 60972), (152, 61137), (190, 61260), (191, 61266), (193, 61272), (203, 61311), (227, 61398), (234, 61425), (239, 61458), (254, 61500), (255, 61503), (263, 61533), (279, 61599), (286, 61620), (296, 61650), (358, 61797), (414, 61929), (455, 62004), (468, 62049), (480, 62073), (494, 62112), (508, 62175), (520, 62220), (528, 62247), (529, 62250), (552, 62343), (563, 62385), (567, 62412), (587, 62505), (593, 62514), (597, 62517), (607, 62568), (629, 62661), (657, 62772), (667, 62793), (679, 62826), (688, 62853), (693, 62880), (700, 62898), (718, 62952), (733, 63000), (750, 63033), (800, 63141), (809, 63153), (850, 63237),

Gene: BiteSize_83 Start: 57010, Stop: 59871, Start Num: 40
Candidate Starts for BiteSize_83:
(Start: 40 @57010 has 31 MA's), (60, 57082), (86, 57229), (113, 57406), (143, 57565), (144, 57568), (151, 57604), (155, 57637), (175, 57700), (185, 57736), (225, 57859), (259, 57982), (270, 58018), (283, 58075), (288, 58102), (292, 58120), (299, 58147), (320, 58201), (415, 58495), (418, 58513), (430, 58534), (445, 58573), (447, 58588), (459, 58642), (462, 58651), (492, 58729), (501, 58771), (525, 58858), (526, 58861), (544, 58915), (558, 58987), (560, 58993), (574, 59068), (578, 59083), (607, 59179), (622, 59230), (627, 59260), (628, 59272), (640, 59314), (643, 59323), (649, 59356), (653, 59368), (663, 59401), (665, 59404), (679, 59446), (680, 59449), (690, 59485), (727, 59572), (740, 59596), (742, 59605), (808, 59737), (845, 59818), (857, 59842),

Gene: BobtimousPrime_94 Start: 65421, Stop: 68357, Start Num: 38
Candidate Starts for BobtimousPrime_94:
(13, 65322), (18, 65346), (21, 65361), (22, 65367), (Start: 29 @65394 has 1 MA's), (Start: 36 @65415 has 2 MA's), (Start: 38 @65421 has 15 MA's), (54, 65475), (61, 65511), (86, 65646), (115, 65784), (167, 66045), (182, 66111), (191, 66141), (205, 66201), (211, 66231), (214, 66258), (255, 66423), (275, 66510), (284, 66543), (285, 66564), (287, 66570), (294, 66597), (306, 66627), (312, 66645), (315, 66651), (331, 66741), (341, 66780), (444, 67050), (476, 67149), (506, 67254), (508, 67260), (513, 67275), (533, 67344), (539, 67368), (548, 67389), (556, 67434), (569, 67485), (574, 67521), (584, 67560), (607, 67632), (609, 67635), (610, 67638), (622, 67680), (631, 67740), (633, 67746), (634, 67755), (646, 67791), (657, 67839), (662, 67854), (679, 67899), (687, 67923), (728, 68058), (759, 68121), (781, 68172), (794, 68196), (810, 68232), (841, 68298),

Gene: Bonum_56 Start: 42802, Stop: 40232, Start Num: 44
Candidate Starts for Bonum_56:
(Start: 44 @42802 has 44 MA's), (86, 42622), (147, 42340), (168, 42253), (172, 42238), (178, 42211), (214, 42094), (225, 42055), (228, 42031), (245, 41956), (277, 41818), (305, 41743), (307, 41740), (345, 41665), (346, 41662), (382, 41572), (406, 41524), (422, 41485), (454, 41437), (462, 41410), (479, 41365), (481, 41359), (504, 41278), (515, 41239), (535, 41173), (564, 41062), (587, 40945), (591, 40936), (599, 40906), (601, 40897), (609, 40870), (622, 40825), (627, 40795), (631, 40768), (632, 40765), (633, 40762), (638, 40747), (646, 40717), (657, 40669), (670, 40633), (684, 40597), (687, 40588), (697, 40549), (704, 40528), (708, 40516), (726, 40453), (744, 40423), (788, 40333), (795, 40315),

Gene: Braxoaddie_53 Start: 40101, Stop: 37501, Start Num: 49
Candidate Starts for Braxoaddie_53:
(Start: 49 @40101 has 6 MA's), (72, 39984), (86, 39921), (88, 39912), (93, 39894), (135, 39708), (137, 39696), (138, 39690), (198, 39447), (214, 39402), (219, 39384), (227, 39342), (230, 39336), (233, 39318), (235, 39312), (252, 39240), (266, 39180), (310, 39033), (327, 39018), (329, 39015), (342, 38976), (360, 38934), (365, 38925), (374, 38901), (455, 38736), (481, 38661), (486, 38649), (504, 38580), (519, 38529), (539, 38463), (557, 38388), (567, 38346), (579, 38286), (586, 38259), (601, 38205), (604, 38193), (607, 38181), (622, 38133), (632, 38073), (633, 38070), (638, 38055), (666, 37956), (687, 37896), (741, 37728), (795, 37611), (805, 37587), (818, 37557), (820, 37554), (825, 37542), (833, 37524),

Gene: Buggaboo_54 Start: 43281, Stop: 40711, Start Num: 44
Candidate Starts for Buggaboo_54:
(Start: 44 @43281 has 44 MA's), (86, 43101), (147, 42819), (168, 42732), (172, 42717), (178, 42690), (214, 42573), (225, 42534), (228, 42510), (277, 42297), (305, 42222), (307, 42219), (345, 42144), (346, 42141), (382, 42051), (406, 42003), (422, 41964), (454, 41916), (462, 41889), (479, 41844), (481, 41838), (504, 41757), (515, 41718), (535, 41652), (564, 41541), (587, 41424), (591, 41415), (599, 41385), (601, 41376), (609, 41349), (622, 41304), (627, 41274), (631, 41247), (632, 41244), (633, 41241), (638, 41226), (646, 41196), (657, 41148), (670, 41112), (684, 41076), (687, 41067), (697, 41028), (704, 41007), (708, 40995), (726, 40932), (744, 40902), (788, 40812), (795, 40794),

Gene: Butterscotch_86 Start: 61184, Stop: 64135, Start Num: 40
Candidate Starts for Butterscotch_86:
(Start: 40 @61184 has 31 MA's), (79, 61367), (123, 61577), (134, 61622), (161, 61775), (182, 61862), (191, 61895), (193, 61901), (196, 61916), (199, 61931), (214, 61979), (236, 62072), (241, 62108), (245, 62117), (267, 62192), (269, 62204), (280, 62255), (282, 62264), (321, 62408), (349, 62531), (357, 62555), (371, 62591), (383, 62627), (408, 62681), (410, 62687), (420, 62729), (437, 62765), (453, 62831), (494, 62957), (497, 62966), (505, 63008), (510, 63026), (518, 63056), (534, 63104), (549, 63167), (553, 63188), (568, 63254), (585, 63335), (609, 63410), (618, 63440), (622, 63455), (627, 63485), (640, 63539), (653, 63593), (656, 63608), (657, 63611), (658, 63614), (671, 63653), (673, 63662), (687, 63692), (693, 63722), (700, 63740), (709, 63767), (723, 63809), (727, 63833), (735, 63848), (754, 63887), (772, 63929), (776, 63938), (796, 63986), (857, 64112), (858, 64118),

Gene: C3PO_38 Start: 37166, Stop: 34623, Start Num: 52
Candidate Starts for C3PO_38:
(32, 37223), (51, 37169), (Start: 52 @37166 has 8 MA's), (68, 37085), (69, 37076), (72, 37055), (86, 36989), (104, 36965), (110, 36923), (114, 36902), (122, 36845), (138, 36764), (139, 36761), (149, 36719), (172, 36647), (213, 36482), (214, 36470), (228, 36407), (235, 36380), (250, 36317), (287, 36167), (298, 36137), (346, 36059), (391, 35945), (404, 35921), (460, 35810), (463, 35801), (486, 35741), (491, 35729), (503, 35675), (516, 35630), (521, 35606), (528, 35582), (530, 35573), (535, 35561), (566, 35429), (570, 35417), (577, 35372), (586, 35339), (601, 35288), (604, 35276), (607, 35264), (693, 34946), (747, 34805), (763, 34769), (769, 34757), (787, 34715), (817, 34655),

Gene: Candle_87 Start: 65111, Stop: 67858, Start Num: 41
Candidate Starts for Candle_87:
(Start: 41 @65111 has 9 MA's), (55, 65162), (58, 65174), (62, 65198), (113, 65450), (132, 65555), (133, 65567), (141, 65618), (144, 65636), (146, 65648), (150, 65663), (168, 65732), (178, 65774), (189, 65810), (191, 65819), (210, 65882), (214, 65894), (224, 65927), (234, 65981), (344, 66317), (365, 66362), (373, 66386), (374, 66389), (379, 66410), (383, 66419), (416, 66488), (448, 66560), (455, 66596), (461, 66608), (474, 66644), (484, 66671), (486, 66674), (490, 66683), (494, 66695), (499, 66722), (511, 66767), (520, 66803), (525, 66818), (548, 66884), (565, 66965), (567, 66983), (571, 66992), (572, 66998), (576, 67031), (577, 67034), (609, 67136), (610, 67139), (612, 67142),

(627, 67208), (633, 67241), (647, 67295), (649, 67304), (656, 67331), (682, 67400), (687, 67418), (689, 67430), (696, 67454), (698, 67457), (701, 67466), (705, 67475), (717, 67511), (728, 67553), (757, 67610), (779, 67664), (826, 67766), (861, 67841),

Gene: CardboardBox_34 Start: 21717, Stop: 19513, Start Num: 136
Candidate Starts for CardboardBox_34:
(Start: 136 @21717 has 11 MA's), (148, 21663), (284, 21114), (340, 20985), (343, 20970), (372, 20886), (408, 20802), (426, 20757), (440, 20739), (462, 20688), (468, 20667), (500, 20568), (524, 20478), (539, 20433), (556, 20358), (578, 20256), (592, 20208), (608, 20154), (624, 20088), (627, 20070), (652, 19968), (657, 19947), (690, 19854), (692, 19842), (713, 19788), (727, 19734), (746, 19695), (773, 19635), (779, 19620), (792, 19590),

Gene: Cborch11_93 Start: 64787, Stop: 67738, Start Num: 36
Candidate Starts for Cborch11_93:
(9, 64637), (11, 64661), (12, 64667), (15, 64685), (19, 64703), (20, 64721), (22, 64739), (Start: 29 @64766 has 1 MA's), (Start: 36 @64787 has 2 MA's), (Start: 38 @64793 has 15 MA's), (54, 64847), (61, 64883), (86, 65018), (115, 65156), (167, 65417), (182, 65483), (191, 65513), (205, 65573), (211, 65603), (214, 65630), (255, 65795), (275, 65882), (284, 65915), (285, 65936), (287, 65942), (294, 65969), (306, 65999), (312, 66017), (315, 66023), (331, 66113), (341, 66152), (444, 66422), (476, 66521), (506, 66626), (508, 66632), (513, 66647), (533, 66716), (539, 66740), (548, 66761), (556, 66806), (569, 66857), (574, 66893), (584, 66932), (607, 67004), (609, 67007), (610, 67010), (622, 67052), (631, 67112), (633, 67118), (634, 67127), (646, 67163), (657, 67211), (662, 67226), (679, 67271), (687, 67295), (724, 67412), (730, 67433), (743, 67463), (771, 67517), (806, 67592), (810, 67601), (840, 67664),

Gene: Cece_87 Start: 73398, Stop: 70756, Start Num: 83
Candidate Starts for Cece_87:
(Start: 83 @73398 has 5 MA's), (108, 73263), (148, 73008), (150, 72993), (154, 72960), (179, 72870), (188, 72825), (193, 72804), (194, 72801), (220, 72702), (227, 72678), (232, 72660), (263, 72546), (272, 72504), (274, 72492), (275, 72489), (327, 72342), (357, 72261), (359, 72255), (380, 72195), (393, 72165), (424, 72093), (498, 71904), (511, 71862), (535, 71781), (566, 71643), (570, 71631), (575, 71595), (578, 71583), (605, 71478), (611, 71463), (619, 71427), (623, 71412), (651, 71286), (709, 71106), (724, 71058), (727, 71040), (746, 71001), (768, 70953), (798, 70881), (799, 70878), (833, 70803),

Gene: ChamoyPickle_35 Start: 22257, Stop: 20053, Start Num: 136
Candidate Starts for ChamoyPickle_35:
(Start: 136 @22257 has 11 MA's), (148, 22203), (284, 21654), (340, 21525), (343, 21510), (372, 21426), (408, 21342), (426, 21297), (440, 21279), (462, 21228), (468, 21207), (500, 21108), (524, 21018), (539, 20973), (556, 20898), (578, 20796), (592, 20748), (608, 20694), (624, 20628), (627, 20610), (652, 20508), (657, 20487), (690, 20394), (692, 20382), (713, 20328), (727, 20274), (746, 20235), (773, 20175), (779, 20160), (792, 20130),

Gene: Charminar_85 Start: 57821, Stop: 60592, Start Num: 39
Candidate Starts for Charminar_85:
(Start: 39 @57821 has 40 MA's), (62, 57911), (129, 58229), (190, 58517), (191, 58523), (193, 58529), (203, 58568), (217, 58607), (227, 58655), (234, 58682), (239, 58715), (254, 58757), (255, 58760), (263, 58790), (279, 58856), (286, 58877), (287, 58880), (296, 58907), (318, 58961), (341, 59030), (366, 59102), (386, 59162), (397, 59186), (414, 59219), (449, 59291), (498, 59459), (500, 59465), (511, 59507), (521, 59546), (546, 59627), (567, 59732), (574, 59774), (581, 59798), (584, 59813), (604, 59873), (609, 59888), (610, 59891), (619, 59921), (633, 59993), (658, 60092), (672, 60134), (686, 60167), (689, 60182), (709, 60245), (720, 60278), (733, 60320), (790, 60443), (800, 60464), (823, 60500), (825, 60503),

Gene: ChewyVIII_64 Start: 47777, Stop: 45207, Start Num: 44
Candidate Starts for ChewyVIII_64:
(Start: 44 @47777 has 44 MA's), (61, 47723), (86, 47594), (143, 47348), (158, 47279), (168, 47264), (197, 47150), (214, 47096), (227, 47036), (273, 46841), (275, 46832), (279, 46814), (346, 46670), (368, 46622), (396, 46547), (399, 46541), (406, 46532), (417, 46505), (423, 46490), (465, 46406), (478, 46373), (481, 46364), (490, 46343), (522, 46214), (535, 46175), (555, 46091), (558, 46079), (568, 46037), (578, 45983), (585, 45956), (586, 45953), (587, 45947), (619, 45839), (622, 45827), (624, 45815), (632, 45767), (634, 45755), (642, 45737), (646, 45719), (653, 45689), (657, 45671), (676, 45608), (684, 45581), (687, 45572), (693, 45542), (700, 45524), (788, 45308),

Gene: Chill_89 Start: 61161, Stop: 64103, Start Num: 40
Candidate Starts for Chill_89:
(Start: 40 @61161 has 31 MA's), (79, 61344), (123, 61554), (134, 61599), (161, 61752), (182, 61839), (191, 61872), (196, 61893), (199, 61908), (214, 61956), (236, 62049), (241, 62085), (245, 62094), (267, 62169), (269, 62181), (280, 62232), (282, 62241), (321, 62385), (349, 62508), (357, 62532), (371, 62568), (383, 62604), (408, 62658), (410, 62664), (420, 62706), (437, 62742), (453, 62808), (494, 62925), (497, 62934), (510, 62994), (521, 63033), (534, 63072), (549, 63135), (553, 63156), (568, 63222), (585, 63303), (609, 63378), (618, 63408), (622, 63423), (627, 63453), (640, 63507), (653, 63561), (656, 63576), (657, 63579), (658, 63582), (671, 63621), (673, 63630), (687, 63660), (693, 63690), (709, 63735), (723, 63777), (727, 63801), (735, 63816), (754, 63855), (772, 63897), (776, 63906), (796, 63954), (857, 64080), (858, 64086),

Gene: ChipsNGuac_33 Start: 21717, Stop: 19513, Start Num: 136
Candidate Starts for ChipsNGuac_33:
(Start: 136 @21717 has 11 MA's), (148, 21663), (284, 21114), (340, 20985), (343, 20970), (372, 20886), (408, 20802), (426, 20757), (440, 20739), (462, 20688), (468, 20667), (500, 20568), (524, 20478), (539, 20433), (556, 20358), (578, 20256), (592, 20208), (608, 20154), (624, 20088), (627, 20070), (652, 19968), (657, 19947), (690, 19854), (692, 19842), (713, 19788), (727, 19734), (746, 19695), (773, 19635), (779, 19620), (792, 19590),

Gene: CoffeeBean_53 Start: 40059, Stop: 37459, Start Num: 49
Candidate Starts for CoffeeBean_53:
(Start: 49 @40059 has 6 MA's), (72, 39942), (86, 39879), (88, 39870), (93, 39852), (135, 39666), (137, 39654), (138, 39648), (198, 39405), (214, 39360), (219, 39342), (227, 39300), (230, 39294), (233, 39276), (235, 39270), (252, 39198), (266, 39138), (310, 38991), (327, 38976), (329, 38973), (342, 38934), (360, 38892), (365, 38883), (374, 38859), (455, 38694), (481, 38619), (486, 38607), (504, 38538), (519, 38487), (539, 38421), (557, 38346), (567, 38304), (579, 38244), (586, 38217), (601, 38163), (604, 38151), (607, 38139), (622, 38091), (632, 38031), (633, 38028), (638, 38013), (666, 37914), (687, 37854), (741, 37686), (795, 37569), (805, 37545), (818, 37515), (820, 37512), (825, 37500), (833, 37482),

Gene: Commandaria_53 Start: 43256, Stop: 40707, Start Num: 44
Candidate Starts for Commandaria_53:
(33, 43301), (Start: 44 @43256 has 44 MA's), (63, 43178), (86, 43070), (117, 42947), (156, 42749), (214, 42572), (225, 42533), (227, 42512), (228, 42509), (231, 42497), (233, 42488), (245, 42434), (271, 42326), (298, 42233), (305, 42218), (346, 42137), (382, 42047), (401, 42005), (406, 41999), (411, 41987), (417, 41972), (454, 41912), (466, 41873), (479, 41840), (481, 41834), (484, 41825), (504, 41753), (535, 41651), (555, 41567), (557, 41558), (564, 41540), (577, 41462), (599, 41384), (601, 41375), (622, 41303), (627, 41273), (632, 41243), (638, 41225), (646, 41195), (657, 41147), (687, 41066), (704, 41006), (724, 40946), (726, 40931), (751, 40892), (788, 40811), (795, 40793), (802, 40775), (811, 40757),

Gene: Cruella_38 Start: 37166, Stop: 34623, Start Num: 52
Candidate Starts for Cruella_38:
(32, 37223), (51, 37169), (Start: 52 @37166 has 8 MA's), (68, 37085), (69, 37076), (72, 37055), (86, 36989), (104, 36965), (110, 36923), (114, 36902), (122, 36845), (138, 36764), (139, 36761), (149, 36719), (172, 36647), (213, 36482), (214, 36470), (228, 36407), (235, 36380), (250, 36317), (287, 36167), (298, 36137), (346, 36059), (391, 35945), (404, 35921), (460, 35810), (463, 35801), (486, 35741), (491, 35729), (503, 35675), (516, 35630), (521, 35606), (528, 35582), (530, 35573), (535, 35561), (566, 35429), (570, 35417), (577, 35372), (586, 35339), (601, 35288), (604, 35276), (607, 35264), (693, 34946), (747, 34805), (763, 34769), (769, 34757), (787, 34715), (817, 34655),

Gene: Cuke_107 Start: 58893, Stop: 61625, Start Num: 41
Candidate Starts for Cuke_107:
(Start: 41 @58893 has 9 MA's), (76, 59055), (129, 59292), (143, 59367), (172, 59484), (174, 59487), (207, 59625), (213, 59646), (214, 59658), (217, 59670), (241, 59787), (255, 59823), (266, 59865), (288, 59964), (326, 60039), (328, 60042), (352, 60114), (376, 60171), (390, 60210), (402, 60231), (414, 60258), (430, 60300), (441, 60327), (452, 60357), (468, 60408), (479, 60432), (485, 60447), (494, 60468), (496, 60474), (498, 60492), (509, 60534), (514, 60549), (518, 60570), (548, 60651), (555, 60690), (558, 60702), (562, 60711), (571, 60753), (574, 60783), (580, 60804), (581, 60807), (604, 60891), (623, 60951), (642, 61038), (643, 61041), (656, 61101), (657, 61104), (658, 61107), (666, 61125), (687, 61188), (689, 61200), (690, 61203), (695, 61224), (714, 61278), (720, 61296), (723, 61305), (726, 61326), (778, 61440), (796, 61482), (812, 61518), (817, 61527), (820, 61533), (837, 61575), (841, 61581), (846, 61590), (853, 61605),

Gene: Dalilpop_57 Start: 44428, Stop: 41867, Start Num: 44
Candidate Starts for Dalilpop_57:
(2, 44695), (4, 44656), (17, 44554), (24, 44494), (Start: 44 @44428 has 44 MA's), (86, 44245), (87, 44239), (88, 44236), (129, 44062), (178, 43843), (214, 43723), (225, 43684), (227, 43663), (228, 43660), (245, 43585), (268, 43492), (298, 43387), (346, 43291), (442, 43084), (470, 43012), (479, 42994), (481, 42988), (484, 42979), (504, 42907), (555, 42727), (564, 42700), (599, 42544), (609, 42508), (622, 42463), (627, 42433), (631, 42406), (632, 42403), (633, 42400), (638, 42385), (646, 42355), (657, 42307), (666, 42286), (674, 42265), (684, 42235), (687, 42226), (708, 42154), (716, 42136), (724, 42106), (726, 42091), (788, 41974), (811, 41920),

Gene: Damien_92 Start: 64671, Stop: 67616, Start Num: 38
Candidate Starts for Damien_92:
(9, 64587), (11, 64611), (12, 64617), (Start: 29 @64644 has 1 MA's), (Start: 36 @64665 has 2 MA's), (Start: 38 @64671 has 15 MA's), (54, 64725), (61, 64761), (86, 64896), (115, 65034), (167, 65295), (182, 65361), (191, 65391), (205, 65451), (211, 65481), (214, 65508), (255, 65673), (275, 65760), (284, 65793), (285, 65814), (287, 65820), (294, 65847), (306, 65877), (312, 65895), (315, 65901), (331, 65991), (341, 66030), (444, 66300), (476, 66399), (506, 66504), (508, 66510), (513, 66525), (533, 66594), (539, 66618), (548, 66639), (556, 66684), (569, 66735), (574, 66771), (584, 66810), (607, 66882), (609, 66885), (610, 66888), (622, 66930), (626, 66960), (631, 66990), (633, 66996), (634, 67005), (642, 67023), (643, 67026), (646, 67041), (657, 67089), (662, 67104), (679, 67149), (687, 67173), (724, 67290), (730, 67311), (743, 67341), (771, 67395), (806, 67470), (810, 67479), (840, 67542),

Gene: Darwin_42 Start: 37044, Stop: 34501, Start Num: 52
Candidate Starts for Darwin_42:
(32, 37101), (51, 37047), (Start: 52 @37044 has 8 MA's), (69, 36954), (72, 36933), (86, 36867), (104, 36843), (110, 36801), (114, 36780), (122, 36723), (138, 36642), (139, 36639), (149, 36597), (172, 36525), (213, 36360), (214, 36348), (228, 36285), (235, 36258), (250, 36195), (287, 36045), (298, 36015), (346, 35937), (391, 35823), (404, 35799), (419, 35766), (431, 35745), (460, 35688), (463, 35679), (486, 35619), (488, 35616), (491, 35607), (494, 35598), (502, 35559), (503, 35553), (516,

35508), (518, 35493), (521, 35484), (528, 35460), (530, 35451), (535, 35439), (566, 35307), (570, 35295), (577, 35250), (586, 35217), (601, 35166), (604, 35154), (607, 35142), (619, 35106), (693, 34824), (712, 34770), (747, 34683), (763, 34647), (769, 34635), (787, 34593), (817, 34533),

Gene: DaviePasture_89 Start: 60116, Stop: 62887, Start Num: 39
Candidate Starts for DaviePasture_89:
(Start: 39 @60116 has 40 MA's), (62, 60206), (129, 60524), (152, 60689), (190, 60812), (191, 60818), (193, 60824), (203, 60863), (227, 60950), (234, 60977), (239, 61010), (254, 61052), (255, 61055), (263, 61085), (279, 61151), (286, 61172), (287, 61175), (296, 61202), (318, 61256), (341, 61325), (366, 61397), (386, 61457), (397, 61481), (414, 61514), (449, 61586), (498, 61754), (511, 61802), (512, 61805), (521, 61841), (546, 61922), (567, 62027), (574, 62069), (581, 62093), (584, 62108), (604, 62168), (609, 62183), (610, 62186), (619, 62216), (633, 62288), (658, 62387), (672, 62429), (686, 62462), (689, 62477), (700, 62513), (709, 62540), (714, 62555), (720, 62573), (725, 62594), (729, 62609), (733, 62615), (790, 62738), (800, 62759), (823, 62795), (825, 62798),

Gene: Delton_87 Start: 61594, Stop: 64536, Start Num: 40
Candidate Starts for Delton_87:
(Start: 40 @61594 has 31 MA's), (79, 61777), (123, 61987), (134, 62032), (161, 62185), (182, 62272), (191, 62305), (196, 62326), (199, 62341), (214, 62389), (236, 62482), (241, 62518), (245, 62527), (267, 62602), (269, 62614), (280, 62665), (282, 62674), (321, 62818), (349, 62941), (357, 62965), (371, 63001), (383, 63037), (408, 63091), (410, 63097), (420, 63139), (437, 63175), (453, 63241), (494, 63358), (497, 63367), (505, 63409), (510, 63427), (521, 63466), (534, 63505), (549, 63568), (553, 63589), (568, 63655), (585, 63736), (609, 63811), (618, 63841), (622, 63856), (627, 63886), (640, 63940), (653, 63994), (656, 64009), (657, 64012), (658, 64015), (671, 64054), (673, 64063), (687, 64093), (693, 64123), (700, 64141), (709, 64168), (723, 64210), (727, 64234), (735, 64249), (754, 64288), (772, 64330), (776, 64339), (796, 64387), (857, 64513), (858, 64519),

Gene: Demikore_109 Start: 66287, Stop: 68983, Start Num: 48
Candidate Starts for Demikore_109:
(Start: 42 @66269 has 4 MA's), (46, 66284), (48, 66287), (62, 66350), (63, 66362), (71, 66398), (159, 66815), (167, 66830), (172, 66854), (182, 66896), (183, 66902), (191, 66926), (214, 67007), (222, 67034), (247, 67154), (258, 67193), (271, 67247), (287, 67319), (298, 67349), (301, 67355), (323, 67397), (332, 67412), (338, 67421), (350, 67472), (353, 67484), (362, 67502), (373, 67529), (406, 67607), (444, 67706), (451, 67727), (454, 67739), (494, 67841), (500, 67871), (505, 67892), (513, 67922), (518, 67946), (553, 68045), (558, 68069), (563, 68081), (574, 68150), (657, 68468), (674, 68516), (683, 68531), (685, 68540), (687, 68546), (688, 68549), (693, 68576), (699, 68588), (702, 68597), (717, 68639), (734, 68690), (755, 68732), (766, 68759), (792, 68816), (824, 68885), (838, 68918), (842, 68924), (850, 68942),

Gene: Djokovic_83 Start: 56923, Stop: 59784, Start Num: 40
Candidate Starts for Djokovic_83:
(Start: 40 @56923 has 31 MA's), (60, 56995), (86, 57142), (113, 57319), (143, 57478), (144, 57481), (151, 57517), (155, 57550), (175, 57613), (185, 57649), (225, 57772), (259, 57895), (270, 57931), (283, 57988), (288, 58015), (292, 58033), (299, 58060), (320, 58114), (415, 58408), (418, 58426), (430, 58447), (445, 58486), (447, 58501), (459, 58555), (462, 58564), (492, 58642), (501, 58684), (525, 58771), (526, 58774), (544, 58828), (558, 58900), (560, 58906), (574, 58981), (578, 58996), (607, 59092), (622, 59143), (627, 59173), (628, 59185), (640, 59227), (643, 59236), (649, 59269), (653, 59281), (663, 59314), (665, 59317), (679, 59359), (680, 59362), (690, 59398), (727, 59485), (740, 59509), (742, 59518), (808, 59650), (845, 59731), (857, 59755),

Gene: Dodo_106 Start: 71533, Stop: 68858, Start Num: 78
Candidate Starts for Dodo_106:

(Start: 78 @71533 has 2 MA's), (80, 71512), (Start: 83 @71503 has 5 MA's), (120, 71266), (150, 71098), (157, 71047), (188, 70930), (193, 70909), (210, 70843), (227, 70771), (232, 70753), (240, 70720), (249, 70693), (263, 70639), (272, 70597), (274, 70585), (275, 70582), (311, 70471), (335, 70423), (359, 70342), (380, 70282), (393, 70252), (403, 70231), (432, 70171), (446, 70144), (498, 69991), (506, 69958), (511, 69949), (515, 69937), (566, 69730), (567, 69727), (575, 69682), (605, 69565), (611, 69550), (614, 69541), (619, 69514), (623, 69499), (651, 69373), (661, 69337), (672, 69301), (694, 69238), (723, 69151), (724, 69145), (727, 69127), (746, 69088), (768, 69040), (786, 68998), (799, 68965),

Gene: Doedicurus_46 Start: 32223, Stop: 29659, Start Num: 101
Candidate Starts for Doedicurus_46:
(57, 32469), (64, 32427), (75, 32346), (84, 32292), (94, 32253), (95, 32247), (Start: 101 @32223 has 2 MA's), (124, 32067), (196, 31779), (201, 31758), (246, 31581), (257, 31545), (260, 31530), (297, 31398), (300, 31386), (387, 31149), (409, 31107), (442, 31038), (465, 30987), (495, 30906), (506, 30858), (525, 30795), (532, 30777), (547, 30729), (550, 30714), (553, 30690), (566, 30639), (568, 30633), (598, 30531), (603, 30498), (606, 30489), (629, 30384), (659, 30273), (723, 30087), (753, 30012), (760, 29997), (814, 29874), (815, 29868), (825, 29847), (865, 29754), (870, 29676),

Gene: DoobyDoo_88 Start: 58914, Stop: 61589, Start Num: 39
Candidate Starts for DoobyDoo_88:
(Start: 39 @58914 has 40 MA's), (143, 59391), (144, 59394), (168, 59475), (191, 59559), (210, 59619), (214, 59631), (221, 59655), (228, 59691), (271, 59865), (276, 59895), (296, 59946), (350, 60075), (361, 60102), (397, 60195), (413, 60228), (423, 60231), (428, 60237), (454, 60276), (464, 60309), (489, 60372), (501, 60426), (519, 60495), (520, 60498), (525, 60513), (543, 60579), (548, 60606), (567, 60696), (574, 60738), (578, 60753), (585, 60780), (601, 60828), (616, 60870), (622, 60900), (632, 60963), (653, 61041), (657, 61059), (667, 61083), (672, 61107), (675, 61119), (689, 61167), (693, 61185), (720, 61263), (733, 61305), (789, 61428), (800, 61455), (837, 61533),

Gene: DrLupo_109 Start: 66667, Stop: 69420, Start Num: 38
Candidate Starts for DrLupo_109:
(Start: 36 @66661 has 2 MA's), (Start: 38 @66667 has 15 MA's), (182, 67324), (191, 67351), (210, 67414), (214, 67426), (221, 67450), (228, 67489), (236, 67519), (244, 67561), (249, 67579), (275, 67678), (302, 67765), (356, 67900), (362, 67912), (389, 67987), (400, 68011), (406, 68020), (411, 68032), (444, 68119), (450, 68134), (492, 68248), (497, 68263), (499, 68281), (504, 68302), (556, 68482), (563, 68500), (574, 68569), (576, 68578), (580, 68590), (581, 68593), (585, 68611), (604, 68668), (638, 68815), (645, 68842), (679, 68947), (685, 68965), (687, 68971), (689, 68983), (708, 69043), (720, 69076), (722, 69082), (736, 69127), (743, 69142), (767, 69187), (810, 69280), (837, 69334),

Gene: DumpTruck_91 Start: 60124, Stop: 62823, Start Num: 39
Candidate Starts for DumpTruck_91:
(Start: 39 @60124 has 40 MA's), (86, 60355), (113, 60427), (119, 60460), (129, 60511), (168, 60682), (182, 60739), (190, 60760), (191, 60766), (196, 60787), (210, 60826), (214, 60838), (224, 60871), (235, 60925), (239, 60961), (251, 61003), (296, 61180), (350, 61309), (361, 61336), (377, 61384), (388, 61411), (397, 61429), (413, 61462), (454, 61510), (475, 61570), (497, 61633), (501, 61660), (519, 61729), (520, 61732), (521, 61735), (562, 61900), (567, 61930), (574, 61972), (578, 61987), (581, 61996), (601, 62062), (602, 62065), (604, 62074), (616, 62104), (632, 62197), (634, 62209), (653, 62275), (667, 62317), (672, 62341), (675, 62353), (678, 62362), (686, 62386), (693, 62419), (707, 62461), (720, 62497), (729, 62533), (789, 62662), (800, 62689), (819, 62725), (837, 62767), (857, 62800),

Gene: Emianna_52 Start: 43124, Stop: 40575, Start Num: 44
Candidate Starts for Emianna_52:

(Start: 44 @43124 has 44 MA's), (63, 43052), (86, 42944), (117, 42818), (156, 42620), (169, 42593), (187, 42530), (197, 42497), (214, 42443), (225, 42404), (227, 42383), (228, 42380), (262, 42239), (305, 42089), (309, 42077), (346, 42008), (382, 41918), (406, 41870), (417, 41843), (423, 41828), (442, 41801), (479, 41711), (481, 41705), (484, 41696), (514, 41588), (557, 41426), (577, 41330), (599, 41252), (601, 41243), (609, 41216), (627, 41141), (638, 41093), (646, 41063), (657, 41015), (684, 40943), (687, 40934), (704, 40874), (706, 40868), (708, 40862), (726, 40799), (777, 40706), (783, 40688), (788, 40679), (802, 40643), (820, 40610),

Gene: Ennea_59 Start: 44147, Stop: 41586, Start Num: 44
Candidate Starts for Ennea_59:
(24, 44213), (Start: 44 @44147 has 44 MA's), (56, 44120), (63, 44072), (86, 43964), (178, 43559), (187, 43529), (214, 43439), (225, 43400), (227, 43379), (228, 43376), (234, 43352), (245, 43301), (268, 43208), (277, 43163), (278, 43160), (298, 43103), (346, 43007), (470, 42728), (479, 42710), (481, 42704), (484, 42695), (504, 42623), (555, 42443), (564, 42416), (599, 42260), (607, 42227), (622, 42179), (631, 42122), (632, 42119), (638, 42101), (646, 42071), (657, 42023), (666, 42002), (674, 41981), (687, 41942), (708, 41870), (716, 41852), (725, 41816), (726, 41807), (752, 41765), (788, 41690), (802, 41654), (811, 41636),

Gene: Erasmago_95 Start: 67992, Stop: 65359, Start Num: 83
Candidate Starts for Erasmago_95:
(Start: 78 @68022 has 2 MA's), (80, 68001), (Start: 83 @67992 has 5 MA's), (121, 67752), (146, 67608), (171, 67494), (179, 67464), (188, 67419), (192, 67401), (193, 67398), (194, 67395), (227, 67263), (232, 67245), (240, 67212), (249, 67185), (263, 67131), (272, 67089), (274, 67077), (311, 66963), (313, 66960), (336, 66915), (351, 66855), (357, 66843), (359, 66837), (380, 66777), (393, 66747), (463, 66597), (472, 66567), (498, 66486), (511, 66444), (516, 66429), (566, 66225), (567, 66222), (605, 66060), (611, 66045), (614, 66036), (619, 66009), (651, 65868), (672, 65796), (724, 65640), (727, 65622), (746, 65583), (768, 65535), (798, 65463),

Gene: Erk16_89 Start: 61516, Stop: 64449, Start Num: 40
Candidate Starts for Erk16_89:
(Start: 40 @61516 has 31 MA's), (79, 61699), (123, 61909), (134, 61954), (161, 62107), (182, 62194), (191, 62227), (196, 62248), (199, 62263), (214, 62311), (236, 62404), (241, 62440), (245, 62449), (267, 62524), (269, 62536), (280, 62587), (282, 62596), (321, 62740), (349, 62863), (371, 62923), (383, 62959), (408, 63013), (410, 63019), (420, 63061), (437, 63097), (453, 63163), (494, 63271), (497, 63280), (505, 63322), (510, 63340), (534, 63418), (549, 63481), (553, 63502), (568, 63568), (585, 63649), (609, 63724), (618, 63754), (622, 63769), (627, 63799), (640, 63853), (653, 63907), (656, 63922), (657, 63925), (658, 63928), (671, 63967), (673, 63976), (687, 64006), (693, 64036), (709, 64081), (723, 64123), (727, 64147), (735, 64162), (754, 64201), (772, 64243), (776, 64252), (796, 64300), (857, 64426), (858, 64432),

Gene: Erutan_88 Start: 60078, Stop: 62780, Start Num: 39
Candidate Starts for Erutan_88:
(Start: 39 @60078 has 40 MA's), (143, 60555), (144, 60558), (168, 60639), (191, 60723), (210, 60783), (214, 60795), (221, 60819), (228, 60855), (271, 61029), (276, 61059), (296, 61110), (350, 61263), (366, 61296), (423, 61446), (449, 61485), (468, 61563), (475, 61575), (477, 61578), (487, 61605), (497, 61638), (504, 61677), (516, 61716), (525, 61752), (543, 61809), (544, 61815), (557, 61884), (558, 61887), (567, 61926), (568, 61929), (570, 61935), (573, 61965), (574, 61968), (579, 61986), (581, 61992), (601, 62058), (607, 62082), (619, 62118), (623, 62133), (636, 62205), (653, 62268), (667, 62307), (679, 62340), (690, 62379), (693, 62394), (700, 62412), (733, 62514), (756, 62559), (762, 62574), (788, 62622), (789, 62625), (800, 62652), (803, 62661), (810, 62673), (843, 62733),

Gene: Ezurina_32 Start: 22705, Stop: 20555, Start Num: 148
Candidate Starts for Ezurina_32:

(Start: 136 @22759 has 11 MA's), (148, 22705), (340, 22027), (343, 22012), (372, 21928), (440, 21781), (462, 21730), (468, 21709), (500, 21610), (524, 21520), (537, 21484), (553, 21418), (556, 21400), (578, 21298), (592, 21250), (608, 21196), (624, 21130), (627, 21112), (652, 21010), (657, 20989), (679, 20935), (692, 20884), (713, 20830), (727, 20776), (746, 20737), (773, 20677), (779, 20662), (792, 20632),

Gene: Flapper_57 Start: 43860, Stop: 41299, Start Num: 44
Candidate Starts for Flapper_57:
(17, 43986), (24, 43926), (Start: 44 @43860 has 44 MA's), (86, 43677), (88, 43668), (116, 43560), (146, 43404), (178, 43275), (214, 43155), (225, 43116), (227, 43095), (228, 43092), (245, 43017), (298, 42819), (346, 42723), (442, 42516), (470, 42444), (479, 42426), (481, 42420), (484, 42411), (504, 42339), (555, 42159), (564, 42132), (599, 41976), (622, 41895), (627, 41865), (631, 41838), (632, 41835), (638, 41817), (646, 41787), (655, 41745), (657, 41739), (666, 41718), (680, 41679), (708, 41586), (716, 41568), (724, 41538), (726, 41523), (788, 41406), (811, 41352),

Gene: Float294_55 Start: 43589, Stop: 41028, Start Num: 44
Candidate Starts for Float294_55:
(24, 43655), (Start: 44 @43589 has 44 MA's), (56, 43562), (63, 43514), (86, 43406), (178, 43001), (187, 42971), (214, 42881), (225, 42842), (227, 42821), (228, 42818), (234, 42794), (245, 42743), (268, 42650), (277, 42605), (278, 42602), (298, 42545), (346, 42449), (470, 42170), (479, 42152), (481, 42146), (484, 42137), (504, 42065), (555, 41885), (564, 41858), (599, 41702), (607, 41669), (622, 41621), (631, 41564), (632, 41561), (638, 41543), (646, 41513), (657, 41465), (666, 41444), (674, 41423), (687, 41384), (708, 41312), (716, 41294), (726, 41249), (752, 41207), (788, 41132), (802, 41096), (811, 41078),

Gene: Fowlmouth_101 Start: 59257, Stop: 61992, Start Num: 41
Candidate Starts for Fowlmouth_101:
(Start: 41 @59257 has 9 MA's), (143, 59731), (169, 59842), (174, 59851), (213, 60010), (214, 60022), (217, 60034), (241, 60151), (255, 60187), (266, 60229), (282, 60304), (288, 60328), (326, 60406), (352, 60481), (376, 60538), (390, 60577), (398, 60592), (402, 60598), (427, 60664), (441, 60694), (468, 60775), (479, 60799), (485, 60814), (494, 60835), (496, 60841), (558, 61069), (562, 61078), (568, 61111), (571, 61120), (574, 61150), (580, 61171), (581, 61174), (601, 61246), (604, 61258), (623, 61318), (643, 61408), (653, 61453), (654, 61456), (657, 61471), (674, 61525), (679, 61531), (688, 61558), (689, 61567), (720, 61663), (723, 61672), (729, 61699), (770, 61786), (772, 61792), (776, 61801), (796, 61849), (812, 61885), (820, 61900), (823, 61909), (850, 61969), (853, 61972),

Gene: Foxboro_53 Start: 43630, Stop: 41081, Start Num: 44
Candidate Starts for Foxboro_53:
(Start: 44 @43630 has 44 MA's), (63, 43558), (86, 43450), (117, 43324), (156, 43126), (169, 43099), (174, 43090), (187, 43036), (197, 43003), (214, 42949), (225, 42910), (227, 42889), (228, 42886), (262, 42745), (305, 42595), (309, 42583), (346, 42514), (382, 42424), (417, 42349), (423, 42334), (479, 42217), (481, 42211), (484, 42202), (514, 42094), (557, 41932), (577, 41836), (599, 41758), (601, 41749), (609, 41722), (627, 41647), (638, 41599), (646, 41569), (657, 41521), (684, 41449), (687, 41440), (704, 41380), (706, 41374), (708, 41368), (726, 41305), (777, 41212), (783, 41194), (788, 41185), (802, 41149), (820, 41116),

Gene: Fulcrum_87 Start: 59741, Stop: 62446, Start Num: 39
Candidate Starts for Fulcrum_87:
(Start: 39 @59741 has 40 MA's), (62, 59831), (129, 60149), (190, 60437), (191, 60443), (193, 60449), (203, 60488), (227, 60575), (234, 60602), (239, 60635), (254, 60677), (255, 60680), (263, 60710), (279, 60776), (286, 60797), (287, 60800), (296, 60827), (358, 60974), (414, 61106), (455, 61181), (468, 61226), (480, 61250), (494, 61289), (508, 61352), (520, 61397), (528, 61424), (529, 61427), (552, 61520), (563, 61562), (567, 61589), (587, 61682), (593, 61691), (597, 61694), (607, 61745),

(629, 61838), (657, 61949), (667, 61970), (688, 62030), (693, 62057), (700, 62075), (718, 62129), (733, 62177), (750, 62210), (800, 62318), (809, 62330), (850, 62414),

Gene: Fury_60 Start: 42279, Stop: 39745, Start Num: 44
Candidate Starts for Fury_60:
(Start: 44 @42279 has 44 MA's), (63, 42204), (86, 42096), (107, 42045), (168, 41757), (187, 41685), (214, 41598), (225, 41559), (227, 41538), (228, 41535), (236, 41505), (245, 41460), (252, 41436), (265, 41385), (298, 41262), (346, 41166), (406, 41028), (421, 40995), (442, 40959), (479, 40869), (519, 40728), (557, 40587), (564, 40569), (587, 40452), (599, 40413), (607, 40380), (622, 40332), (632, 40272), (638, 40254), (646, 40224), (657, 40176), (666, 40155), (674, 40134), (687, 40095), (697, 40056), (704, 40035), (777, 39867), (783, 39849), (788, 39840), (800, 39810), (811, 39786),

Gene: FuzzBuster_83 Start: 50816, Stop: 53374, Start Num: 97
Candidate Starts for FuzzBuster_83:
(Start: 97 @50816 has 1 MA's), (131, 51020), (146, 51101), (184, 51281), (199, 51350), (212, 51389), (237, 51500), (243, 51536), (254, 51569), (261, 51602), (266, 51623), (274, 51662), (293, 51722), (304, 51755), (314, 51779), (418, 52070), (427, 52088), (457, 52139), (471, 52187), (473, 52190), (483, 52220), (491, 52238), (498, 52271), (500, 52277), (515, 52331), (527, 52379), (554, 52484), (561, 52505), (575, 52577), (594, 52631), (603, 52670), (608, 52685), (624, 52751), (629, 52784), (632, 52799), (635, 52811), (647, 52853), (648, 52856), (656, 52886), (658, 52892), (696, 52994), (723, 53069), (739, 53111), (748, 53126), (781, 53201), (801, 53240), (831, 53303), (844, 53327), (848, 53336), (855, 53348),

Gene: GOATification_87 Start: 59741, Stop: 62446, Start Num: 39
Candidate Starts for GOATification_87:
(Start: 39 @59741 has 40 MA's), (62, 59831), (129, 60149), (190, 60437), (191, 60443), (193, 60449), (203, 60488), (227, 60575), (234, 60602), (239, 60635), (254, 60677), (255, 60680), (263, 60710), (279, 60776), (286, 60797), (287, 60800), (296, 60827), (358, 60974), (414, 61106), (455, 61181), (468, 61226), (480, 61250), (494, 61289), (508, 61352), (520, 61397), (528, 61424), (529, 61427), (552, 61520), (563, 61562), (567, 61589), (587, 61682), (593, 61691), (597, 61694), (607, 61745), (629, 61838), (657, 61949), (667, 61970), (688, 62030), (693, 62057), (700, 62075), (718, 62129), (733, 62177), (750, 62210), (800, 62318), (809, 62330), (850, 62414),

Gene: GRU1_42 Start: 35406, Stop: 32845, Start Num: 44
Candidate Starts for GRU1_42:
(17, 35532), (24, 35472), (Start: 44 @35406 has 44 MA's), (86, 35223), (88, 35214), (129, 35040), (146, 34950), (147, 34947), (178, 34821), (214, 34701), (225, 34662), (227, 34641), (228, 34638), (234, 34614), (245, 34563), (265, 34488), (298, 34365), (346, 34269), (442, 34062), (470, 33990), (479, 33972), (481, 33966), (484, 33957), (504, 33885), (555, 33705), (564, 33678), (599, 33522), (607, 33489), (609, 33486), (627, 33411), (631, 33384), (632, 33381), (633, 33378), (638, 33363), (646, 33333), (657, 33285), (666, 33264), (674, 33243), (680, 33225), (684, 33213), (687, 33204), (708, 33132), (716, 33114), (724, 33084), (726, 33069), (788, 32952), (811, 32898),

Gene: GTE5_44 Start: 36717, Stop: 34156, Start Num: 44
Candidate Starts for GTE5_44:
(24, 36783), (Start: 44 @36717 has 44 MA's), (86, 36534), (88, 36525), (129, 36351), (146, 36261), (178, 36132), (198, 36057), (214, 36012), (225, 35973), (227, 35952), (228, 35949), (245, 35874), (298, 35676), (346, 35580), (442, 35373), (470, 35301), (479, 35283), (481, 35277), (484, 35268), (504, 35196), (555, 35016), (564, 34989), (599, 34833), (609, 34797), (622, 34752), (627, 34722), (631, 34695), (632, 34692), (638, 34674), (646, 34644), (655, 34602), (657, 34596), (666, 34575), (708, 34443), (716, 34425), (724, 34395), (726, 34380), (788, 34263), (811, 34209),

Gene: GTE8_41 Start: 36385, Stop: 33836, Start Num: 44

Candidate Starts for GTE8_41:
(Start: 44 @36385 has 44 MA's), (63, 36313), (86, 36205), (92, 36184), (117, 36085), (138, 35977), (156, 35887), (187, 35797), (214, 35710), (225, 35671), (227, 35650), (228, 35647), (234, 35623), (262, 35506), (305, 35356), (309, 35344), (346, 35275), (382, 35185), (406, 35137), (442, 35068), (479, 34978), (481, 34972), (484, 34963), (504, 34891), (557, 34693), (577, 34597), (599, 34519), (601, 34510), (609, 34483), (622, 34438), (633, 34375), (638, 34360), (646, 34330), (657, 34282), (704, 34141), (726, 34066), (777, 33973), (783, 33955), (788, 33946), (802, 33910), (811, 33892),

Gene: Gagieri_52 Start: 40296, Stop: 37690, Start Num: 49
Candidate Starts for Gagieri_52:
(37, 40329), (Start: 49 @40296 has 6 MA's), (72, 40179), (86, 40116), (88, 40107), (93, 40089), (135, 39903), (137, 39891), (138, 39885), (198, 39642), (199, 39639), (214, 39597), (219, 39579), (227, 39537), (230, 39531), (233, 39513), (235, 39507), (252, 39435), (266, 39375), (310, 39228), (327, 39213), (339, 39186), (360, 39123), (365, 39114), (374, 39090), (463, 38898), (474, 38868), (481, 38850), (486, 38838), (504, 38769), (519, 38718), (523, 38703), (557, 38577), (567, 38535), (579, 38475), (586, 38448), (601, 38394), (604, 38382), (607, 38370), (622, 38322), (632, 38262), (633, 38259), (638, 38244), (666, 38145), (687, 38085), (741, 37917), (795, 37800), (805, 37776), (818, 37746), (820, 37743), (822, 37737), (825, 37731), (833, 37713),

Gene: Gallia_49 Start: 43669, Stop: 41024, Start Num: 27
Candidate Starts for Gallia_49:
(27, 43669), (71, 43486), (113, 43324), (130, 43219), (135, 43201), (137, 43189), (140, 43174), (144, 43153), (146, 43141), (155, 43099), (174, 43057), (213, 42868), (228, 42793), (271, 42625), (378, 42367), (391, 42334), (425, 42262), (457, 42208), (463, 42187), (482, 42136), (521, 42004), (528, 41980), (530, 41971), (557, 41866), (558, 41863), (564, 41848), (575, 41779), (588, 41728), (592, 41719), (602, 41683), (607, 41662), (609, 41659), (612, 41653), (643, 41521), (681, 41395), (693, 41350), (700, 41332), (752, 41194), (755, 41188),

Gene: Genamy16_89 Start: 58550, Stop: 61255, Start Num: 39
Candidate Starts for Genamy16_89:
(Start: 39 @58550 has 40 MA's), (62, 58640), (129, 58958), (190, 59246), (191, 59252), (193, 59258), (203, 59297), (227, 59384), (234, 59411), (239, 59444), (254, 59486), (255, 59489), (263, 59519), (279, 59585), (286, 59606), (287, 59609), (296, 59636), (358, 59783), (414, 59915), (455, 59990), (468, 60035), (480, 60059), (494, 60098), (501, 60134), (508, 60161), (520, 60206), (528, 60233), (529, 60236), (552, 60329), (563, 60371), (567, 60398), (587, 60491), (593, 60500), (597, 60503), (607, 60554), (629, 60647), (657, 60758), (667, 60779), (688, 60839), (693, 60866), (733, 60986), (750, 61019), (800, 61127), (809, 61139), (850, 61223), (852, 61226),

Gene: Gerri43_33 Start: 21717, Stop: 19513, Start Num: 136
Candidate Starts for Gerri43_33:
(Start: 136 @21717 has 11 MA's), (148, 21663), (284, 21114), (340, 20985), (343, 20970), (372, 20886), (408, 20802), (426, 20757), (440, 20739), (462, 20688), (468, 20667), (500, 20568), (524, 20478), (539, 20433), (556, 20358), (578, 20256), (592, 20208), (608, 20154), (624, 20088), (627, 20070), (652, 19968), (657, 19947), (690, 19854), (692, 19842), (713, 19788), (727, 19734), (746, 19695), (773, 19635), (779, 19620), (792, 19590),

Gene: Gibbin_90 Start: 60381, Stop: 63056, Start Num: 39
Candidate Starts for Gibbin_90:
(Start: 39 @60381 has 40 MA's), (143, 60858), (144, 60861), (168, 60942), (191, 61026), (210, 61086), (214, 61098), (221, 61122), (228, 61158), (271, 61332), (276, 61362), (350, 61542), (361, 61569), (397, 61662), (413, 61695), (423, 61698), (428, 61704), (454, 61743), (464, 61776), (489, 61839), (497, 61866), (501, 61893), (519, 61962), (520, 61965), (525, 61980), (543, 62046), (548, 62073), (567, 62163), (574, 62205), (578, 62220), (585, 62247), (601, 62295), (607, 62319), (616, 62337),

(622, 62367), (632, 62430), (653, 62508), (657, 62526), (667, 62550), (672, 62574), (675, 62586), (689, 62634), (693, 62652), (720, 62730), (733, 62772), (789, 62895), (800, 62922), (837, 63000),

Gene: Gimesa_91 Start: 65282, Stop: 68035, Start Num: 38
Candidate Starts for Gimesa_91:
(Start: 38 @65282 has 15 MA's), (Start: 41 @65288 has 9 MA's), (55, 65339), (58, 65351), (62, 65375), (132, 65732), (133, 65744), (141, 65795), (144, 65813), (146, 65825), (150, 65840), (168, 65909), (172, 65924), (178, 65951), (189, 65987), (191, 65996), (210, 66059), (214, 66071), (224, 66104), (234, 66158), (344, 66494), (365, 66539), (373, 66563), (374, 66566), (379, 66587), (383, 66596), (416, 66665), (448, 66737), (455, 66773), (461, 66785), (474, 66821), (486, 66851), (490, 66860), (494, 66872), (499, 66899), (511, 66944), (516, 66959), (520, 66980), (525, 66995), (548, 67061), (565, 67142), (567, 67160), (571, 67169), (572, 67175), (576, 67208), (577, 67211), (609, 67313), (610, 67316), (612, 67319), (627, 67385), (633, 67418), (647, 67472), (649, 67481), (656, 67508), (682, 67577), (687, 67595), (689, 67607), (696, 67631), (698, 67634), (717, 67688), (728, 67730), (757, 67787), (779, 67841), (826, 67943), (861, 68018),

Gene: Giuseppe_90 Start: 61236, Stop: 64178, Start Num: 40
Candidate Starts for Giuseppe_90:
(Start: 40 @61236 has 31 MA's), (79, 61419), (123, 61629), (134, 61674), (161, 61827), (182, 61914), (191, 61947), (196, 61968), (199, 61983), (214, 62031), (236, 62124), (241, 62160), (245, 62169), (267, 62244), (269, 62256), (280, 62307), (282, 62316), (321, 62460), (349, 62583), (357, 62607), (371, 62643), (383, 62679), (408, 62733), (410, 62739), (420, 62781), (437, 62817), (453, 62883), (494, 63000), (497, 63009), (510, 63069), (518, 63099), (534, 63147), (549, 63210), (553, 63231), (568, 63297), (585, 63378), (609, 63453), (618, 63483), (622, 63498), (627, 63528), (640, 63582), (653, 63636), (656, 63651), (657, 63654), (658, 63657), (671, 63696), (673, 63705), (687, 63735), (693, 63765), (709, 63810), (723, 63852), (727, 63876), (735, 63891), (754, 63930), (772, 63972), (776, 63981), (796, 64029), (857, 64155), (858, 64161),

Gene: GretelLyn_88 Start: 60113, Stop: 62884, Start Num: 39
Candidate Starts for GretelLyn_88:
(Start: 39 @60113 has 40 MA's), (62, 60203), (129, 60521), (152, 60686), (190, 60809), (191, 60815), (193, 60821), (203, 60860), (217, 60899), (224, 60920), (227, 60947), (234, 60974), (239, 61007), (254, 61049), (255, 61052), (263, 61082), (279, 61148), (286, 61169), (287, 61172), (296, 61199), (318, 61253), (341, 61322), (366, 61394), (386, 61454), (397, 61478), (414, 61511), (449, 61583), (498, 61751), (511, 61799), (512, 61802), (521, 61838), (546, 61919), (567, 62024), (574, 62066), (581, 62090), (584, 62105), (604, 62165), (609, 62180), (610, 62183), (619, 62213), (633, 62285), (658, 62384), (672, 62426), (686, 62459), (689, 62474), (700, 62510), (709, 62537), (714, 62552), (720, 62570), (725, 62591), (733, 62612), (790, 62735), (800, 62756), (823, 62792), (825, 62795),

Gene: GrootJr_54 Start: 42506, Stop: 39957, Start Num: 44
Candidate Starts for GrootJr_54:
(Start: 44 @42506 has 44 MA's), (63, 42434), (86, 42326), (117, 42200), (156, 42002), (169, 41975), (187, 41912), (197, 41879), (214, 41825), (225, 41786), (227, 41765), (228, 41762), (262, 41621), (305, 41471), (309, 41459), (346, 41390), (382, 41300), (406, 41252), (417, 41225), (442, 41183), (479, 41093), (481, 41087), (484, 41078), (514, 40970), (557, 40808), (577, 40712), (599, 40634), (601, 40625), (609, 40598), (627, 40523), (638, 40475), (646, 40445), (657, 40397), (684, 40325), (687, 40316), (704, 40256), (706, 40250), (708, 40244), (726, 40181), (777, 40088), (783, 40070), (788, 40061), (802, 40025), (820, 39992),

Gene: Gumball_88 Start: 61448, Stop: 64381, Start Num: 40
Candidate Starts for Gumball_88:
(Start: 40 @61448 has 31 MA's), (79, 61631), (123, 61841), (134, 61886), (161, 62039), (182, 62126), (191, 62159), (196, 62180), (199, 62195), (202, 62204), (214, 62243), (236, 62336), (241, 62372),

(245, 62381), (267, 62456), (269, 62468), (280, 62519), (282, 62528), (321, 62672), (349, 62795), (357, 62819), (371, 62855), (383, 62891), (408, 62945), (410, 62951), (420, 62993), (437, 63029), (453, 63095), (494, 63203), (497, 63212), (505, 63254), (510, 63272), (518, 63302), (534, 63350), (549, 63413), (553, 63434), (568, 63500), (585, 63581), (609, 63656), (618, 63686), (622, 63701), (627, 63731), (640, 63785), (653, 63839), (656, 63854), (657, 63857), (658, 63860), (671, 63899), (673, 63908), (687, 63938), (693, 63968), (709, 64013), (723, 64055), (727, 64079), (735, 64094), (754, 64133), (772, 64175), (776, 64184), (796, 64232), (857, 64358), (858, 64364),

Gene: Hawkeye_102 Start: 63837, Stop: 66758, Start Num: 40
Candidate Starts for Hawkeye_102:
(30, 63810), (Start: 40 @63837 has 31 MA's), (Start: 78 @64014 has 2 MA's), (79, 64020), (99, 64095), (109, 64128), (161, 64425), (178, 64497), (182, 64512), (191, 64542), (196, 64563), (199, 64578), (213, 64614), (214, 64626), (267, 64839), (338, 65163), (347, 65208), (349, 65211), (371, 65271), (454, 65514), (508, 65637), (567, 65868), (568, 65871), (610, 66030), (619, 66060), (622, 66072), (633, 66135), (653, 66210), (671, 66270), (687, 66306), (717, 66405), (738, 66468), (825, 66663), (845, 66702), (847, 66708),

Gene: Helpful_91 Start: 61435, Stop: 64368, Start Num: 40
Candidate Starts for Helpful_91:
(Start: 40 @61435 has 31 MA's), (79, 61618), (123, 61828), (134, 61873), (161, 62026), (182, 62113), (191, 62146), (193, 62152), (196, 62167), (199, 62182), (214, 62230), (236, 62323), (241, 62359), (245, 62368), (267, 62443), (269, 62455), (280, 62506), (282, 62515), (321, 62659), (349, 62782), (357, 62806), (371, 62842), (383, 62878), (408, 62932), (410, 62938), (420, 62980), (437, 63016), (453, 63082), (494, 63190), (497, 63199), (505, 63241), (510, 63259), (534, 63337), (549, 63400), (553, 63421), (568, 63487), (585, 63568), (609, 63643), (618, 63673), (622, 63688), (627, 63718), (640, 63772), (653, 63826), (656, 63841), (657, 63844), (658, 63847), (671, 63886), (673, 63895), (687, 63925), (693, 63955), (700, 63973), (709, 64000), (723, 64042), (727, 64066), (735, 64081), (754, 64120), (772, 64162), (776, 64171), (796, 64219), (857, 64345), (858, 64351),

Gene: HomeFry_57 Start: 40979, Stop: 38445, Start Num: 44
Candidate Starts for HomeFry_57:
(Start: 44 @40979 has 44 MA's), (63, 40904), (86, 40796), (156, 40475), (168, 40457), (172, 40442), (187, 40385), (214, 40298), (225, 40259), (228, 40235), (236, 40205), (245, 40160), (247, 40151), (265, 40085), (346, 39866), (442, 39659), (470, 39587), (479, 39569), (498, 39506), (564, 39269), (587, 39152), (599, 39113), (609, 39077), (622, 39032), (638, 38954), (646, 38924), (653, 38894), (658, 38873), (680, 38816), (704, 38735), (710, 38720), (747, 38627), (752, 38618), (764, 38588), (777, 38567), (788, 38540), (800, 38510),

Gene: HubbaBubba_49 Start: 38673, Stop: 36124, Start Num: 44
Candidate Starts for HubbaBubba_49:
(Start: 44 @38673 has 44 MA's), (63, 38595), (86, 38487), (116, 38370), (214, 37989), (225, 37950), (252, 37827), (305, 37635), (310, 37620), (346, 37554), (479, 37257), (481, 37251), (504, 37170), (528, 37086), (555, 36981), (557, 36972), (587, 36837), (599, 36798), (607, 36765), (609, 36762), (622, 36717), (632, 36657), (633, 36654), (638, 36639), (646, 36609), (656, 36564), (657, 36561), (670, 36525), (691, 36456), (697, 36441), (704, 36420), (724, 36360), (726, 36345), (775, 36255), (788, 36225),

Gene: IDyn_53 Start: 40105, Stop: 37556, Start Num: 44
Candidate Starts for IDyn_53:
(31, 40150), (Start: 44 @40105 has 44 MA's), (63, 40027), (86, 39919), (92, 39895), (116, 39802), (214, 39421), (225, 39382), (252, 39259), (305, 39067), (310, 39052), (346, 38986), (479, 38689), (481, 38683), (504, 38602), (555, 38413), (557, 38404), (587, 38269), (599, 38230), (607, 38197), (609, 38194), (622, 38149), (632, 38089), (633, 38086), (638, 38071), (646, 38041), (656, 37996),

(657, 37993), (670, 37957), (691, 37888), (697, 37873), (704, 37852), (724, 37792), (726, 37777), (751, 37738), (775, 37687), (788, 37657),

Gene: Indlulamithi_95 Start: 62047, Stop: 64761, Start Num: 38
Candidate Starts for Indlulamithi_95:
(Start: 38 @62047 has 15 MA's), (Start: 41 @62053 has 9 MA's), (62, 62140), (111, 62362), (213, 62800), (214, 62812), (260, 63004), (263, 63007), (289, 63118), (352, 63262), (414, 63406), (420, 63430), (465, 63541), (468, 63553), (479, 63577), (485, 63592), (496, 63619), (500, 63643), (521, 63724), (558, 63841), (571, 63892), (574, 63922), (656, 64240), (657, 64243), (679, 64303), (690, 64342), (695, 64363), (778, 64579), (796, 64621),

Gene: Isperia_45 Start: 31317, Stop: 28753, Start Num: 101
Candidate Starts for Isperia_45:
(65, 31488), (Start: 78 @31404 has 2 MA's), (82, 31380), (84, 31368), (85, 31365), (90, 31359), (91, 31353), (Start: 101 @31317 has 2 MA's), (124, 31161), (196, 30873), (201, 30852), (246, 30675), (257, 30639), (260, 30624), (300, 30480), (387, 30243), (409, 30201), (442, 30132), (465, 30081), (495, 30000), (506, 29952), (525, 29889), (532, 29871), (547, 29823), (550, 29808), (553, 29784), (566, 29733), (568, 29727), (598, 29625), (603, 29592), (606, 29583), (629, 29478), (659, 29367), (723, 29181), (753, 29106), (760, 29091), (814, 28968), (815, 28962), (825, 28941), (865, 28848), (870, 28770),

Gene: Jalebi_88 Start: 61026, Stop: 63749, Start Num: 39
Candidate Starts for Jalebi_88:
(Start: 39 @61026 has 40 MA's), (86, 61254), (113, 61326), (168, 61581), (174, 61599), (177, 61614), (182, 61638), (190, 61659), (196, 61686), (210, 61725), (214, 61737), (234, 61821), (235, 61824), (296, 62079), (345, 62214), (348, 62220), (419, 62400), (468, 62529), (506, 62649), (555, 62838), (557, 62847), (558, 62850), (563, 62862), (567, 62889), (573, 62928), (575, 62934), (578, 62946), (581, 62955), (587, 62982), (602, 63024), (619, 63081), (622, 63093), (647, 63210), (689, 63339), (717, 63426), (733, 63477), (789, 63588), (800, 63615), (810, 63636), (836, 63687),

Gene: Jamemuya19_84 Start: 58176, Stop: 60947, Start Num: 39
Candidate Starts for Jamemuya19_84:
(Start: 39 @58176 has 40 MA's), (62, 58266), (129, 58584), (190, 58872), (191, 58878), (193, 58884), (203, 58923), (227, 59010), (234, 59037), (239, 59070), (254, 59112), (255, 59115), (263, 59145), (279, 59211), (286, 59232), (287, 59235), (296, 59262), (318, 59316), (341, 59385), (366, 59457), (386, 59517), (397, 59541), (414, 59574), (449, 59646), (498, 59814), (500, 59820), (511, 59862), (521, 59901), (546, 59982), (567, 60087), (574, 60129), (581, 60153), (584, 60168), (604, 60228), (609, 60243), (610, 60246), (619, 60276), (633, 60348), (641, 60375), (653, 60426), (658, 60447), (672, 60489), (686, 60522), (689, 60537), (709, 60600), (720, 60633), (733, 60675), (790, 60798), (800, 60819), (823, 60855), (825, 60858),

Gene: Jifall16_51 Start: 42778, Stop: 40229, Start Num: 44
Candidate Starts for Jifall16_51:
(Start: 44 @42778 has 44 MA's), (63, 42706), (86, 42598), (117, 42472), (156, 42274), (169, 42247), (187, 42184), (197, 42151), (214, 42097), (225, 42058), (227, 42037), (228, 42034), (262, 41893), (305, 41743), (309, 41731), (346, 41662), (382, 41572), (406, 41524), (417, 41497), (423, 41482), (442, 41455), (479, 41365), (481, 41359), (484, 41350), (514, 41242), (557, 41080), (577, 40984), (599, 40906), (601, 40897), (609, 40870), (627, 40795), (638, 40747), (646, 40717), (657, 40669), (684, 40597), (687, 40588), (704, 40528), (706, 40522), (708, 40516), (726, 40453), (777, 40360), (783, 40342), (788, 40333), (802, 40297), (820, 40264),

Gene: Kabluna_56 Start: 42217, Stop: 39647, Start Num: 44
Candidate Starts for Kabluna_56:

(Start: 44 @42217 has 44 MA's), (86, 42037), (147, 41755), (168, 41668), (172, 41653), (178, 41626), (214, 41509), (225, 41470), (228, 41446), (245, 41371), (277, 41233), (305, 41158), (307, 41155), (345, 41080), (346, 41077), (382, 40987), (406, 40939), (422, 40900), (454, 40852), (462, 40825), (479, 40780), (481, 40774), (504, 40693), (515, 40654), (535, 40588), (564, 40477), (587, 40360), (591, 40351), (599, 40321), (601, 40312), (609, 40285), (622, 40240), (627, 40210), (631, 40183), (632, 40180), (633, 40177), (638, 40162), (646, 40132), (657, 40084), (670, 40048), (684, 40012), (687, 40003), (697, 39964), (704, 39943), (708, 39931), (726, 39868), (744, 39838), (788, 39748), (795, 39730),

Gene: KandZ_86 Start: 61258, Stop: 64194, Start Num: 40
Candidate Starts for KandZ_86:
(Start: 40 @61258 has 31 MA's), (79, 61441), (123, 61651), (134, 61696), (161, 61849), (182, 61936), (191, 61969), (193, 61975), (196, 61990), (199, 62005), (214, 62053), (236, 62146), (241, 62182), (245, 62191), (267, 62266), (269, 62278), (280, 62329), (282, 62338), (321, 62482), (349, 62605), (357, 62629), (371, 62665), (383, 62701), (408, 62755), (410, 62761), (420, 62803), (437, 62839), (453, 62905), (494, 63013), (497, 63022), (505, 63064), (510, 63082), (534, 63160), (549, 63223), (553, 63244), (568, 63310), (585, 63391), (609, 63466), (618, 63496), (622, 63511), (627, 63541), (640, 63595), (653, 63649), (656, 63664), (657, 63667), (658, 63670), (671, 63709), (673, 63718), (687, 63748), (693, 63778), (709, 63823), (723, 63865), (727, 63889), (735, 63904), (754, 63943), (765, 63970), (772, 63985), (776, 63994), (778, 64000), (796, 64042), (808, 64069), (822, 64099), (832, 64117), (854, 64165), (858, 64174),

Gene: KidneyBean_52 Start: 42902, Stop: 40353, Start Num: 44
Candidate Starts for KidneyBean_52:
(Start: 44 @42902 has 44 MA's), (63, 42830), (86, 42722), (117, 42596), (156, 42398), (169, 42371), (187, 42308), (197, 42275), (214, 42221), (225, 42182), (227, 42161), (228, 42158), (262, 42017), (305, 41867), (309, 41855), (346, 41786), (382, 41696), (406, 41648), (417, 41621), (423, 41606), (442, 41579), (479, 41489), (481, 41483), (484, 41474), (514, 41366), (557, 41204), (577, 41108), (599, 41030), (601, 41021), (609, 40994), (627, 40919), (638, 40871), (646, 40841), (657, 40793), (684, 40721), (687, 40712), (704, 40652), (706, 40646), (708, 40640), (726, 40577), (777, 40484), (783, 40466), (788, 40457), (802, 40421), (820, 40388),

Gene: Kimchi1738_38 Start: 36253, Stop: 33710, Start Num: 52
Candidate Starts for Kimchi1738_38:
(32, 36310), (51, 36256), (Start: 52 @36253 has 8 MA's), (68, 36172), (69, 36163), (72, 36142), (86, 36076), (104, 36052), (110, 36010), (114, 35989), (122, 35932), (138, 35851), (139, 35848), (149, 35806), (172, 35734), (213, 35569), (214, 35557), (228, 35494), (235, 35467), (250, 35404), (287, 35254), (298, 35224), (346, 35146), (391, 35032), (404, 35008), (431, 34954), (460, 34897), (463, 34888), (486, 34828), (491, 34816), (503, 34762), (516, 34717), (518, 34702), (521, 34693), (528, 34669), (530, 34660), (535, 34648), (566, 34516), (570, 34504), (577, 34459), (586, 34426), (604, 34363), (607, 34351), (619, 34315), (693, 34033), (712, 33979), (747, 33892), (763, 33856), (769, 33844), (787, 33802), (817, 33742),

Gene: Konstantine_94 Start: 65170, Stop: 68157, Start Num: 38
Candidate Starts for Konstantine_94:
(13, 65071), (18, 65095), (21, 65110), (22, 65116), (Start: 29 @65143 has 1 MA's), (Start: 36 @65164 has 2 MA's), (Start: 38 @65170 has 15 MA's), (54, 65224), (61, 65260), (86, 65395), (115, 65584), (167, 65845), (182, 65911), (191, 65941), (205, 66001), (211, 66031), (214, 66058), (255, 66223), (275, 66310), (284, 66343), (285, 66364), (287, 66370), (294, 66397), (306, 66427), (312, 66445), (315, 66451), (331, 66541), (341, 66580), (444, 66850), (476, 66949), (506, 67054), (508, 67060), (513, 67075), (533, 67144), (539, 67168), (548, 67189), (556, 67234), (569, 67285), (574, 67321), (584, 67360), (607, 67432), (609, 67435), (610, 67438), (622, 67480), (631, 67540), (633, 67546), (634, 67555), (646, 67591), (657, 67639), (662, 67654), (679, 67699), (687, 67723), (720, 67825),

(728, 67858), (759, 67921), (761, 67927), (781, 67972), (785, 67978), (810, 68032), (821, 68053), (846, 68107),

Gene: Kurt_52 Start: 43139, Stop: 40590, Start Num: 44
Candidate Starts for Kurt_52:
(Start: 44 @43139 has 44 MA's), (63, 43067), (86, 42959), (117, 42833), (156, 42635), (169, 42608), (187, 42545), (197, 42512), (214, 42458), (225, 42419), (227, 42398), (228, 42395), (262, 42254), (305, 42104), (309, 42092), (346, 42023), (382, 41933), (406, 41885), (417, 41858), (423, 41843), (442, 41816), (479, 41726), (481, 41720), (484, 41711), (514, 41603), (557, 41441), (577, 41345), (599, 41267), (601, 41258), (609, 41231), (627, 41156), (638, 41108), (646, 41078), (657, 41030), (684, 40958), (687, 40949), (704, 40889), (706, 40883), (708, 40877), (726, 40814), (777, 40721), (783, 40703), (788, 40694), (802, 40658), (820, 40625),

Gene: Labelle_108 Start: 66613, Stop: 69327, Start Num: 42
Candidate Starts for Labelle_108:
(Start: 42 @66613 has 4 MA's), (46, 66628), (48, 66631), (62, 66694), (63, 66706), (71, 66742), (159, 67159), (167, 67174), (172, 67198), (182, 67240), (183, 67246), (191, 67270), (214, 67351), (222, 67378), (247, 67498), (258, 67537), (271, 67591), (287, 67663), (298, 67693), (301, 67699), (323, 67741), (332, 67756), (338, 67765), (350, 67816), (353, 67828), (362, 67846), (373, 67873), (406, 67951), (444, 68050), (451, 68071), (454, 68083), (494, 68185), (500, 68215), (505, 68236), (513, 68266), (518, 68290), (553, 68389), (558, 68413), (563, 68425), (574, 68494), (657, 68812), (674, 68860), (683, 68875), (685, 68884), (687, 68890), (688, 68893), (693, 68920), (699, 68932), (702, 68941), (717, 68983), (734, 69034), (755, 69076), (766, 69103), (792, 69160), (824, 69229), (838, 69262), (842, 69268), (850, 69286),

Gene: Lambo_88 Start: 60143, Stop: 62848, Start Num: 39
Candidate Starts for Lambo_88:
(Start: 39 @60143 has 40 MA's), (62, 60233), (112, 60461), (129, 60551), (190, 60839), (191, 60845), (193, 60851), (203, 60890), (227, 60977), (234, 61004), (239, 61037), (254, 61079), (255, 61082), (263, 61112), (279, 61178), (286, 61199), (287, 61202), (296, 61229), (358, 61376), (414, 61508), (455, 61583), (468, 61628), (480, 61652), (494, 61691), (501, 61727), (505, 61742), (508, 61754), (520, 61799), (528, 61826), (529, 61829), (552, 61922), (563, 61964), (567, 61991), (582, 62066), (587, 62084), (593, 62093), (597, 62096), (607, 62147), (629, 62240), (657, 62351), (667, 62372), (688, 62432), (693, 62459), (700, 62477), (718, 62531), (733, 62579), (750, 62612), (800, 62720), (809, 62732), (850, 62816), (852, 62819),

Gene: LastNadiia_35 Start: 24087, Stop: 21901, Start Num: 136
Candidate Starts for LastNadiia_35:
(Start: 136 @24087 has 11 MA's), (208, 23772), (209, 23769), (248, 23628), (340, 23361), (408, 23190), (426, 23145), (455, 23100), (462, 23076), (500, 22956), (517, 22899), (529, 22857), (556, 22746), (578, 22644), (592, 22596), (623, 22485), (624, 22476), (627, 22458), (652, 22356), (662, 22320), (679, 22281), (692, 22230), (713, 22176), (727, 22122), (732, 22116), (746, 22083), (773, 22023), (779, 22008), (792, 21978),

Gene: LavAbarElk_88 Start: 59199, Stop: 61904, Start Num: 39
Candidate Starts for LavAbarElk_88:
(Start: 39 @59199 has 40 MA's), (62, 59289), (112, 59517), (129, 59607), (190, 59895), (191, 59901), (193, 59907), (203, 59946), (227, 60033), (234, 60060), (239, 60093), (254, 60135), (255, 60138), (263, 60168), (279, 60234), (286, 60255), (287, 60258), (296, 60285), (358, 60432), (414, 60564), (455, 60639), (468, 60684), (480, 60708), (494, 60747), (508, 60810), (520, 60855), (528, 60882), (529, 60885), (552, 60978), (563, 61020), (567, 61047), (587, 61140), (593, 61149), (597, 61152), (607, 61203), (629, 61296), (657, 61407), (667, 61428), (688, 61488), (693, 61515), (700, 61533), (718, 61587), (733, 61635), (750, 61668), (800, 61776), (809, 61788), (850, 61872),

Gene: Leopard_106 Start: 68398, Stop: 71190, Start Num: 45
Candidate Starts for Leopard_106:
(Start: 34 @68359 has 1 MA's), (Start: 45 @68398 has 2 MA's), (59, 68443), (86, 68590), (104, 68674), (129, 68830), (134, 68851), (142, 68902), (150, 68941), (156, 68992), (193, 69124), (197, 69142), (199, 69151), (210, 69178), (214, 69190), (217, 69202), (224, 69223), (234, 69277), (263, 69385), (264, 69388), (274, 69439), (275, 69442), (303, 69544), (325, 69586), (400, 69754), (491, 69961), (499, 69997), (501, 70006), (525, 70093), (534, 70120), (548, 70171), (557, 70219), (558, 70222), (562, 70231), (574, 70303), (581, 70327), (587, 70354), (601, 70390), (604, 70402), (612, 70423), (615, 70432), (626, 70498), (656, 70624), (657, 70627), (658, 70630), (660, 70636), (720, 70819), (725, 70840), (727, 70852), (744, 70891), (803, 71023), (816, 71050), (829, 71077), (849, 71122), (851, 71128), (856, 71134), (867, 71173),

Gene: Lila22_89 Start: 60501, Stop: 63272, Start Num: 39
Candidate Starts for Lila22_89:
(Start: 39 @60501 has 40 MA's), (62, 60591), (129, 60909), (152, 61074), (190, 61197), (191, 61203), (193, 61209), (203, 61248), (217, 61287), (224, 61308), (227, 61335), (234, 61362), (239, 61395), (254, 61437), (255, 61440), (263, 61470), (279, 61536), (286, 61557), (287, 61560), (296, 61587), (318, 61641), (341, 61710), (366, 61782), (386, 61842), (397, 61866), (414, 61899), (449, 61971), (498, 62139), (511, 62187), (512, 62190), (521, 62226), (546, 62307), (567, 62412), (574, 62454), (581, 62478), (584, 62493), (604, 62553), (609, 62568), (610, 62571), (619, 62601), (633, 62673), (658, 62772), (672, 62814), (686, 62847), (689, 62862), (700, 62898), (709, 62925), (714, 62940), (720, 62958), (725, 62979), (733, 63000), (790, 63123), (800, 63144), (823, 63180), (825, 63183),

Gene: LilyPad_80 Start: 55864, Stop: 58713, Start Num: 40
Candidate Starts for LilyPad_80:
(Start: 40 @55864 has 31 MA's), (60, 55936), (86, 56083), (88, 56092), (90, 56098), (143, 56395), (144, 56398), (151, 56434), (155, 56467), (164, 56494), (225, 56698), (259, 56821), (283, 56914), (288, 56941), (299, 56986), (320, 57052), (337, 57133), (359, 57208), (384, 57277), (392, 57295), (406, 57322), (418, 57370), (430, 57391), (433, 57394), (458, 57493), (464, 57514), (490, 57580), (497, 57601), (533, 57739), (538, 57760), (555, 57832), (574, 57925), (577, 57937), (578, 57940), (589, 57976), (607, 58036), (622, 58084), (624, 58096), (642, 58174), (653, 58222), (655, 58234), (666, 58261), (687, 58315), (689, 58327), (690, 58330), (693, 58345), (731, 58423), (745, 58456), (772, 58501), (782, 58528), (792, 58549), (825, 58618), (837, 58645), (841, 58651), (857, 58681),

Gene: LittleFella_81 Start: 56231, Stop: 59035, Start Num: 38
Candidate Starts for LittleFella_81:
(Start: 38 @56231 has 15 MA's), (55, 56288), (86, 56456), (88, 56465), (100, 56513), (106, 56543), (107, 56555), (143, 56771), (144, 56774), (157, 56852), (160, 56858), (163, 56867), (175, 56906), (200, 56996), (218, 57053), (242, 57161), (253, 57191), (259, 57215), (265, 57227), (283, 57308), (289, 57338), (290, 57350), (295, 57368), (317, 57401), (320, 57422), (322, 57467), (324, 57476), (394, 57662), (412, 57701), (454, 57818), (462, 57845), (501, 57965), (518, 58031), (519, 58034), (528, 58061), (546, 58115), (553, 58154), (554, 58160), (558, 58178), (560, 58184), (577, 58271), (578, 58274), (589, 58313), (609, 58376), (610, 58379), (627, 58451), (630, 58472), (641, 58508), (642, 58511), (685, 58643), (689, 58661), (693, 58679), (715, 58718), (723, 58727), (745, 58784), (763, 58811), (772, 58829), (808, 58904), (862, 59015),

Gene: Lollipop1437_58 Start: 44135, Stop: 41574, Start Num: 44
Candidate Starts for Lollipop1437_58:
(24, 44201), (Start: 44 @44135 has 44 MA's), (56, 44108), (63, 44060), (86, 43952), (178, 43547), (187, 43517), (198, 43472), (214, 43427), (225, 43388), (227, 43367), (228, 43364), (234, 43340), (245, 43289), (268, 43196), (277, 43151), (278, 43148), (298, 43091), (346, 42995), (470, 42716), (479, 42698), (481, 42692), (484, 42683), (504, 42611), (555, 42431), (564, 42404), (599, 42248),

(607, 42215), (622, 42167), (631, 42110), (632, 42107), (638, 42089), (646, 42059), (657, 42011), (666, 41990), (674, 41969), (687, 41930), (708, 41858), (716, 41840), (725, 41804), (726, 41795), (752, 41753), (788, 41678), (802, 41642), (811, 41624),

Gene: LuckyLeo_86 Start: 59800, Stop: 62529, Start Num: 39
Candidate Starts for LuckyLeo_86:
(Start: 39 @59800 has 40 MA's), (62, 59890), (66, 59914), (89, 60037), (138, 60286), (139, 60289), (190, 60496), (191, 60502), (193, 60508), (197, 60526), (203, 60547), (217, 60586), (224, 60607), (227, 60634), (254, 60736), (263, 60769), (279, 60835), (287, 60859), (296, 60886), (350, 61015), (397, 61135), (413, 61168), (428, 61177), (501, 61366), (519, 61435), (520, 61438), (540, 61513), (567, 61636), (574, 61678), (578, 61693), (585, 61720), (601, 61768), (607, 61792), (609, 61795), (616, 61810), (622, 61840), (623, 61843), (632, 61903), (634, 61915), (657, 61999), (667, 62023), (672, 62047), (675, 62059), (678, 62068), (692, 62122), (693, 62125), (711, 62176), (720, 62203), (733, 62245), (800, 62395), (819, 62431), (837, 62473),

Gene: MacGully_60 Start: 42358, Stop: 39776, Start Num: 47
Candidate Starts for MacGully_60:
(1, 42739), (6, 42580), (17, 42496), (Start: 47 @42358 has 1 MA's), (72, 42238), (80, 42202), (86, 42175), (94, 42145), (129, 41992), (137, 41950), (146, 41902), (147, 41899), (168, 41824), (198, 41701), (214, 41656), (227, 41596), (235, 41566), (256, 41482), (327, 41272), (330, 41266), (346, 41221), (385, 41131), (406, 41092), (431, 41041), (460, 40981), (463, 40972), (486, 40912), (501, 40855), (505, 40840), (528, 40765), (555, 40660), (557, 40651), (567, 40609), (568, 40606), (574, 40567), (577, 40555), (579, 40549), (601, 40468), (604, 40456), (607, 40444), (622, 40396), (632, 40336), (638, 40318), (657, 40240), (670, 40204), (684, 40168), (687, 40159), (741, 39994), (769, 39940), (775, 39925), (802, 39859), (818, 39823), (820, 39820), (832, 39793),

Gene: Madi_82 Start: 56748, Stop: 59609, Start Num: 40
Candidate Starts for Madi_82:
(Start: 40 @56748 has 31 MA's), (60, 56820), (86, 56967), (113, 57144), (143, 57303), (144, 57306), (151, 57342), (155, 57375), (175, 57438), (185, 57474), (225, 57597), (259, 57720), (270, 57756), (283, 57813), (288, 57840), (292, 57858), (299, 57885), (320, 57939), (415, 58233), (418, 58251), (430, 58272), (445, 58311), (447, 58326), (459, 58380), (462, 58389), (492, 58467), (501, 58509), (525, 58596), (526, 58599), (544, 58653), (558, 58725), (560, 58731), (574, 58806), (578, 58821), (607, 58917), (622, 58968), (627, 58998), (628, 59010), (640, 59052), (643, 59061), (649, 59094), (653, 59106), (663, 59139), (665, 59142), (679, 59184), (680, 59187), (690, 59223), (727, 59310), (740, 59334), (742, 59343), (808, 59475), (845, 59556), (857, 59580),

Gene: Madruga_106 Start: 66185, Stop: 68893, Start Num: 42
Candidate Starts for Madruga_106:
(Start: 42 @66185 has 4 MA's), (46, 66200), (48, 66203), (62, 66266), (63, 66278), (71, 66314), (159, 66731), (167, 66746), (172, 66770), (182, 66812), (183, 66818), (191, 66842), (214, 66923), (222, 66950), (247, 67070), (258, 67109), (287, 67235), (298, 67265), (301, 67271), (323, 67313), (332, 67328), (338, 67337), (350, 67388), (353, 67400), (362, 67418), (373, 67445), (406, 67523), (450, 67631), (466, 67679), (494, 67751), (500, 67781), (505, 67802), (513, 67832), (536, 67907), (553, 67955), (558, 67979), (563, 67991), (574, 68060), (657, 68378), (674, 68426), (683, 68441), (685, 68450), (687, 68456), (688, 68459), (693, 68486), (699, 68498), (702, 68507), (717, 68549), (724, 68573), (734, 68600), (755, 68642), (758, 68648), (784, 68711), (792, 68726), (796, 68735), (842, 68834), (864, 68885),

Gene: Makima_33 Start: 23197, Stop: 21011, Start Num: 136
Candidate Starts for Makima_33:
(Start: 136 @23197 has 11 MA's), (148, 23143), (165, 23071), (170, 23044), (229, 22807), (233, 22789), (240, 22762), (263, 22684), (277, 22615), (338, 22486), (367, 22384), (408, 22300), (429,

22252), (444, 22228), (453, 22216), (458, 22201), (500, 22066), (516, 22015), (524, 21976), (529, 21967), (556, 21856), (578, 21754), (592, 21706), (627, 21568), (651, 21469), (652, 21466), (657, 21445), (662, 21430), (692, 21340), (746, 21193), (779, 21118), (792, 21088), (804, 21058),

Gene: Marietta_54 Start: 39999, Stop: 37450, Start Num: 44
Candidate Starts for Marietta_54:
(Start: 44 @39999 has 44 MA's), (63, 39921), (86, 39813), (92, 39789), (116, 39696), (214, 39315), (225, 39276), (252, 39153), (305, 38961), (310, 38946), (346, 38880), (479, 38583), (481, 38577), (504, 38496), (555, 38307), (557, 38298), (587, 38163), (599, 38124), (607, 38091), (609, 38088), (622, 38043), (632, 37983), (633, 37980), (638, 37965), (646, 37935), (656, 37890), (657, 37887), (670, 37851), (691, 37782), (697, 37767), (704, 37746), (724, 37686), (726, 37671), (751, 37632), (775, 37581), (788, 37551),

Gene: Maselop_53 Start: 40135, Stop: 37535, Start Num: 49
Candidate Starts for Maselop_53:
(Start: 49 @40135 has 6 MA's), (72, 40018), (86, 39955), (88, 39946), (93, 39928), (135, 39742), (137, 39730), (138, 39724), (198, 39481), (214, 39436), (219, 39418), (227, 39376), (230, 39370), (233, 39352), (235, 39346), (252, 39274), (266, 39214), (310, 39067), (327, 39052), (329, 39049), (342, 39010), (360, 38968), (365, 38959), (374, 38935), (455, 38770), (481, 38695), (486, 38683), (504, 38614), (519, 38563), (539, 38497), (557, 38422), (567, 38380), (579, 38320), (586, 38293), (601, 38239), (604, 38227), (607, 38215), (622, 38167), (632, 38107), (633, 38104), (638, 38089), (666, 37990), (687, 37930), (741, 37762), (795, 37645), (805, 37621), (818, 37591), (820, 37588), (825, 37576), (833, 37558),

Gene: Megatron06_93 Start: 65379, Stop: 68324, Start Num: 38
Candidate Starts for Megatron06_93:
(9, 65241), (11, 65265), (12, 65271), (15, 65289), (20, 65307), (22, 65325), (Start: 29 @65352 has 1 MA's), (Start: 36 @65373 has 2 MA's), (Start: 38 @65379 has 15 MA's), (54, 65433), (61, 65469), (86, 65604), (115, 65742), (167, 66003), (182, 66069), (191, 66099), (211, 66189), (214, 66216), (255, 66381), (275, 66468), (284, 66501), (285, 66522), (287, 66528), (294, 66555), (306, 66585), (312, 66603), (315, 66609), (331, 66699), (341, 66738), (444, 67008), (476, 67107), (506, 67212), (508, 67218), (513, 67233), (533, 67302), (539, 67326), (548, 67347), (556, 67392), (569, 67443), (574, 67479), (584, 67518), (607, 67590), (610, 67596), (622, 67638), (626, 67668), (631, 67698), (633, 67704), (634, 67713), (642, 67731), (643, 67734), (646, 67749), (657, 67797), (662, 67812), (679, 67857), (687, 67881), (724, 67998), (730, 68019), (743, 68049), (771, 68103), (806, 68178), (810, 68187), (840, 68250),

Gene: MerCougar_54 Start: 43419, Stop: 40849, Start Num: 44
Candidate Starts for MerCougar_54:
(22, 43494), (24, 43485), (Start: 44 @43419 has 44 MA's), (86, 43239), (172, 42855), (178, 42828), (214, 42711), (225, 42672), (228, 42648), (277, 42435), (305, 42360), (307, 42357), (345, 42282), (346, 42279), (382, 42189), (406, 42141), (454, 42054), (455, 42051), (462, 42027), (479, 41982), (481, 41976), (484, 41967), (504, 41895), (515, 41856), (535, 41790), (564, 41679), (587, 41562), (591, 41553), (599, 41523), (601, 41514), (609, 41487), (622, 41442), (627, 41412), (631, 41385), (632, 41382), (633, 41379), (638, 41364), (646, 41334), (657, 41286), (684, 41214), (687, 41205), (697, 41166), (704, 41145), (708, 41133), (726, 41070), (744, 41040), (752, 41028), (788, 40950), (795, 40932),

Gene: Mima20_87 Start: 59812, Stop: 62517, Start Num: 39
Candidate Starts for Mima20_87:
(Start: 39 @59812 has 40 MA's), (62, 59902), (129, 60220), (152, 60385), (190, 60508), (191, 60514), (193, 60520), (203, 60559), (227, 60646), (234, 60673), (239, 60706), (254, 60748), (255, 60751), (263, 60781), (279, 60847), (286, 60868), (287, 60871), (296, 60898), (358, 61045), (414, 61177),

(455, 61252), (468, 61297), (480, 61321), (494, 61360), (505, 61411), (508, 61423), (520, 61468), (528, 61495), (529, 61498), (552, 61591), (563, 61633), (567, 61660), (587, 61753), (593, 61762), (597, 61765), (607, 61816), (629, 61909), (657, 62020), (667, 62041), (688, 62101), (693, 62128), (718, 62200), (733, 62248), (750, 62281), (800, 62389), (850, 62485), (852, 62488),

Gene: Mireles_36 Start: 22753, Stop: 20567, Start Num: 136
Candidate Starts for Mireles_36:
(Start: 136 @22753 has 11 MA's), (148, 22699), (165, 22627), (229, 22363), (233, 22345), (240, 22318), (263, 22240), (277, 22171), (369, 21937), (408, 21856), (429, 21808), (444, 21784), (457, 21760), (458, 21757), (493, 21655), (516, 21571), (556, 21412), (578, 21310), (592, 21262), (627, 21124), (651, 21025), (652, 21022), (657, 21001), (662, 20986), (692, 20896), (727, 20788), (732, 20782), (746, 20749), (773, 20689), (779, 20674), (792, 20644), (814, 20596),

Gene: MisoSoup_72 Start: 46879, Stop: 44357, Start Num: 98
Candidate Starts for MisoSoup_72:
(67, 47077), (70, 47038), (74, 47014), (Start: 98 @46879 has 1 MA's), (128, 46687), (131, 46663), (143, 46597), (180, 46426), (221, 46252), (254, 46117), (266, 46063), (274, 46024), (314, 45907), (359, 45787), (364, 45778), (390, 45721), (469, 45541), (473, 45532), (531, 45349), (542, 45316), (567, 45208), (568, 45205), (590, 45115), (608, 45055), (621, 45004), (626, 44977), (638, 44923), (639, 44920), (644, 44902), (650, 44875), (658, 44845), (714, 44692), (777, 44548), (807, 44485), (859, 44380),

Gene: MoiGyank_91 Start: 60432, Stop: 63107, Start Num: 39
Candidate Starts for MoiGyank_91:
(Start: 39 @60432 has 40 MA's), (143, 60909), (144, 60912), (168, 60993), (191, 61077), (210, 61137), (214, 61149), (228, 61209), (271, 61383), (276, 61413), (296, 61464), (350, 61593), (361, 61620), (397, 61713), (413, 61746), (423, 61749), (428, 61755), (454, 61794), (464, 61827), (489, 61890), (497, 61917), (501, 61944), (519, 62013), (520, 62016), (525, 62031), (543, 62097), (548, 62124), (567, 62214), (574, 62256), (578, 62271), (585, 62298), (601, 62346), (616, 62388), (622, 62418), (632, 62481), (667, 62601), (672, 62625), (675, 62637), (689, 62685), (693, 62703), (720, 62781), (733, 62823), (789, 62946), (800, 62973), (837, 63051),

Gene: MontyDev_93 Start: 64935, Stop: 67688, Start Num: 38
Candidate Starts for MontyDev_93:
(Start: 38 @64935 has 15 MA's), (Start: 41 @64941 has 9 MA's), (55, 64992), (58, 65004), (113, 65280), (132, 65385), (133, 65397), (141, 65448), (144, 65466), (146, 65478), (150, 65493), (168, 65562), (178, 65604), (189, 65640), (191, 65649), (210, 65712), (214, 65724), (224, 65757), (234, 65811), (344, 66147), (365, 66192), (373, 66216), (374, 66219), (379, 66240), (383, 66249), (389, 66261), (416, 66318), (448, 66390), (455, 66426), (461, 66438), (474, 66474), (484, 66501), (486, 66504), (490, 66513), (494, 66525), (499, 66552), (511, 66597), (520, 66633), (525, 66648), (548, 66714), (565, 66795), (567, 66813), (571, 66822), (572, 66828), (576, 66861), (577, 66864), (609, 66966), (610, 66969), (612, 66972), (627, 67038), (633, 67071), (647, 67125), (649, 67134), (656, 67161), (682, 67230), (687, 67248), (689, 67260), (696, 67284), (698, 67287), (705, 67305), (717, 67341), (728, 67383), (757, 67440), (779, 67494), (826, 67596), (861, 67671),

Gene: Mopey_90 Start: 61256, Stop: 64198, Start Num: 40
Candidate Starts for Mopey_90:
(Start: 40 @61256 has 31 MA's), (79, 61439), (123, 61649), (134, 61694), (161, 61847), (182, 61934), (191, 61967), (196, 61988), (199, 62003), (214, 62051), (241, 62180), (245, 62189), (267, 62264), (269, 62276), (280, 62327), (282, 62336), (321, 62480), (349, 62603), (357, 62627), (371, 62663), (383, 62699), (408, 62753), (410, 62759), (420, 62801), (437, 62837), (453, 62903), (494, 63020), (497, 63029), (505, 63071), (510, 63089), (549, 63230), (553, 63251), (568, 63317), (585, 63398), (609, 63473), (618, 63503), (622, 63518), (627, 63548), (640, 63602), (653, 63656), (656, 63671),

(657, 63674), (658, 63677), (671, 63716), (673, 63725), (687, 63755), (693, 63785), (709, 63830), (723, 63872), (727, 63896), (735, 63911), (754, 63950), (772, 63992), (776, 64001), (796, 64049), (857, 64175), (858, 64181),

Gene: MrMiyagi_99 Start: 59517, Stop: 62252, Start Num: 41
Candidate Starts for MrMiyagi_99:
(Start: 41 @59517 has 9 MA's), (143, 59991), (169, 60102), (213, 60270), (214, 60282), (217, 60294), (241, 60411), (255, 60447), (266, 60489), (282, 60564), (288, 60588), (326, 60666), (352, 60741), (376, 60798), (390, 60837), (398, 60852), (402, 60858), (427, 60924), (441, 60954), (468, 61035), (479, 61059), (485, 61074), (494, 61095), (496, 61101), (558, 61329), (562, 61338), (568, 61371), (571, 61380), (574, 61410), (580, 61431), (581, 61434), (601, 61506), (604, 61518), (623, 61578), (643, 61668), (653, 61713), (654, 61716), (657, 61731), (658, 61734), (669, 61761), (674, 61785), (679, 61791), (688, 61818), (689, 61827), (720, 61923), (723, 61932), (729, 61959), (770, 62046), (772, 62052), (776, 62061), (796, 62109), (812, 62145), (817, 62154), (820, 62160), (823, 62169), (827, 62175), (850, 62229), (853, 62232),

Gene: NadineRae_52 Start: 39243, Stop: 36694, Start Num: 44
Candidate Starts for NadineRae_52:
(31, 39288), (Start: 44 @39243 has 44 MA's), (63, 39165), (86, 39057), (116, 38940), (214, 38559), (225, 38520), (228, 38496), (252, 38397), (305, 38205), (310, 38190), (346, 38124), (479, 37827), (481, 37821), (504, 37740), (528, 37656), (555, 37551), (557, 37542), (587, 37407), (599, 37368), (607, 37335), (609, 37332), (622, 37287), (632, 37227), (633, 37224), (638, 37209), (646, 37179), (656, 37134), (657, 37131), (670, 37095), (691, 37026), (697, 37011), (704, 36990), (724, 36930), (726, 36915), (775, 36825), (788, 36795), (818, 36729),

Gene: NatB6_52 Start: 42196, Stop: 39647, Start Num: 44
Candidate Starts for NatB6_52:
(Start: 44 @42196 has 44 MA's), (63, 42124), (86, 42016), (117, 41890), (156, 41692), (169, 41665), (187, 41602), (197, 41569), (214, 41515), (225, 41476), (227, 41455), (228, 41452), (262, 41311), (305, 41161), (309, 41149), (346, 41080), (382, 40990), (406, 40942), (417, 40915), (423, 40900), (442, 40873), (479, 40783), (481, 40777), (484, 40768), (514, 40660), (557, 40498), (577, 40402), (599, 40324), (601, 40315), (609, 40288), (627, 40213), (638, 40165), (646, 40135), (657, 40087), (684, 40015), (687, 40006), (704, 39946), (706, 39940), (708, 39934), (726, 39871), (777, 39778), (783, 39760), (788, 39751), (802, 39715), (820, 39682),

Gene: Nettle_90 Start: 60738, Stop: 63461, Start Num: 39
Candidate Starts for Nettle_90:
(Start: 39 @60738 has 40 MA's), (86, 60966), (113, 61038), (168, 61293), (174, 61311), (177, 61326), (182, 61350), (190, 61371), (196, 61398), (210, 61437), (214, 61449), (234, 61533), (235, 61536), (296, 61791), (345, 61926), (348, 61932), (419, 62112), (468, 62241), (506, 62361), (555, 62550), (557, 62559), (558, 62562), (563, 62574), (567, 62601), (573, 62640), (575, 62646), (578, 62658), (581, 62667), (587, 62694), (602, 62736), (619, 62793), (622, 62805), (647, 62922), (689, 63051), (717, 63138), (733, 63189), (789, 63300), (800, 63327), (810, 63348), (836, 63399),

Gene: Neuvillette_33 Start: 21717, Stop: 19513, Start Num: 136
Candidate Starts for Neuvillette_33:
(Start: 136 @21717 has 11 MA's), (148, 21663), (284, 21114), (340, 20985), (343, 20970), (372, 20886), (408, 20802), (426, 20757), (440, 20739), (462, 20688), (468, 20667), (500, 20568), (524, 20478), (539, 20433), (556, 20358), (578, 20256), (592, 20208), (608, 20154), (624, 20088), (627, 20070), (652, 19968), (657, 19947), (690, 19854), (692, 19842), (713, 19788), (727, 19734), (746, 19695), (773, 19635), (779, 19620), (792, 19590),

Gene: Nilo_94 Start: 65434, Stop: 68187, Start Num: 38

Candidate Starts for Nilo_94:
(Start: 38 @65434 has 15 MA's), (Start: 41 @65440 has 9 MA's), (55, 65491), (58, 65503), (62, 65527), (113, 65779), (132, 65884), (133, 65896), (141, 65947), (144, 65965), (146, 65977), (150, 65992), (168, 66061), (178, 66103), (189, 66139), (191, 66148), (210, 66211), (214, 66223), (224, 66256), (234, 66310), (344, 66646), (365, 66691), (373, 66715), (374, 66718), (379, 66739), (383, 66748), (416, 66817), (448, 66889), (455, 66925), (461, 66937), (474, 66973), (484, 67000), (486, 67003), (490, 67012), (494, 67024), (499, 67051), (507, 67081), (511, 67096), (520, 67132), (525, 67147), (548, 67213), (565, 67294), (567, 67312), (571, 67321), (572, 67327), (576, 67360), (577, 67363), (609, 67465), (610, 67468), (612, 67471), (627, 67537), (633, 67570), (647, 67624), (649, 67633), (656, 67660), (682, 67729), (687, 67747), (689, 67759), (696, 67783), (698, 67786), (701, 67795), (705, 67804), (717, 67840), (728, 67882), (757, 67939), (779, 67993), (826, 68095), (861, 68170),

Gene: Nish23_93 Start: 64787, Stop: 67738, Start Num: 36
Candidate Starts for Nish23_93:
(9, 64637), (11, 64661), (12, 64667), (15, 64685), (19, 64703), (20, 64721), (22, 64739), (Start: 29 @64766 has 1 MA's), (Start: 36 @64787 has 2 MA's), (Start: 38 @64793 has 15 MA's), (54, 64847), (61, 64883), (86, 65018), (115, 65156), (167, 65417), (182, 65483), (191, 65513), (205, 65573), (211, 65603), (214, 65630), (255, 65795), (275, 65882), (284, 65915), (285, 65936), (287, 65942), (294, 65969), (306, 65999), (312, 66017), (315, 66023), (331, 66113), (341, 66152), (444, 66422), (476, 66521), (506, 66626), (508, 66632), (513, 66647), (533, 66716), (539, 66740), (548, 66761), (556, 66806), (569, 66857), (574, 66893), (584, 66932), (607, 67004), (609, 67007), (610, 67010), (622, 67052), (631, 67112), (633, 67118), (634, 67127), (646, 67163), (657, 67211), (662, 67226), (679, 67271), (687, 67295), (724, 67412), (730, 67433), (743, 67463), (771, 67517), (806, 67592), (810, 67601), (840, 67664),

Gene: NorManre_93 Start: 61343, Stop: 64114, Start Num: 39
Candidate Starts for NorManre_93:
(Start: 39 @61343 has 40 MA's), (62, 61433), (129, 61751), (190, 62039), (191, 62045), (193, 62051), (203, 62090), (217, 62129), (224, 62150), (227, 62177), (234, 62204), (239, 62237), (254, 62279), (255, 62282), (263, 62312), (279, 62378), (286, 62399), (287, 62402), (296, 62429), (318, 62483), (341, 62552), (366, 62624), (386, 62684), (397, 62708), (414, 62741), (449, 62813), (498, 62981), (511, 63029), (512, 63032), (521, 63068), (546, 63149), (567, 63254), (574, 63296), (581, 63320), (584, 63335), (604, 63395), (609, 63410), (610, 63413), (619, 63443), (633, 63515), (658, 63614), (672, 63656), (686, 63689), (689, 63704), (700, 63740), (709, 63767), (714, 63782), (720, 63800), (725, 63821), (733, 63842), (790, 63965), (800, 63986), (823, 64022), (825, 64025),

Gene: NosilaM_56 Start: 43114, Stop: 40544, Start Num: 44
Candidate Starts for NosilaM_56:
(26, 43177), (Start: 44 @43114 has 44 MA's), (86, 42934), (147, 42652), (168, 42565), (172, 42550), (178, 42523), (214, 42406), (225, 42367), (228, 42343), (245, 42268), (277, 42130), (305, 42055), (307, 42052), (345, 41977), (346, 41974), (382, 41884), (406, 41836), (421, 41803), (422, 41797), (454, 41749), (462, 41722), (479, 41677), (481, 41671), (504, 41590), (515, 41551), (535, 41485), (564, 41374), (587, 41257), (591, 41248), (599, 41218), (601, 41209), (609, 41182), (622, 41137), (627, 41107), (632, 41077), (633, 41074), (638, 41059), (646, 41029), (670, 40945), (684, 40909), (687, 40900), (697, 40861), (704, 40840), (708, 40828), (726, 40765), (744, 40735), (788, 40645),

Gene: Nova_88 Start: 61749, Stop: 64682, Start Num: 40
Candidate Starts for Nova_88:
(Start: 40 @61749 has 31 MA's), (79, 61932), (123, 62142), (134, 62187), (144, 62244), (161, 62340), (182, 62427), (191, 62460), (196, 62481), (199, 62496), (214, 62544), (236, 62637), (241, 62673), (245, 62682), (267, 62757), (269, 62769), (280, 62820), (282, 62829), (321, 62973), (349, 63096), (371, 63156), (383, 63192), (408, 63246), (410, 63252), (420, 63294), (437, 63330), (453, 63396), (494, 63504), (497, 63513), (505, 63555), (510, 63573), (534, 63651), (549, 63714), (553, 63735),

(568, 63801), (585, 63882), (609, 63957), (622, 64002), (627, 64032), (640, 64086), (653, 64140), (656, 64155), (657, 64158), (658, 64161), (671, 64200), (673, 64209), (687, 64239), (693, 64269), (709, 64314), (723, 64356), (727, 64380), (735, 64395), (754, 64434), (765, 64461), (772, 64476), (776, 64485), (778, 64491), (796, 64533), (857, 64659), (858, 64665),

Gene: NovaSharks_88 Start: 58253, Stop: 60976, Start Num: 39
Candidate Starts for NovaSharks_88:
(Start: 39 @58253 has 40 MA's), (86, 58481), (113, 58553), (168, 58808), (177, 58841), (182, 58865), (190, 58886), (196, 58913), (210, 58952), (214, 58964), (234, 59048), (235, 59051), (296, 59306), (345, 59441), (348, 59447), (419, 59627), (468, 59756), (506, 59876), (546, 60011), (555, 60065), (557, 60074), (558, 60077), (563, 60089), (567, 60116), (573, 60155), (575, 60161), (578, 60173), (581, 60182), (587, 60209), (602, 60251), (619, 60308), (622, 60320), (647, 60437), (689, 60566), (717, 60653), (733, 60704), (789, 60815), (800, 60842), (810, 60863), (836, 60914),

Gene: NovumRegina_52 Start: 42505, Stop: 39956, Start Num: 44
Candidate Starts for NovumRegina_52:
(Start: 44 @42505 has 44 MA's), (63, 42433), (86, 42325), (117, 42199), (156, 42001), (169, 41974), (187, 41911), (197, 41878), (214, 41824), (225, 41785), (227, 41764), (228, 41761), (262, 41620), (305, 41470), (309, 41458), (346, 41389), (382, 41299), (406, 41251), (417, 41224), (442, 41182), (479, 41092), (481, 41086), (484, 41077), (514, 40969), (557, 40807), (577, 40711), (599, 40633), (601, 40624), (609, 40597), (627, 40522), (638, 40474), (646, 40444), (657, 40396), (684, 40324), (687, 40315), (704, 40255), (706, 40249), (708, 40243), (726, 40180), (777, 40087), (783, 40069), (788, 40060), (802, 40024), (820, 39991),

Gene: Oaker_91 Start: 65369, Stop: 68305, Start Num: 38
Candidate Starts for Oaker_91:
(3, 65177), (6, 65201), (7, 65207), (8, 65225), (10, 65243), (12, 65261), (15, 65279), (20, 65297), (22, 65315), (Start: 29 @65342 has 1 MA's), (Start: 36 @65363 has 2 MA's), (Start: 38 @65369 has 15 MA's), (54, 65423), (86, 65594), (115, 65732), (167, 65993), (182, 66059), (191, 66089), (205, 66149), (211, 66179), (214, 66206), (255, 66371), (275, 66458), (284, 66491), (285, 66512), (287, 66518), (294, 66545), (306, 66575), (312, 66593), (315, 66599), (331, 66689), (341, 66728), (444, 66998), (476, 67097), (506, 67202), (508, 67208), (513, 67223), (533, 67292), (539, 67316), (548, 67337), (556, 67382), (558, 67388), (569, 67433), (574, 67469), (584, 67508), (607, 67580), (609, 67583), (610, 67586), (622, 67628), (631, 67688), (633, 67694), (634, 67703), (646, 67739), (657, 67787), (662, 67802), (679, 67847), (687, 67871), (720, 67973), (728, 68006), (759, 68069), (781, 68120), (794, 68144), (810, 68180), (841, 68246),

Gene: Onyinye_107 Start: 68278, Stop: 71022, Start Num: 45
Candidate Starts for Onyinye_107:
(Start: 34 @68239 has 1 MA's), (Start: 45 @68278 has 2 MA's), (59, 68323), (86, 68470), (104, 68554), (129, 68710), (134, 68731), (142, 68782), (150, 68821), (156, 68872), (166, 68902), (174, 68935), (197, 69022), (199, 69031), (210, 69058), (214, 69070), (217, 69082), (224, 69103), (234, 69157), (263, 69265), (264, 69268), (274, 69319), (275, 69322), (292, 69391), (311, 69436), (316, 69445), (318, 69448), (325, 69457), (359, 69547), (373, 69577), (398, 69622), (405, 69631), (412, 69652), (504, 69889), (505, 69892), (506, 69898), (525, 69961), (545, 70021), (558, 70090), (562, 70099), (568, 70132), (574, 70171), (583, 70207), (595, 70231), (604, 70270), (612, 70291), (617, 70315), (642, 70417), (653, 70465), (656, 70480), (657, 70483), (661, 70495), (689, 70579), (693, 70597), (707, 70636), (712, 70645), (717, 70660), (726, 70699), (741, 70738), (774, 70792), (778, 70801), (797, 70843), (826, 70909), (839, 70939), (856, 70972), (863, 70987),

Gene: OscarSo_49 Start: 32561, Stop: 30030, Start Num: 103
Candidate Starts for OscarSo_49:

(55, 32840), (Start: 103 @32561 has 1 MA's), (125, 32402), (145, 32291), (196, 32123), (201, 32102), (217, 32036), (238, 31949), (254, 31904), (260, 31871), (300, 31727), (354, 31580), (375, 31535), (387, 31496), (409, 31454), (418, 31436), (442, 31397), (465, 31346), (506, 31217), (545, 31097), (554, 31043), (559, 31028), (567, 30995), (575, 30950), (596, 30893), (603, 30857), (606, 30848), (620, 30794), (629, 30743), (647, 30674), (659, 30632), (669, 30611), (700, 30536), (721, 30473), (723, 30467), (726, 30446), (760, 30377), (814, 30254), (815, 30248), (825, 30227), (834, 30206), (865, 30134), (871, 30047),

Gene: OtterstedtS21_89 Start: 60155, Stop: 62926, Start Num: 39
Candidate Starts for OtterstedtS21_89:
(Start: 39 @60155 has 40 MA's), (62, 60245), (129, 60563), (152, 60728), (190, 60851), (191, 60857), (193, 60863), (203, 60902), (217, 60941), (224, 60962), (227, 60989), (234, 61016), (239, 61049), (254, 61091), (255, 61094), (263, 61124), (279, 61190), (286, 61211), (287, 61214), (296, 61241), (318, 61295), (341, 61364), (366, 61436), (386, 61496), (397, 61520), (414, 61553), (449, 61625), (498, 61793), (511, 61841), (512, 61844), (521, 61880), (546, 61961), (567, 62066), (574, 62108), (581, 62132), (584, 62147), (604, 62207), (609, 62222), (610, 62225), (619, 62255), (633, 62327), (658, 62426), (672, 62468), (686, 62501), (689, 62516), (700, 62552), (709, 62579), (714, 62594), (720, 62612), (725, 62633), (733, 62654), (790, 62777), (800, 62798), (823, 62834), (825, 62837),

Gene: Outis_54 Start: 43113, Stop: 40543, Start Num: 44
Candidate Starts for Outis_54:
(22, 43188), (24, 43179), (Start: 44 @43113 has 44 MA's), (86, 42933), (168, 42564), (172, 42549), (178, 42522), (214, 42405), (225, 42366), (228, 42342), (277, 42129), (305, 42054), (307, 42051), (345, 41976), (346, 41973), (382, 41883), (395, 41853), (406, 41835), (454, 41748), (455, 41745), (462, 41721), (479, 41676), (481, 41670), (484, 41661), (504, 41589), (515, 41550), (535, 41484), (564, 41373), (587, 41256), (591, 41247), (599, 41217), (601, 41208), (609, 41181), (622, 41136), (627, 41106), (631, 41079), (632, 41076), (633, 41073), (638, 41058), (646, 41028), (657, 40980), (684, 40908), (687, 40899), (697, 40860), (704, 40839), (708, 40827), (726, 40764), (744, 40734), (752, 40722), (788, 40644), (795, 40626),

Gene: P1201_54 Start: 43347, Stop: 40702, Start Num: 27
Candidate Starts for P1201_54:
(27, 43347), (50, 43272), (53, 43257), (81, 43119), (118, 42966), (137, 42867), (140, 42852), (144, 42831), (155, 42777), (174, 42735), (213, 42546), (216, 42525), (228, 42471), (271, 42303), (378, 42045), (391, 42012), (425, 41940), (457, 41886), (463, 41865), (482, 41814), (506, 41727), (528, 41658), (530, 41649), (548, 41592), (557, 41544), (558, 41541), (564, 41526), (567, 41502), (575, 41457), (588, 41406), (607, 41340), (609, 41337), (612, 41331), (624, 41280), (643, 41199), (681, 41073), (693, 41028), (755, 40866), (830, 40710),

Gene: PBI1_81 Start: 61116, Stop: 64067, Start Num: 40
Candidate Starts for PBI1_81:
(Start: 40 @61116 has 31 MA's), (79, 61299), (123, 61509), (134, 61554), (161, 61707), (182, 61794), (191, 61827), (193, 61833), (196, 61848), (199, 61863), (214, 61911), (236, 62004), (241, 62040), (245, 62049), (267, 62124), (269, 62136), (280, 62187), (282, 62196), (321, 62340), (349, 62463), (357, 62487), (371, 62523), (383, 62559), (408, 62613), (410, 62619), (420, 62661), (437, 62697), (453, 62763), (494, 62889), (497, 62898), (505, 62940), (510, 62958), (518, 62988), (534, 63036), (549, 63099), (553, 63120), (568, 63186), (585, 63267), (609, 63342), (618, 63372), (622, 63387), (627, 63417), (640, 63471), (653, 63525), (656, 63540), (657, 63543), (658, 63546), (671, 63585), (673, 63594), (687, 63624), (693, 63654), (700, 63672), (709, 63699), (723, 63741), (727, 63765), (735, 63780), (754, 63819), (772, 63861), (776, 63870), (796, 63918), (857, 64044), (858, 64050),

Gene: PLot_89 Start: 61410, Stop: 64361, Start Num: 40
Candidate Starts for PLot_89:

(Start: 40 @61410 has 31 MA's), (79, 61593), (123, 61803), (134, 61848), (161, 62001), (182, 62088), (191, 62121), (196, 62142), (199, 62157), (214, 62205), (241, 62334), (245, 62343), (267, 62418), (269, 62430), (280, 62481), (282, 62490), (321, 62634), (349, 62757), (371, 62817), (383, 62853), (408, 62907), (410, 62913), (420, 62955), (437, 62991), (453, 63057), (494, 63183), (497, 63192), (505, 63234), (510, 63252), (534, 63330), (549, 63393), (553, 63414), (568, 63480), (585, 63561), (609, 63636), (618, 63666), (622, 63681), (627, 63711), (640, 63765), (653, 63819), (656, 63834), (657, 63837), (658, 63840), (671, 63879), (673, 63888), (687, 63918), (693, 63948), (709, 63993), (723, 64035), (727, 64059), (735, 64074), (754, 64113), (772, 64155), (776, 64164), (796, 64212), (857, 64338), (858, 64344),

Gene: Papyrus_91 Start: 64374, Stop: 67121, Start Num: 41
Candidate Starts for Papyrus_91:
(Start: 38 @64368 has 15 MA's), (Start: 41 @64374 has 9 MA's), (55, 64425), (58, 64437), (62, 64461), (132, 64818), (133, 64830), (141, 64881), (144, 64899), (146, 64911), (150, 64926), (168, 64995), (178, 65037), (189, 65073), (191, 65082), (210, 65145), (214, 65157), (224, 65190), (234, 65244), (344, 65580), (365, 65625), (373, 65649), (374, 65652), (379, 65673), (383, 65682), (389, 65694), (416, 65751), (448, 65823), (455, 65859), (461, 65871), (474, 65907), (484, 65934), (486, 65937), (490, 65946), (494, 65958), (499, 65985), (507, 66015), (511, 66030), (520, 66066), (525, 66081), (548, 66147), (565, 66228), (567, 66246), (571, 66255), (572, 66261), (576, 66294), (577, 66297), (609, 66399), (610, 66402), (612, 66405), (627, 66471), (633, 66504), (647, 66558), (649, 66567), (656, 66594), (682, 66663), (687, 66681), (689, 66693), (696, 66717), (698, 66720), (705, 66738), (717, 66774), (728, 66816), (757, 66873), (779, 66927), (826, 67029), (861, 67104),

Gene: ParvusTarda_88 Start: 59427, Stop: 62198, Start Num: 39
Candidate Starts for ParvusTarda_88:
(Start: 39 @59427 has 40 MA's), (62, 59517), (129, 59835), (152, 60000), (190, 60123), (191, 60129), (193, 60135), (203, 60174), (217, 60213), (224, 60234), (227, 60261), (234, 60288), (239, 60321), (254, 60363), (255, 60366), (263, 60396), (279, 60462), (286, 60483), (287, 60486), (296, 60513), (318, 60567), (341, 60636), (366, 60708), (386, 60768), (397, 60792), (414, 60825), (449, 60897), (498, 61065), (511, 61113), (512, 61116), (521, 61152), (546, 61233), (567, 61338), (574, 61380), (581, 61404), (584, 61419), (604, 61479), (609, 61494), (610, 61497), (619, 61527), (633, 61599), (658, 61698), (672, 61740), (686, 61773), (689, 61788), (700, 61824), (709, 61851), (714, 61866), (720, 61884), (725, 61905), (733, 61926), (790, 62049), (800, 62070), (823, 62106), (825, 62109),

Gene: Patience_109 Start: 67316, Stop: 70024, Start Num: 42
Candidate Starts for Patience_109:
(Start: 42 @67316 has 4 MA's), (46, 67331), (48, 67334), (62, 67397), (63, 67409), (159, 67862), (172, 67901), (182, 67943), (183, 67949), (191, 67973), (214, 68054), (222, 68081), (247, 68201), (258, 68240), (287, 68366), (298, 68396), (323, 68444), (332, 68459), (338, 68468), (350, 68519), (353, 68531), (362, 68549), (373, 68576), (406, 68654), (450, 68762), (466, 68810), (494, 68882), (500, 68912), (505, 68933), (513, 68963), (518, 68987), (536, 69038), (553, 69086), (558, 69110), (563, 69122), (574, 69191), (657, 69509), (674, 69557), (683, 69572), (685, 69581), (687, 69587), (688, 69590), (693, 69617), (699, 69629), (702, 69638), (717, 69680), (724, 69704), (734, 69731), (755, 69773), (784, 69842), (792, 69857), (796, 69866), (842, 69965), (864, 70016),

Gene: Patio_56 Start: 43371, Stop: 40810, Start Num: 44
Candidate Starts for Patio_56:
(24, 43437), (Start: 44 @43371 has 44 MA's), (56, 43344), (63, 43296), (86, 43188), (178, 42783), (187, 42753), (214, 42663), (225, 42624), (227, 42603), (228, 42600), (234, 42576), (245, 42525), (268, 42432), (277, 42387), (278, 42384), (298, 42327), (346, 42231), (381, 42144), (396, 42108), (470, 41952), (479, 41934), (481, 41928), (484, 41919), (504, 41847), (519, 41799), (564, 41640), (599, 41484), (607, 41451), (622, 41403), (631, 41346), (632, 41343), (638, 41325), (646, 41295), (657, 41247), (666, 41226), (674, 41205), (687, 41166), (695, 41130), (708, 41094), (716, 41076),

(726, 41031), (752, 40989), (788, 40914), (802, 40878), (811, 40860),

Gene: Patos_93 Start: 61342, Stop: 64113, Start Num: 39
Candidate Starts for Patos_93:
(Start: 39 @61342 has 40 MA's), (62, 61432), (129, 61750), (190, 62038), (191, 62044), (193, 62050), (203, 62089), (217, 62128), (224, 62149), (227, 62176), (234, 62203), (239, 62236), (254, 62278), (255, 62281), (263, 62311), (279, 62377), (286, 62398), (287, 62401), (296, 62428), (318, 62482), (341, 62551), (366, 62623), (386, 62683), (397, 62707), (414, 62740), (449, 62812), (498, 62980), (511, 63028), (512, 63031), (521, 63067), (546, 63148), (567, 63253), (574, 63295), (581, 63319), (584, 63334), (604, 63394), (609, 63409), (610, 63412), (619, 63442), (633, 63514), (658, 63613), (672, 63655), (686, 63688), (689, 63703), (700, 63739), (709, 63766), (714, 63781), (720, 63799), (725, 63820), (733, 63841), (790, 63964), (800, 63985), (823, 64021), (825, 64024),

Gene: PauloDiaboli_104 Start: 70538, Stop: 67893, Start Num: 83
Candidate Starts for PauloDiaboli_104:
(Start: 78 @70568 has 2 MA's), (80, 70547), (Start: 83 @70538 has 5 MA's), (120, 70301), (150, 70133), (157, 70082), (188, 69965), (193, 69944), (210, 69878), (227, 69806), (232, 69788), (240, 69755), (249, 69728), (263, 69674), (272, 69632), (274, 69620), (275, 69617), (311, 69506), (335, 69458), (359, 69377), (380, 69317), (393, 69287), (403, 69266), (432, 69206), (446, 69179), (498, 69026), (506, 68993), (511, 68984), (515, 68972), (566, 68765), (567, 68762), (575, 68717), (605, 68600), (611, 68585), (614, 68576), (619, 68549), (623, 68534), (651, 68408), (661, 68372), (672, 68336), (694, 68273), (723, 68186), (724, 68180), (727, 68162), (746, 68123), (768, 68075), (786, 68033), (799, 68000),

Gene: Pemberton_54 Start: 39981, Stop: 37429, Start Num: 44
Candidate Starts for Pemberton_54:
(31, 40026), (Start: 44 @39981 has 44 MA's), (63, 39903), (80, 39822), (86, 39792), (92, 39768), (107, 39741), (214, 39294), (225, 39255), (227, 39234), (228, 39231), (305, 38940), (310, 38925), (346, 38859), (479, 38562), (481, 38556), (484, 38547), (504, 38475), (555, 38286), (557, 38277), (577, 38181), (585, 38151), (587, 38142), (599, 38103), (601, 38094), (607, 38070), (609, 38067), (622, 38022), (632, 37962), (633, 37959), (638, 37944), (646, 37914), (653, 37884), (657, 37866), (670, 37830), (691, 37761), (697, 37746), (706, 37719), (724, 37665), (726, 37650), (751, 37611), (775, 37560), (788, 37530),

Gene: Penelope2018_88 Start: 61186, Stop: 64128, Start Num: 40
Candidate Starts for Penelope2018_88:
(Start: 40 @61186 has 31 MA's), (79, 61369), (123, 61579), (134, 61624), (161, 61777), (182, 61864), (191, 61897), (196, 61918), (199, 61933), (214, 61981), (236, 62074), (241, 62110), (245, 62119), (267, 62194), (269, 62206), (280, 62257), (282, 62266), (321, 62410), (349, 62533), (357, 62557), (371, 62593), (383, 62629), (408, 62683), (410, 62689), (420, 62731), (437, 62767), (453, 62833), (494, 62950), (497, 62959), (505, 63001), (510, 63019), (534, 63097), (549, 63160), (553, 63181), (568, 63247), (585, 63328), (609, 63403), (618, 63433), (622, 63448), (627, 63478), (640, 63532), (653, 63586), (656, 63601), (657, 63604), (658, 63607), (671, 63646), (673, 63655), (687, 63685), (693, 63715), (709, 63760), (723, 63802), (727, 63826), (735, 63841), (754, 63880), (772, 63922), (776, 63931), (796, 63979), (857, 64105), (858, 64111),

Gene: PeteyPab_40 Start: 38011, Stop: 35468, Start Num: 52
Candidate Starts for PeteyPab_40:
(32, 38068), (51, 38014), (Start: 52 @38011 has 8 MA's), (68, 37930), (69, 37921), (72, 37900), (86, 37834), (104, 37810), (110, 37768), (114, 37747), (122, 37690), (138, 37609), (139, 37606), (149, 37564), (172, 37492), (213, 37327), (214, 37315), (228, 37252), (235, 37225), (250, 37162), (287, 37012), (298, 36982), (346, 36904), (391, 36790), (404, 36766), (431, 36712), (460, 36655), (463, 36646), (486, 36586), (491, 36574), (503, 36520), (516, 36475), (518, 36460), (521, 36451), (528,

36427), (530, 36418), (535, 36406), (566, 36274), (570, 36262), (577, 36217), (586, 36184), (601, 36133), (604, 36121), (607, 36109), (693, 35791), (712, 35737), (763, 35614), (769, 35602), (787, 35560), (817, 35500),

Gene: Phalaborwa_90 Start: 61757, Stop: 64696, Start Num: 40
Candidate Starts for Phalaborwa_90:
(14, 61634), (28, 61718), (Start: 29 @61724 has 1 MA's), (Start: 40 @61757 has 31 MA's), (79, 61940), (88, 61985), (123, 62150), (134, 62195), (161, 62348), (162, 62351), (177, 62411), (182, 62435), (191, 62468), (196, 62489), (199, 62504), (202, 62513), (214, 62552), (241, 62681), (267, 62765), (269, 62777), (282, 62837), (321, 62981), (349, 63104), (357, 63128), (371, 63164), (408, 63254), (410, 63260), (437, 63338), (497, 63524), (505, 63566), (510, 63584), (519, 63617), (534, 63662), (549, 63725), (553, 63746), (558, 63770), (567, 63809), (568, 63812), (585, 63893), (609, 63968), (618, 63998), (622, 64013), (653, 64151), (656, 64166), (657, 64169), (658, 64172), (671, 64211), (673, 64220), (687, 64250), (693, 64280), (709, 64325), (723, 64367), (735, 64406), (754, 64445), (765, 64472), (772, 64487), (776, 64496), (778, 64502), (796, 64544), (822, 64601), (854, 64667), (858, 64676),

Gene: Phomeo_51 Start: 42774, Stop: 40225, Start Num: 44
Candidate Starts for Phomeo_51:
(Start: 44 @42774 has 44 MA's), (63, 42702), (86, 42594), (117, 42468), (156, 42270), (169, 42243), (187, 42180), (197, 42147), (214, 42093), (225, 42054), (227, 42033), (228, 42030), (262, 41889), (305, 41739), (309, 41727), (346, 41658), (382, 41568), (406, 41520), (417, 41493), (423, 41478), (442, 41451), (479, 41361), (481, 41355), (484, 41346), (514, 41238), (557, 41076), (577, 40980), (599, 40902), (601, 40893), (609, 40866), (627, 40791), (638, 40743), (646, 40713), (657, 40665), (684, 40593), (687, 40584), (704, 40524), (706, 40518), (708, 40512), (726, 40449), (777, 40356), (783, 40338), (788, 40329), (802, 40293), (820, 40260),

Gene: Phreeze_91 Start: 64168, Stop: 67110, Start Num: 36
Candidate Starts for Phreeze_91:
(23, 64126), (Start: 29 @64147 has 1 MA's), (Start: 36 @64168 has 2 MA's), (Start: 38 @64174 has 15 MA's), (54, 64228), (61, 64264), (86, 64399), (115, 64537), (167, 64798), (182, 64864), (191, 64894), (205, 64954), (211, 64984), (214, 65011), (255, 65176), (275, 65263), (284, 65296), (285, 65317), (287, 65323), (294, 65350), (306, 65380), (312, 65398), (315, 65404), (331, 65494), (341, 65533), (444, 65803), (476, 65902), (506, 66007), (508, 66013), (513, 66028), (533, 66097), (539, 66121), (548, 66142), (556, 66187), (569, 66238), (574, 66274), (584, 66313), (607, 66385), (609, 66388), (610, 66391), (622, 66433), (631, 66493), (633, 66499), (634, 66508), (646, 66544), (657, 66592), (662, 66607), (679, 66652), (687, 66676), (728, 66811), (759, 66874), (781, 66925), (794, 66949), (810, 66985), (841, 67051),

Gene: Pleakley_60 Start: 42280, Stop: 39746, Start Num: 44
Candidate Starts for Pleakley_60:
(Start: 44 @42280 has 44 MA's), (63, 42205), (86, 42097), (107, 42046), (168, 41758), (187, 41686), (214, 41599), (225, 41560), (227, 41539), (228, 41536), (236, 41506), (245, 41461), (252, 41437), (265, 41386), (298, 41263), (346, 41167), (406, 41029), (421, 40996), (442, 40960), (479, 40870), (519, 40729), (557, 40588), (564, 40570), (587, 40453), (599, 40414), (607, 40381), (622, 40333), (632, 40273), (638, 40255), (646, 40225), (657, 40177), (666, 40156), (674, 40135), (687, 40096), (697, 40057), (704, 40036), (777, 39868), (783, 39850), (788, 39841), (800, 39811), (811, 39787),

Gene: Polyyuki_53 Start: 40124, Stop: 37524, Start Num: 49
Candidate Starts for Polyyuki_53:
(Start: 49 @40124 has 6 MA's), (72, 40007), (86, 39944), (88, 39935), (93, 39917), (135, 39731), (137, 39719), (138, 39713), (198, 39470), (214, 39425), (219, 39407), (227, 39365), (230, 39359), (233, 39341), (235, 39335), (266, 39203), (310, 39056), (327, 39041), (329, 39038), (342, 38999), (360,

38957), (365, 38948), (374, 38924), (455, 38759), (481, 38684), (486, 38672), (504, 38603), (519, 38552), (539, 38486), (557, 38411), (567, 38369), (579, 38309), (586, 38282), (601, 38228), (604, 38216), (607, 38204), (622, 38156), (632, 38096), (633, 38093), (638, 38078), (666, 37979), (687, 37919), (741, 37751), (795, 37634), (805, 37610), (818, 37580), (820, 37577), (825, 37565), (833, 37547),

Gene: PotatoChip_41 Start: 38013, Stop: 35470, Start Num: 52
Candidate Starts for PotatoChip_41:
(32, 38070), (51, 38016), (Start: 52 @38013 has 8 MA's), (68, 37932), (69, 37923), (72, 37902), (86, 37836), (104, 37812), (110, 37770), (114, 37749), (122, 37692), (138, 37611), (139, 37608), (149, 37566), (172, 37494), (213, 37329), (214, 37317), (228, 37254), (235, 37227), (250, 37164), (287, 37014), (298, 36984), (346, 36906), (391, 36792), (404, 36768), (431, 36714), (460, 36657), (463, 36648), (486, 36588), (491, 36576), (503, 36522), (516, 36477), (518, 36462), (521, 36453), (528, 36429), (530, 36420), (535, 36408), (566, 36276), (570, 36264), (577, 36219), (586, 36186), (601, 36135), (604, 36123), (607, 36111), (693, 35793), (712, 35739), (763, 35616), (769, 35604), (787, 35562), (817, 35502),

Gene: Prager_88 Start: 61094, Stop: 64036, Start Num: 40
Candidate Starts for Prager_88:
(Start: 40 @61094 has 31 MA's), (79, 61277), (123, 61487), (134, 61532), (161, 61685), (182, 61772), (191, 61805), (193, 61811), (196, 61826), (199, 61841), (214, 61889), (241, 62018), (245, 62027), (267, 62102), (269, 62114), (280, 62165), (282, 62174), (321, 62318), (349, 62441), (357, 62465), (371, 62501), (383, 62537), (408, 62591), (410, 62597), (420, 62639), (437, 62675), (453, 62741), (494, 62858), (497, 62867), (505, 62909), (510, 62927), (521, 62966), (534, 63005), (549, 63068), (553, 63089), (568, 63155), (585, 63236), (609, 63311), (618, 63341), (622, 63356), (627, 63386), (640, 63440), (653, 63494), (656, 63509), (657, 63512), (658, 63515), (671, 63554), (673, 63563), (687, 63593), (693, 63623), (709, 63668), (723, 63710), (727, 63734), (735, 63749), (754, 63788), (772, 63830), (776, 63839), (796, 63887), (857, 64013), (858, 64019),

Gene: Predator_92 Start: 66439, Stop: 69402, Start Num: 29
Candidate Starts for Predator_92:
(28, 66433), (Start: 29 @66439 has 1 MA's), (62, 66562), (76, 66637), (130, 66913), (135, 66931), (177, 67126), (182, 67150), (191, 67180), (195, 67192), (206, 67243), (214, 67297), (263, 67492), (281, 67576), (284, 67582), (285, 67603), (294, 67636), (301, 67654), (306, 67666), (312, 67684), (315, 67690), (319, 67699), (331, 67762), (341, 67801), (370, 67885), (444, 68071), (476, 68170), (499, 68245), (505, 68269), (533, 68365), (539, 68389), (551, 68422), (574, 68542), (581, 68566), (584, 68581), (587, 68593), (600, 68626), (601, 68629), (607, 68653), (615, 68671), (622, 68701), (631, 68761), (633, 68767), (643, 68797), (664, 68878), (666, 68881), (674, 68914), (679, 68920), (683, 68929), (684, 68935), (688, 68947), (702, 68995), (728, 69079), (781, 69196), (785, 69202), (810, 69256), (821, 69277), (856, 69349), (860, 69358), (866, 69385), (868, 69394),

Gene: Puissant_90 Start: 65588, Stop: 68590, Start Num: 35
Candidate Starts for Puissant_90:
(Start: 35 @65588 has 1 MA's), (Start: 36 @65591 has 2 MA's), (43, 65612), (77, 65771), (86, 65822), (130, 66095), (135, 66113), (153, 66224), (159, 66248), (167, 66266), (174, 66293), (181, 66329), (182, 66332), (191, 66362), (205, 66422), (214, 66479), (228, 66542), (241, 66608), (255, 66644), (284, 66764), (285, 66785), (287, 66791), (294, 66818), (296, 66824), (306, 66848), (312, 66866), (315, 66872), (319, 66881), (331, 66965), (341, 67004), (444, 67274), (476, 67373), (508, 67484), (513, 67499), (533, 67568), (556, 67658), (558, 67664), (569, 67709), (574, 67745), (584, 67784), (587, 67796), (607, 67856), (609, 67859), (622, 67904), (626, 67934), (631, 67964), (634, 67979), (642, 67997), (643, 68000), (646, 68015), (655, 68057), (657, 68063), (677, 68120), (679, 68123), (684, 68138), (687, 68147), (724, 68264), (730, 68285), (767, 68360), (840, 68516), (846, 68528),

Gene: Pumpernickel_101 Start: 72101, Stop: 69495, Start Num: 83
Candidate Starts for Pumpernickel_101:
(73, 72155), (80, 72110), (Start: 83 @72101 has 5 MA's), (89, 72068), (120, 71864), (121, 71861), (144, 71726), (173, 71597), (186, 71525), (188, 71519), (193, 71498), (220, 71414), (227, 71387), (263, 71255), (272, 71213), (274, 71201), (281, 71171), (291, 71147), (308, 71096), (355, 70994), (357, 70991), (359, 70985), (363, 70979), (380, 70925), (439, 70805), (444, 70790), (456, 70769), (507, 70598), (511, 70592), (566, 70373), (567, 70370), (570, 70361), (573, 70331), (575, 70325), (578, 70313), (605, 70208), (611, 70193), (651, 70016), (694, 69881), (724, 69788), (727, 69770), (746, 69731), (768, 69683), (813, 69584), (817, 69572), (818, 69569), (845, 69518), (846, 69515),

Gene: Pywacket_86 Start: 60316, Stop: 63018, Start Num: 39
Candidate Starts for Pywacket_86:
(Start: 39 @60316 has 40 MA's), (143, 60793), (144, 60796), (168, 60877), (191, 60961), (210, 61021), (214, 61033), (221, 61057), (228, 61093), (271, 61267), (276, 61297), (296, 61348), (350, 61501), (366, 61534), (423, 61684), (449, 61723), (468, 61801), (475, 61813), (477, 61816), (487, 61843), (497, 61876), (504, 61915), (516, 61954), (525, 61990), (543, 62047), (544, 62053), (557, 62122), (558, 62125), (567, 62164), (568, 62167), (570, 62173), (573, 62203), (574, 62206), (579, 62224), (581, 62230), (601, 62296), (607, 62320), (619, 62356), (623, 62371), (636, 62443), (653, 62506), (667, 62545), (679, 62578), (690, 62617), (693, 62632), (700, 62650), (733, 62752), (756, 62797), (762, 62812), (788, 62860), (789, 62863), (800, 62890), (803, 62899), (810, 62911),

Gene: Ranch_92 Start: 59829, Stop: 62600, Start Num: 39
Candidate Starts for Ranch_92:
(Start: 39 @59829 has 40 MA's), (62, 59919), (129, 60237), (190, 60525), (191, 60531), (193, 60537), (203, 60576), (217, 60615), (224, 60636), (227, 60663), (234, 60690), (239, 60723), (254, 60765), (255, 60768), (263, 60798), (279, 60864), (286, 60885), (287, 60888), (296, 60915), (318, 60969), (341, 61038), (366, 61110), (386, 61170), (397, 61194), (414, 61227), (449, 61299), (498, 61467), (511, 61515), (512, 61518), (521, 61554), (546, 61635), (567, 61740), (574, 61782), (581, 61806), (584, 61821), (604, 61881), (609, 61896), (610, 61899), (619, 61929), (633, 62001), (658, 62100), (672, 62142), (686, 62175), (689, 62190), (700, 62226), (709, 62253), (714, 62268), (720, 62286), (725, 62307), (733, 62328), (790, 62451), (800, 62472), (823, 62508), (825, 62511),

Gene: RazorC_86 Start: 58293, Stop: 61031, Start Num: 39
Candidate Starts for RazorC_86:
(Start: 39 @58293 has 40 MA's), (86, 58521), (113, 58593), (168, 58848), (177, 58881), (182, 58905), (190, 58926), (196, 58953), (210, 58992), (214, 59004), (234, 59088), (235, 59091), (272, 59250), (296, 59346), (341, 59463), (366, 59532), (369, 59544), (421, 59673), (435, 59700), (436, 59703), (477, 59826), (494, 59874), (500, 59904), (501, 59910), (516, 59961), (521, 59985), (543, 60054), (544, 60060), (555, 60120), (557, 60129), (558, 60132), (563, 60144), (567, 60171), (573, 60210), (574, 60213), (576, 60222), (577, 60225), (579, 60231), (581, 60237), (619, 60369), (622, 60381), (625, 60396), (679, 60591), (689, 60627), (690, 60630), (733, 60765), (789, 60876), (791, 60882), (795, 60891), (838, 60981),

Gene: RedRaider_60 Start: 45393, Stop: 42832, Start Num: 44
Candidate Starts for RedRaider_60:
(5, 45618), (17, 45519), (24, 45459), (Start: 44 @45393 has 44 MA's), (56, 45366), (86, 45210), (178, 44805), (187, 44775), (198, 44730), (214, 44685), (225, 44646), (227, 44625), (228, 44622), (234, 44598), (245, 44547), (268, 44454), (277, 44409), (278, 44406), (298, 44349), (346, 44253), (443, 44043), (470, 43974), (479, 43956), (481, 43950), (484, 43941), (504, 43869), (551, 43716), (555, 43689), (564, 43662), (599, 43506), (607, 43473), (622, 43425), (631, 43368), (632, 43365), (633, 43362), (638, 43347), (646, 43317), (657, 43269), (666, 43248), (674, 43227), (687, 43188), (708, 43116), (716, 43098), (726, 43053), (752, 43011), (788, 42936), (802, 42900), (811, 42882), (828, 42849),

Gene: Riduram_85 Start: 57891, Stop: 60662, Start Num: 39
Candidate Starts for Riduram_85:
(Start: 39 @57891 has 40 MA's), (62, 57981), (129, 58299), (190, 58587), (191, 58593), (193, 58599), (203, 58638), (227, 58725), (234, 58752), (239, 58785), (254, 58827), (255, 58830), (263, 58860), (279, 58926), (286, 58947), (287, 58950), (296, 58977), (318, 59031), (341, 59100), (366, 59172), (386, 59232), (397, 59256), (414, 59289), (449, 59361), (498, 59529), (500, 59535), (511, 59577), (521, 59616), (546, 59697), (567, 59802), (574, 59844), (581, 59868), (584, 59883), (604, 59943), (609, 59958), (610, 59961), (619, 59991), (633, 60063), (641, 60090), (653, 60141), (658, 60162), (672, 60204), (686, 60237), (689, 60252), (709, 60315), (720, 60348), (733, 60390), (790, 60513), (800, 60534), (823, 60570), (825, 60573),

Gene: Riparian_93 Start: 64880, Stop: 67633, Start Num: 38
Candidate Starts for Riparian_93:
(Start: 38 @64880 has 15 MA's), (Start: 41 @64886 has 9 MA's), (55, 64937), (58, 64949), (62, 64973), (132, 65330), (133, 65342), (141, 65393), (144, 65411), (146, 65423), (150, 65438), (168, 65507), (178, 65549), (189, 65585), (191, 65594), (210, 65657), (214, 65669), (224, 65702), (234, 65756), (344, 66092), (365, 66137), (373, 66161), (374, 66164), (379, 66185), (383, 66194), (416, 66263), (448, 66335), (455, 66371), (461, 66383), (474, 66419), (484, 66446), (486, 66449), (490, 66458), (494, 66470), (499, 66497), (507, 66527), (511, 66542), (520, 66578), (525, 66593), (548, 66659), (565, 66740), (567, 66758), (571, 66767), (572, 66773), (576, 66806), (577, 66809), (609, 66911), (610, 66914), (612, 66917), (627, 66983), (633, 67016), (647, 67070), (649, 67079), (656, 67106), (682, 67175), (687, 67193), (689, 67205), (696, 67229), (698, 67232), (701, 67241), (705, 67250), (717, 67286), (728, 67328), (757, 67385), (779, 67439), (826, 67541), (861, 67616),

Gene: Roberts_33 Start: 21717, Stop: 19513, Start Num: 136
Candidate Starts for Roberts_33:
(Start: 136 @21717 has 11 MA's), (148, 21663), (284, 21114), (340, 20985), (343, 20970), (372, 20886), (408, 20802), (426, 20757), (440, 20739), (462, 20688), (468, 20667), (500, 20568), (524, 20478), (539, 20433), (556, 20358), (578, 20256), (592, 20208), (608, 20154), (624, 20088), (627, 20070), (652, 19968), (657, 19947), (690, 19854), (692, 19842), (713, 19788), (727, 19734), (746, 19695), (773, 19635), (779, 19620), (792, 19590),

Gene: Rope_90 Start: 64692, Stop: 67439, Start Num: 41
Candidate Starts for Rope_90:
(Start: 41 @64692 has 9 MA's), (55, 64743), (58, 64755), (62, 64779), (132, 65136), (133, 65148), (141, 65199), (144, 65217), (146, 65229), (150, 65244), (168, 65313), (178, 65355), (189, 65391), (191, 65400), (210, 65463), (214, 65475), (224, 65508), (234, 65562), (344, 65898), (365, 65943), (373, 65967), (374, 65970), (379, 65991), (383, 66000), (389, 66012), (407, 66048), (416, 66069), (455, 66177), (461, 66189), (474, 66225), (484, 66252), (486, 66255), (490, 66264), (494, 66276), (499, 66303), (507, 66333), (511, 66348), (520, 66384), (525, 66399), (548, 66465), (565, 66546), (567, 66564), (571, 66573), (572, 66579), (576, 66612), (577, 66615), (609, 66717), (610, 66720), (612, 66723), (627, 66789), (633, 66822), (647, 66876), (649, 66885), (656, 66912), (682, 66981), (687, 66999), (689, 67011), (698, 67038), (705, 67056), (717, 67092), (728, 67134), (757, 67191), (779, 67245), (826, 67347), (861, 67422),

Gene: Rota_87 Start: 60255, Stop: 62960, Start Num: 39
Candidate Starts for Rota_87:
(Start: 39 @60255 has 40 MA's), (62, 60345), (66, 60369), (129, 60663), (152, 60828), (190, 60951), (191, 60957), (193, 60963), (203, 61002), (217, 61041), (227, 61089), (234, 61116), (239, 61149), (254, 61191), (255, 61194), (263, 61224), (279, 61290), (286, 61311), (287, 61314), (296, 61341), (358, 61488), (455, 61695), (468, 61740), (480, 61764), (494, 61803), (505, 61854), (508, 61866), (520, 61911), (528, 61938), (529, 61941), (552, 62034), (563, 62076), (567, 62103), (582, 62178),

(587, 62196), (593, 62205), (597, 62208), (607, 62259), (629, 62352), (657, 62463), (667, 62484), (688, 62544), (693, 62571), (733, 62691), (750, 62724), (800, 62832), (850, 62928), (852, 62931),

Gene: Rukungu_89 Start: 60588, Stop: 63359, Start Num: 39
Candidate Starts for Rukungu_89:
(Start: 39 @60588 has 40 MA's), (62, 60678), (129, 60996), (190, 61284), (191, 61290), (193, 61296), (203, 61335), (227, 61422), (234, 61449), (239, 61482), (254, 61524), (255, 61527), (263, 61557), (279, 61623), (286, 61644), (287, 61647), (296, 61674), (318, 61728), (341, 61797), (366, 61869), (386, 61929), (397, 61953), (414, 61986), (449, 62058), (498, 62226), (511, 62274), (512, 62277), (521, 62313), (546, 62394), (567, 62499), (574, 62541), (581, 62565), (584, 62580), (604, 62640), (609, 62655), (610, 62658), (619, 62688), (633, 62760), (658, 62859), (672, 62901), (686, 62934), (689, 62949), (700, 62985), (709, 63012), (714, 63027), (720, 63045), (725, 63066), (729, 63081), (733, 63087), (790, 63210), (800, 63231), (823, 63267), (825, 63270),

Gene: Rumi_87 Start: 57838, Stop: 60543, Start Num: 39
Candidate Starts for Rumi_87:
(Start: 39 @57838 has 40 MA's), (62, 57928), (129, 58246), (152, 58411), (190, 58534), (191, 58540), (193, 58546), (203, 58585), (217, 58624), (224, 58645), (227, 58672), (234, 58699), (239, 58732), (254, 58774), (263, 58807), (279, 58873), (286, 58894), (287, 58897), (296, 58924), (358, 59071), (414, 59203), (455, 59278), (468, 59323), (480, 59347), (494, 59386), (501, 59422), (505, 59437), (508, 59449), (520, 59494), (528, 59521), (529, 59524), (552, 59617), (563, 59659), (567, 59686), (582, 59761), (587, 59779), (593, 59788), (597, 59791), (607, 59842), (627, 59920), (629, 59935), (657, 60046), (667, 60067), (688, 60127), (693, 60154), (733, 60274), (750, 60307), (800, 60415), (809, 60427), (850, 60511), (852, 60514),

Gene: Sadboi_88 Start: 60111, Stop: 62882, Start Num: 39
Candidate Starts for Sadboi_88:
(Start: 39 @60111 has 40 MA's), (62, 60201), (129, 60519), (152, 60684), (190, 60807), (191, 60813), (193, 60819), (203, 60858), (217, 60897), (224, 60918), (227, 60945), (234, 60972), (239, 61005), (254, 61047), (255, 61050), (263, 61080), (279, 61146), (286, 61167), (287, 61170), (296, 61197), (318, 61251), (341, 61320), (366, 61392), (386, 61452), (397, 61476), (414, 61509), (449, 61581), (498, 61749), (511, 61797), (512, 61800), (521, 61836), (546, 61917), (567, 62022), (574, 62064), (581, 62088), (584, 62103), (604, 62163), (609, 62178), (610, 62181), (619, 62211), (633, 62283), (658, 62382), (672, 62424), (686, 62457), (689, 62472), (700, 62508), (709, 62535), (714, 62550), (720, 62568), (725, 62589), (733, 62610), (790, 62733), (800, 62754), (823, 62790), (825, 62793),

Gene: Sampudon_90 Start: 61026, Stop: 63749, Start Num: 39
Candidate Starts for Sampudon_90:
(Start: 39 @61026 has 40 MA's), (86, 61254), (113, 61326), (168, 61581), (174, 61599), (177, 61614), (182, 61638), (190, 61659), (196, 61686), (210, 61725), (214, 61737), (234, 61821), (235, 61824), (296, 62079), (345, 62214), (348, 62220), (419, 62400), (468, 62529), (506, 62649), (555, 62838), (557, 62847), (558, 62850), (563, 62862), (567, 62889), (573, 62928), (575, 62934), (578, 62946), (581, 62955), (587, 62982), (602, 63024), (619, 63081), (622, 63093), (647, 63210), (689, 63339), (717, 63426), (733, 63477), (789, 63588), (800, 63615), (810, 63636), (836, 63687),

Gene: Scuba_60 Start: 42354, Stop: 39820, Start Num: 44
Candidate Starts for Scuba_60:
(Start: 44 @42354 has 44 MA's), (63, 42279), (86, 42171), (107, 42120), (144, 41910), (168, 41832), (187, 41760), (214, 41673), (225, 41634), (227, 41613), (228, 41610), (236, 41580), (245, 41535), (252, 41511), (265, 41460), (298, 41337), (346, 41241), (396, 41118), (406, 41103), (421, 41070), (442, 41034), (479, 40944), (481, 40938), (519, 40803), (557, 40662), (564, 40644), (587, 40527), (599, 40488), (607, 40455), (622, 40407), (632, 40347), (638, 40329), (646, 40299), (657, 40251), (666, 40230), (674, 40209), (687, 40170), (697, 40131), (704, 40110), (725, 40044), (777, 39942),

(783, 39924), (788, 39915), (800, 39885), (811, 39861),

Gene: Send513_89 Start: 65266, Stop: 68013, Start Num: 41
Candidate Starts for Send513_89:
(Start: 41 @65266 has 9 MA's), (55, 65317), (58, 65329), (62, 65353), (132, 65710), (133, 65722), (141, 65773), (144, 65791), (146, 65803), (150, 65818), (168, 65887), (178, 65929), (189, 65965), (191, 65974), (210, 66037), (214, 66049), (224, 66082), (234, 66136), (344, 66472), (365, 66517), (373, 66541), (374, 66544), (379, 66565), (383, 66574), (416, 66643), (448, 66715), (455, 66751), (461, 66763), (474, 66799), (484, 66826), (486, 66829), (490, 66838), (494, 66850), (499, 66877), (511, 66922), (520, 66958), (525, 66973), (548, 67039), (565, 67120), (567, 67138), (571, 67147), (572, 67153), (576, 67186), (577, 67189), (609, 67291), (610, 67294), (612, 67297), (627, 67363), (633, 67396), (647, 67450), (649, 67459), (656, 67486), (682, 67555), (687, 67573), (689, 67585), (696, 67609), (698, 67612), (705, 67630), (717, 67666), (728, 67708), (757, 67765), (779, 67819), (826, 67921), (861, 67996),

Gene: Sienna_83 Start: 56989, Stop: 59850, Start Num: 40
Candidate Starts for Sienna_83:
(Start: 40 @56989 has 31 MA's), (60, 57061), (86, 57208), (113, 57385), (143, 57544), (144, 57547), (151, 57583), (155, 57616), (175, 57679), (185, 57715), (225, 57838), (259, 57961), (270, 57997), (283, 58054), (288, 58081), (292, 58099), (299, 58126), (320, 58180), (415, 58474), (418, 58492), (430, 58513), (445, 58552), (447, 58567), (459, 58621), (462, 58630), (492, 58708), (501, 58750), (525, 58837), (526, 58840), (544, 58894), (558, 58966), (560, 58972), (574, 59047), (578, 59062), (607, 59158), (622, 59209), (627, 59239), (628, 59251), (640, 59293), (643, 59302), (649, 59335), (653, 59347), (663, 59380), (665, 59383), (679, 59425), (680, 59428), (690, 59464), (727, 59551), (740, 59575), (742, 59584), (808, 59716), (845, 59797), (857, 59821),

Gene: SirHarley_90 Start: 61432, Stop: 64365, Start Num: 40
Candidate Starts for SirHarley_90:
(Start: 40 @61432 has 31 MA's), (79, 61615), (123, 61825), (134, 61870), (161, 62023), (182, 62110), (191, 62143), (196, 62164), (199, 62179), (202, 62188), (214, 62227), (236, 62320), (241, 62356), (245, 62365), (267, 62440), (269, 62452), (280, 62503), (282, 62512), (321, 62656), (349, 62779), (357, 62803), (371, 62839), (383, 62875), (408, 62929), (410, 62935), (420, 62977), (437, 63013), (453, 63079), (494, 63187), (497, 63196), (505, 63238), (510, 63256), (518, 63286), (534, 63334), (549, 63397), (553, 63418), (568, 63484), (585, 63565), (609, 63640), (618, 63670), (622, 63685), (627, 63715), (640, 63769), (653, 63823), (656, 63838), (657, 63841), (658, 63844), (671, 63883), (673, 63892), (687, 63922), (693, 63952), (709, 63997), (723, 64039), (727, 64063), (735, 64078), (754, 64117), (772, 64159), (776, 64168), (796, 64216), (857, 64342), (858, 64348),

Gene: Skysand_55 Start: 43591, Stop: 41030, Start Num: 44
Candidate Starts for Skysand_55:
(24, 43657), (Start: 44 @43591 has 44 MA's), (56, 43564), (63, 43516), (86, 43408), (178, 43003), (187, 42973), (214, 42883), (225, 42844), (227, 42823), (228, 42820), (234, 42796), (245, 42745), (268, 42652), (277, 42607), (278, 42604), (298, 42547), (346, 42451), (396, 42328), (470, 42172), (479, 42154), (481, 42148), (484, 42139), (504, 42067), (555, 41887), (564, 41860), (599, 41704), (607, 41671), (622, 41623), (631, 41566), (632, 41563), (638, 41545), (646, 41515), (657, 41467), (666, 41446), (668, 41440), (674, 41425), (687, 41386), (716, 41296), (726, 41251), (749, 41215), (788, 41134), (802, 41098), (811, 41080),

Gene: StarStruck_54 Start: 43113, Stop: 40543, Start Num: 44
Candidate Starts for StarStruck_54:
(22, 43188), (24, 43179), (Start: 44 @43113 has 44 MA's), (86, 42933), (168, 42564), (172, 42549), (178, 42522), (214, 42405), (225, 42366), (228, 42342), (277, 42129), (305, 42054), (307, 42051), (345, 41976), (346, 41973), (382, 41883), (395, 41853), (406, 41835), (454, 41748), (455, 41745),

(462, 41721), (479, 41676), (481, 41670), (484, 41661), (504, 41589), (515, 41550), (535, 41484), (564, 41373), (587, 41256), (591, 41247), (599, 41217), (601, 41208), (609, 41181), (622, 41136), (627, 41106), (631, 41079), (632, 41076), (633, 41073), (638, 41058), (646, 41028), (657, 40980), (684, 40908), (687, 40899), (697, 40860), (704, 40839), (708, 40827), (726, 40764), (744, 40734), (752, 40722), (788, 40644), (795, 40626),

Gene: Stickynote_40 Start: 37433, Stop: 34890, Start Num: 52
Candidate Starts for Stickynote_40:
(25, 37514), (32, 37490), (51, 37436), (Start: 52 @37433 has 8 MA's), (72, 37322), (86, 37256), (104, 37232), (110, 37190), (114, 37169), (122, 37112), (138, 37031), (139, 37028), (149, 36986), (172, 36914), (213, 36749), (214, 36737), (228, 36674), (235, 36647), (250, 36584), (287, 36434), (298, 36404), (346, 36326), (391, 36212), (404, 36188), (431, 36134), (460, 36077), (463, 36068), (486, 36008), (491, 35996), (503, 35942), (516, 35897), (518, 35882), (521, 35873), (528, 35849), (530, 35840), (535, 35828), (566, 35696), (570, 35684), (577, 35639), (586, 35606), (601, 35555), (604, 35543), (607, 35531), (619, 35495), (693, 35213), (712, 35159), (747, 35072), (763, 35036), (769, 35024), (787, 34982), (817, 34922),

Gene: Stormer_87 Start: 57952, Stop: 60723, Start Num: 39
Candidate Starts for Stormer_87:
(Start: 39 @57952 has 40 MA's), (62, 58042), (129, 58360), (190, 58648), (191, 58654), (193, 58660), (203, 58699), (217, 58738), (227, 58786), (234, 58813), (239, 58846), (254, 58888), (255, 58891), (263, 58921), (279, 58987), (286, 59008), (287, 59011), (296, 59038), (318, 59092), (341, 59161), (366, 59233), (386, 59293), (397, 59317), (414, 59350), (449, 59422), (498, 59590), (500, 59596), (511, 59638), (521, 59677), (546, 59758), (567, 59863), (574, 59905), (581, 59929), (584, 59944), (604, 60004), (609, 60019), (610, 60022), (619, 60052), (633, 60124), (653, 60202), (658, 60223), (672, 60265), (686, 60298), (689, 60313), (700, 60349), (709, 60376), (711, 60382), (714, 60391), (720, 60409), (725, 60430), (729, 60445), (733, 60451), (790, 60574), (800, 60595), (823, 60631),

Gene: Studio_35 Start: 23029, Stop: 20882, Start Num: 148
Candidate Starts for Studio_35:
(126, 23152), (Start: 136 @23083 has 11 MA's), (148, 23029), (235, 22669), (340, 22354), (343, 22339), (408, 22171), (440, 22108), (486, 21988), (500, 21937), (529, 21838), (556, 21727), (578, 21625), (592, 21577), (608, 21523), (624, 21457), (627, 21439), (652, 21337), (692, 21211), (713, 21157), (727, 21103), (746, 21064), (773, 21004), (779, 20989), (792, 20959),

Gene: Sukkupi_53 Start: 41555, Stop: 39003, Start Num: 44
Candidate Starts for Sukkupi_53:
(31, 41600), (Start: 44 @41555 has 44 MA's), (63, 41477), (80, 41396), (86, 41366), (92, 41342), (107, 41315), (214, 40868), (225, 40829), (227, 40808), (228, 40805), (305, 40514), (310, 40499), (346, 40433), (479, 40136), (481, 40130), (484, 40121), (504, 40049), (555, 39860), (557, 39851), (577, 39755), (585, 39725), (587, 39716), (599, 39677), (601, 39668), (607, 39644), (609, 39641), (622, 39596), (632, 39536), (633, 39533), (638, 39518), (646, 39488), (653, 39458), (657, 39440), (670, 39404), (691, 39335), (697, 39320), (706, 39293), (724, 39239), (726, 39224), (751, 39185), (775, 39134), (788, 39104),

Gene: SuperSonics_107 Start: 65940, Stop: 68648, Start Num: 42
Candidate Starts for SuperSonics_107:
(Start: 42 @65940 has 4 MA's), (46, 65955), (48, 65958), (62, 66021), (63, 66033), (159, 66486), (167, 66501), (172, 66525), (182, 66567), (183, 66573), (191, 66597), (214, 66678), (222, 66705), (247, 66825), (258, 66864), (271, 66918), (287, 66990), (298, 67020), (301, 67026), (323, 67068), (332, 67083), (338, 67092), (350, 67143), (362, 67173), (373, 67200), (406, 67278), (450, 67386), (466, 67434), (494, 67506), (500, 67536), (505, 67557), (513, 67587), (518, 67611), (536, 67662), (553, 67710), (558, 67734), (563, 67746), (574, 67815), (657, 68133), (674, 68181), (683, 68196), (685,

68205), (687, 68211), (688, 68214), (693, 68241), (699, 68253), (702, 68262), (717, 68304), (724, 68328), (734, 68355), (755, 68397), (758, 68403), (784, 68466), (792, 68481), (796, 68490), (842, 68589), (864, 68640),

Gene: SuperSulley_54 Start: 43281, Stop: 40711, Start Num: 44
Candidate Starts for SuperSulley_54:
(Start: 44 @43281 has 44 MA's), (86, 43101), (147, 42819), (168, 42732), (172, 42717), (178, 42690), (214, 42573), (225, 42534), (228, 42510), (277, 42297), (305, 42222), (307, 42219), (345, 42144), (346, 42141), (382, 42051), (406, 42003), (422, 41964), (454, 41916), (462, 41889), (479, 41844), (481, 41838), (504, 41757), (515, 41718), (535, 41652), (564, 41541), (587, 41424), (591, 41415), (599, 41385), (601, 41376), (609, 41349), (622, 41304), (627, 41274), (631, 41247), (632, 41244), (633, 41241), (638, 41226), (646, 41196), (657, 41148), (670, 41112), (684, 41076), (687, 41067), (697, 41028), (704, 41007), (708, 40995), (726, 40932), (744, 40902), (788, 40812), (795, 40794),

Gene: SuperheroCarly_87 Start: 61163, Stop: 64114, Start Num: 40
Candidate Starts for SuperheroCarly_87:
(Start: 40 @61163 has 31 MA's), (79, 61346), (123, 61556), (134, 61601), (161, 61754), (182, 61841), (191, 61874), (196, 61895), (199, 61910), (202, 61919), (214, 61958), (241, 62087), (245, 62096), (267, 62171), (269, 62183), (280, 62234), (282, 62243), (321, 62387), (349, 62510), (357, 62534), (371, 62570), (383, 62606), (408, 62660), (410, 62666), (420, 62708), (437, 62744), (453, 62810), (494, 62936), (497, 62945), (505, 62987), (510, 63005), (534, 63083), (549, 63146), (553, 63167), (568, 63233), (585, 63314), (609, 63389), (618, 63419), (622, 63434), (627, 63464), (640, 63518), (653, 63572), (656, 63587), (657, 63590), (658, 63593), (671, 63632), (673, 63641), (687, 63671), (693, 63701), (709, 63746), (723, 63788), (727, 63812), (735, 63827), (754, 63866), (772, 63908), (776, 63917), (796, 63965), (857, 64091), (858, 64097),

Gene: Suzy_81 Start: 57365, Stop: 60250, Start Num: 40
Candidate Starts for Suzy_81:
(Start: 40 @57365 has 31 MA's), (60, 57437), (86, 57584), (143, 57917), (144, 57920), (151, 57956), (155, 57989), (176, 58064), (191, 58124), (225, 58241), (259, 58364), (270, 58400), (283, 58457), (288, 58484), (292, 58502), (299, 58529), (320, 58583), (418, 58895), (445, 58955), (447, 58970), (459, 59024), (492, 59111), (496, 59123), (501, 59153), (525, 59240), (526, 59243), (544, 59297), (558, 59369), (560, 59375), (574, 59450), (578, 59465), (581, 59474), (607, 59561), (622, 59612), (627, 59642), (628, 59654), (640, 59696), (643, 59705), (649, 59738), (653, 59750), (663, 59783), (665, 59786), (679, 59828), (690, 59867), (715, 59921), (727, 59954), (740, 59978), (742, 59987), (780, 60059), (784, 60065), (808, 60119), (835, 60182), (845, 60200), (857, 60224),

Gene: TMaxx_34 Start: 22370, Stop: 20184, Start Num: 136
Candidate Starts for TMaxx_34:
(Start: 136 @22370 has 11 MA's), (208, 22055), (233, 21962), (248, 21911), (340, 21644), (453, 21389), (457, 21377), (462, 21359), (467, 21341), (500, 21239), (529, 21140), (544, 21095), (556, 21029), (578, 20927), (592, 20879), (627, 20741), (652, 20639), (662, 20603), (679, 20564), (692, 20513), (713, 20459), (727, 20405), (746, 20366), (773, 20306), (779, 20291), (792, 20261),

Gene: Terapin_84 Start: 56925, Stop: 59786, Start Num: 40
Candidate Starts for Terapin_84:
(Start: 40 @56925 has 31 MA's), (60, 56997), (86, 57144), (113, 57321), (143, 57480), (144, 57483), (151, 57519), (155, 57552), (175, 57615), (185, 57651), (225, 57774), (259, 57897), (270, 57933), (283, 57990), (288, 58017), (292, 58035), (299, 58062), (320, 58116), (415, 58410), (418, 58428), (430, 58449), (445, 58488), (447, 58503), (459, 58557), (462, 58566), (492, 58644), (501, 58686), (525, 58773), (526, 58776), (544, 58830), (558, 58902), (560, 58908), (574, 58983), (578, 58998), (607, 59094), (622, 59145), (627, 59175), (628, 59187), (640, 59229), (643, 59238), (649, 59271), (653, 59283), (663, 59316), (665, 59319), (679, 59361), (680, 59364), (690, 59400), (727, 59487),

(740, 59511), (742, 59520), (808, 59652), (845, 59733), (857, 59757),

Gene: Thoth_88 Start: 61237, Stop: 64179, Start Num: 40
Candidate Starts for Thoth_88:
(Start: 40 @61237 has 31 MA's), (79, 61420), (123, 61630), (134, 61675), (161, 61828), (182, 61915), (191, 61948), (196, 61969), (199, 61984), (214, 62032), (241, 62161), (245, 62170), (267, 62245), (269, 62257), (280, 62308), (282, 62317), (321, 62461), (349, 62584), (371, 62644), (383, 62680), (408, 62734), (410, 62740), (420, 62782), (437, 62818), (453, 62884), (494, 63001), (497, 63010), (505, 63052), (510, 63070), (518, 63100), (534, 63148), (549, 63211), (553, 63232), (568, 63298), (585, 63379), (609, 63454), (618, 63484), (622, 63499), (627, 63529), (640, 63583), (653, 63637), (656, 63652), (657, 63655), (658, 63658), (671, 63697), (673, 63706), (687, 63736), (693, 63766), (700, 63784), (709, 63811), (723, 63853), (727, 63877), (735, 63892), (754, 63931), (772, 63973), (776, 63982), (796, 64030), (857, 64156), (858, 64162),

Gene: Thumb_93 Start: 64678, Stop: 67614, Start Num: 38
Candidate Starts for Thumb_93:
(9, 64540), (11, 64564), (12, 64570), (15, 64588), (20, 64606), (22, 64624), (Start: 29 @64651 has 1 MA's), (Start: 36 @64672 has 2 MA's), (Start: 38 @64678 has 15 MA's), (54, 64732), (61, 64768), (86, 64903), (115, 65041), (167, 65302), (182, 65368), (191, 65398), (205, 65458), (211, 65488), (214, 65515), (255, 65680), (275, 65767), (284, 65800), (285, 65821), (287, 65827), (294, 65854), (306, 65884), (312, 65902), (315, 65908), (331, 65998), (341, 66037), (444, 66307), (476, 66406), (506, 66511), (508, 66517), (513, 66532), (533, 66601), (539, 66625), (548, 66646), (556, 66691), (558, 66697), (569, 66742), (574, 66778), (584, 66817), (607, 66889), (609, 66892), (610, 66895), (622, 66937), (631, 66997), (633, 67003), (634, 67012), (646, 67048), (657, 67096), (662, 67111), (679, 67156), (687, 67180), (728, 67315), (759, 67378), (781, 67429), (794, 67453), (810, 67489), (841, 67555),

Gene: Tillicus_82 Start: 59535, Stop: 62240, Start Num: 39
Candidate Starts for Tillicus_82:
(Start: 39 @59535 has 40 MA's), (62, 59625), (89, 59772), (138, 60021), (139, 60024), (190, 60231), (191, 60237), (193, 60243), (197, 60261), (203, 60282), (217, 60321), (224, 60342), (227, 60369), (254, 60471), (255, 60474), (263, 60504), (279, 60570), (286, 60591), (287, 60594), (296, 60621), (358, 60768), (414, 60900), (455, 60975), (468, 61020), (480, 61044), (494, 61083), (505, 61134), (508, 61146), (520, 61191), (528, 61218), (529, 61221), (552, 61314), (563, 61356), (567, 61383), (587, 61476), (593, 61485), (597, 61488), (607, 61539), (629, 61632), (657, 61743), (667, 61764), (688, 61824), (693, 61851), (718, 61923), (733, 61971), (750, 62004), (800, 62112), (850, 62208), (852, 62211),

Gene: Tracker_52 Start: 41920, Stop: 39374, Start Num: 44
Candidate Starts for Tracker_52:
(Start: 44 @41920 has 44 MA's), (63, 41848), (86, 41740), (156, 41419), (187, 41329), (197, 41296), (214, 41242), (225, 41203), (227, 41182), (228, 41179), (245, 41104), (262, 41038), (305, 40888), (309, 40876), (346, 40807), (382, 40717), (406, 40669), (417, 40642), (442, 40600), (479, 40510), (481, 40504), (484, 40495), (514, 40387), (557, 40225), (577, 40129), (599, 40051), (601, 40042), (609, 40015), (622, 39970), (627, 39940), (638, 39892), (646, 39862), (657, 39814), (684, 39742), (687, 39733), (704, 39673), (706, 39667), (708, 39661), (726, 39598), (777, 39505), (783, 39487), (788, 39478), (802, 39442), (820, 39409),

Gene: TripleC_34 Start: 24714, Stop: 22528, Start Num: 136
Candidate Starts for TripleC_34:
(Start: 136 @24714 has 11 MA's), (208, 24399), (209, 24396), (231, 24315), (233, 24306), (240, 24279), (248, 24255), (263, 24198), (334, 24009), (338, 24003), (340, 23988), (455, 23727), (462, 23703), (500, 23583), (529, 23484), (539, 23448), (556, 23373), (578, 23271), (592, 23223), (623,

23112), (624, 23103), (627, 23085), (652, 22983), (662, 22947), (671, 22920), (679, 22908), (692, 22857), (703, 22830), (713, 22803), (727, 22749), (746, 22710), (773, 22650), (779, 22635), (792, 22605), (793, 22602),

Gene: Troll4_88 Start: 61244, Stop: 64192, Start Num: 40
Candidate Starts for Troll4_88:
(Start: 40 @61244 has 31 MA's), (79, 61427), (123, 61637), (134, 61682), (161, 61835), (182, 61922), (191, 61955), (196, 61976), (199, 61991), (202, 62000), (214, 62039), (241, 62168), (245, 62177), (267, 62252), (269, 62264), (280, 62315), (282, 62324), (321, 62468), (349, 62591), (371, 62651), (383, 62687), (408, 62741), (410, 62747), (420, 62789), (437, 62825), (453, 62891), (494, 63014), (497, 63023), (505, 63065), (510, 63083), (518, 63113), (534, 63161), (549, 63224), (568, 63311), (585, 63392), (609, 63467), (618, 63497), (622, 63512), (627, 63542), (640, 63596), (653, 63650), (656, 63665), (657, 63668), (658, 63671), (671, 63710), (673, 63719), (687, 63749), (693, 63779), (700, 63797), (709, 63824), (723, 63866), (727, 63890), (735, 63905), (754, 63944), (772, 63986), (776, 63995), (796, 64043), (857, 64169), (858, 64175),

Gene: Turuncu_57 Start: 43522, Stop: 40961, Start Num: 44
Candidate Starts for Turuncu_57:
(17, 43648), (24, 43588), (Start: 44 @43522 has 44 MA's), (86, 43339), (88, 43330), (129, 43156), (146, 43066), (151, 43042), (178, 42937), (214, 42817), (225, 42778), (227, 42757), (228, 42754), (245, 42679), (298, 42481), (346, 42385), (442, 42178), (470, 42106), (479, 42088), (481, 42082), (484, 42073), (504, 42001), (555, 41821), (564, 41794), (599, 41638), (609, 41602), (622, 41557), (627, 41527), (631, 41500), (632, 41497), (638, 41479), (646, 41449), (655, 41407), (657, 41401), (674, 41359), (680, 41341), (708, 41248), (716, 41230), (724, 41200), (726, 41185), (788, 41068), (811, 41014),

Gene: Visconti_89 Start: 61201, Stop: 64143, Start Num: 40
Candidate Starts for Visconti_89:
(Start: 40 @61201 has 31 MA's), (79, 61384), (123, 61594), (134, 61639), (161, 61792), (182, 61879), (191, 61912), (196, 61933), (199, 61948), (214, 61996), (236, 62089), (241, 62125), (245, 62134), (267, 62209), (269, 62221), (280, 62272), (282, 62281), (321, 62425), (349, 62548), (357, 62572), (371, 62608), (383, 62644), (408, 62698), (410, 62704), (420, 62746), (437, 62782), (453, 62848), (494, 62965), (497, 62974), (505, 63016), (510, 63034), (534, 63112), (549, 63175), (553, 63196), (568, 63262), (585, 63343), (609, 63418), (618, 63448), (622, 63463), (627, 63493), (640, 63547), (653, 63601), (656, 63616), (657, 63619), (658, 63622), (671, 63661), (673, 63670), (687, 63700), (693, 63730), (700, 63748), (709, 63775), (723, 63817), (727, 63841), (735, 63856), (754, 63895), (772, 63937), (776, 63946), (796, 63994), (857, 64120), (858, 64126),

Gene: WaldoWhy_89 Start: 61161, Stop: 64103, Start Num: 40
Candidate Starts for WaldoWhy_89:
(Start: 40 @61161 has 31 MA's), (79, 61344), (123, 61554), (134, 61599), (161, 61752), (182, 61839), (191, 61872), (196, 61893), (199, 61908), (214, 61956), (236, 62049), (241, 62085), (245, 62094), (267, 62169), (269, 62181), (280, 62232), (282, 62241), (321, 62385), (349, 62508), (357, 62532), (371, 62568), (383, 62604), (408, 62658), (410, 62664), (420, 62706), (437, 62742), (453, 62808), (494, 62925), (497, 62934), (510, 62994), (521, 63033), (534, 63072), (549, 63135), (553, 63156), (568, 63222), (585, 63303), (609, 63378), (618, 63408), (622, 63423), (627, 63453), (640, 63507), (653, 63561), (656, 63576), (657, 63579), (658, 63582), (671, 63621), (673, 63630), (687, 63660), (693, 63690), (709, 63735), (723, 63777), (727, 63801), (735, 63816), (754, 63855), (772, 63897), (776, 63906), (796, 63954), (857, 64080), (858, 64086),

Gene: Weiss13_91 Start: 65123, Stop: 67870, Start Num: 41
Candidate Starts for Weiss13_91:

(Start: 38 @65117 has 15 MA's), (Start: 41 @65123 has 9 MA's), (55, 65174), (58, 65186), (62, 65210), (132, 65567), (133, 65579), (141, 65630), (144, 65648), (146, 65660), (150, 65675), (168, 65744), (178, 65786), (189, 65822), (191, 65831), (210, 65894), (214, 65906), (224, 65939), (234, 65993), (344, 66329), (365, 66374), (373, 66398), (374, 66401), (379, 66422), (383, 66431), (416, 66500), (448, 66572), (455, 66608), (461, 66620), (474, 66656), (484, 66683), (486, 66686), (490, 66695), (494, 66707), (499, 66734), (507, 66764), (511, 66779), (520, 66815), (525, 66830), (548, 66896), (565, 66977), (567, 66995), (571, 67004), (572, 67010), (576, 67043), (577, 67046), (609, 67148), (610, 67151), (612, 67154), (627, 67220), (633, 67253), (647, 67307), (649, 67316), (656, 67343), (682, 67412), (687, 67430), (689, 67442), (696, 67466), (698, 67469), (701, 67478), (705, 67487), (717, 67523), (728, 67565), (757, 67622), (779, 67676), (826, 67778), (861, 67853),

Gene: Wheezy_52 Start: 42128, Stop: 39579, Start Num: 44
Candidate Starts for Wheezy_52:
(Start: 44 @42128 has 44 MA's), (63, 42056), (86, 41948), (117, 41822), (156, 41624), (169, 41597), (187, 41534), (197, 41501), (214, 41447), (225, 41408), (227, 41387), (228, 41384), (262, 41243), (305, 41093), (309, 41081), (346, 41012), (382, 40922), (406, 40874), (417, 40847), (442, 40805), (479, 40715), (481, 40709), (484, 40700), (514, 40592), (557, 40430), (577, 40334), (599, 40256), (601, 40247), (609, 40220), (627, 40145), (638, 40097), (646, 40067), (657, 40019), (684, 39947), (687, 39938), (704, 39878), (706, 39872), (708, 39866), (726, 39803), (777, 39710), (783, 39692), (788, 39683), (802, 39647), (820, 39614),

Gene: WhoseManz_53 Start: 39612, Stop: 37063, Start Num: 44
Candidate Starts for WhoseManz_53:
(Start: 44 @39612 has 44 MA's), (63, 39534), (86, 39426), (92, 39402), (116, 39309), (214, 38928), (225, 38889), (252, 38766), (305, 38574), (310, 38559), (346, 38493), (479, 38196), (481, 38190), (504, 38109), (555, 37920), (557, 37911), (587, 37776), (599, 37737), (607, 37704), (609, 37701), (622, 37656), (632, 37596), (633, 37593), (638, 37578), (646, 37548), (656, 37503), (657, 37500), (670, 37464), (691, 37395), (697, 37380), (704, 37359), (724, 37299), (726, 37284), (751, 37245), (775, 37194), (788, 37164),

Gene: Wojtek_81 Start: 60132, Stop: 62855, Start Num: 39
Candidate Starts for Wojtek_81:
(Start: 39 @60132 has 40 MA's), (86, 60360), (113, 60432), (168, 60687), (177, 60720), (182, 60744), (190, 60765), (196, 60792), (210, 60831), (214, 60843), (234, 60927), (235, 60930), (296, 61185), (345, 61320), (348, 61326), (419, 61506), (468, 61635), (506, 61755), (546, 61890), (555, 61944), (557, 61953), (558, 61956), (563, 61968), (567, 61995), (573, 62034), (575, 62040), (578, 62052), (581, 62061), (587, 62088), (602, 62130), (619, 62187), (622, 62199), (647, 62316), (689, 62445), (717, 62532), (733, 62583), (789, 62694), (800, 62721), (810, 62742), (836, 62793),

Gene: Wyvern_46 Start: 32534, Stop: 29901, Start Num: 105
Candidate Starts for Wyvern_46:
(92, 32585), (95, 32573), (96, 32570), (Start: 105 @32534 has 1 MA's), (124, 32387), (125, 32378), (196, 32030), (201, 32009), (246, 31835), (254, 31814), (257, 31799), (260, 31784), (263, 31772), (272, 31730), (297, 31652), (300, 31640), (387, 31403), (409, 31361), (442, 31280), (465, 31229), (525, 31037), (532, 31019), (547, 30971), (553, 30932), (566, 30881), (570, 30869), (577, 30824), (603, 30740), (606, 30731), (611, 30719), (629, 30626), (637, 30596), (647, 30557), (659, 30515), (719, 30341), (723, 30329), (748, 30263), (753, 30254), (760, 30239), (814, 30116), (815, 30110), (825, 30089), (834, 30068), (869, 29972),

Gene: Xenia2_91 Start: 60492, Stop: 63191, Start Num: 39
Candidate Starts for Xenia2_91:
(Start: 39 @60492 has 40 MA's), (86, 60723), (113, 60795), (119, 60828), (168, 61050), (182, 61107), (190, 61128), (191, 61134), (196, 61155), (210, 61194), (214, 61206), (224, 61239), (235, 61293),

(239, 61329), (251, 61371), (296, 61548), (350, 61677), (361, 61704), (377, 61752), (388, 61779), (397, 61797), (413, 61830), (454, 61878), (475, 61938), (497, 62001), (501, 62028), (519, 62097), (520, 62100), (521, 62103), (562, 62268), (567, 62298), (574, 62340), (578, 62355), (581, 62364), (601, 62430), (602, 62433), (604, 62442), (616, 62472), (632, 62565), (634, 62577), (653, 62643), (667, 62685), (672, 62709), (675, 62721), (678, 62730), (686, 62754), (693, 62787), (707, 62829), (720, 62865), (729, 62901), (789, 63030), (800, 63057), (819, 63093), (837, 63135), (857, 63168),

Gene: Yelo_88 Start: 65158, Stop: 67905, Start Num: 41
Candidate Starts for Yelo_88:
(Start: 41 @65158 has 9 MA's), (55, 65209), (58, 65221), (62, 65245), (113, 65497), (132, 65602), (133, 65614), (144, 65683), (146, 65695), (150, 65710), (168, 65779), (178, 65821), (189, 65857), (191, 65866), (210, 65929), (214, 65941), (224, 65974), (234, 66028), (344, 66364), (365, 66409), (373, 66433), (374, 66436), (379, 66457), (383, 66466), (416, 66535), (448, 66607), (455, 66643), (461, 66655), (474, 66691), (484, 66718), (486, 66721), (490, 66730), (494, 66742), (499, 66769), (507, 66799), (511, 66814), (520, 66850), (525, 66865), (548, 66931), (565, 67012), (567, 67030), (571, 67039), (572, 67045), (576, 67078), (577, 67081), (609, 67183), (610, 67186), (612, 67189), (627, 67255), (633, 67288), (647, 67342), (649, 67351), (656, 67378), (682, 67447), (687, 67465), (689, 67477), (698, 67504), (705, 67522), (717, 67558), (728, 67600), (757, 67657), (779, 67711), (826, 67813), (861, 67888),

Gene: Yikes_89 Start: 60657, Stop: 63332, Start Num: 39
Candidate Starts for Yikes_89:
(Start: 39 @60657 has 40 MA's), (143, 61134), (144, 61137), (168, 61218), (191, 61302), (210, 61362), (214, 61374), (221, 61398), (228, 61434), (271, 61608), (276, 61638), (296, 61689), (350, 61818), (361, 61845), (397, 61938), (413, 61971), (423, 61974), (428, 61980), (454, 62019), (464, 62052), (489, 62115), (497, 62142), (501, 62169), (519, 62238), (520, 62241), (525, 62256), (543, 62322), (548, 62349), (567, 62439), (574, 62481), (578, 62496), (585, 62523), (601, 62571), (607, 62595), (616, 62613), (622, 62643), (632, 62706), (653, 62784), (657, 62802), (667, 62826), (672, 62850), (675, 62862), (689, 62910), (693, 62928), (720, 63006), (733, 63048), (789, 63171), (800, 63198), (837, 63276),

Gene: Yndexa_53 Start: 41555, Stop: 39003, Start Num: 44
Candidate Starts for Yndexa_53:
(31, 41600), (Start: 44 @41555 has 44 MA's), (63, 41477), (80, 41396), (86, 41366), (92, 41342), (107, 41315), (214, 40868), (225, 40829), (227, 40808), (228, 40805), (305, 40514), (310, 40499), (346, 40433), (479, 40136), (481, 40130), (484, 40121), (504, 40049), (555, 39860), (557, 39851), (577, 39755), (585, 39725), (587, 39716), (599, 39677), (601, 39668), (607, 39644), (609, 39641), (622, 39596), (632, 39536), (633, 39533), (638, 39518), (646, 39488), (653, 39458), (657, 39440), (670, 39404), (691, 39335), (697, 39320), (706, 39293), (724, 39239), (726, 39224), (751, 39185), (775, 39134), (788, 39104),

Gene: Zany_87 Start: 60891, Stop: 63566, Start Num: 39
Candidate Starts for Zany_87:
(Start: 39 @60891 has 40 MA's), (143, 61368), (144, 61371), (168, 61452), (191, 61536), (210, 61596), (214, 61608), (221, 61632), (228, 61668), (271, 61842), (276, 61872), (296, 61923), (350, 62052), (361, 62079), (397, 62172), (413, 62205), (423, 62208), (428, 62214), (454, 62253), (464, 62286), (489, 62349), (497, 62376), (501, 62403), (519, 62472), (520, 62475), (525, 62490), (543, 62556), (548, 62583), (567, 62673), (574, 62715), (578, 62730), (585, 62757), (601, 62805), (607, 62829), (616, 62847), (622, 62877), (632, 62940), (653, 63018), (657, 63036), (667, 63060), (672, 63084), (675, 63096), (689, 63144), (693, 63162), (720, 63240), (733, 63282), (789, 63405), (800, 63432), (837, 63510),

Gene: Zenon_93 Start: 65443, Stop: 68196, Start Num: 38

Candidate Starts for Zenon_93:
(Start: 38 @65443 has 15 MA's), (Start: 41 @65449 has 9 MA's), (55, 65500), (58, 65512), (62, 65536), (113, 65788), (132, 65893), (141, 65956), (144, 65974), (146, 65986), (150, 66001), (168, 66070), (178, 66112), (189, 66148), (191, 66157), (210, 66220), (214, 66232), (224, 66265), (234, 66319), (344, 66655), (365, 66700), (373, 66724), (374, 66727), (379, 66748), (383, 66757), (416, 66826), (438, 66877), (448, 66898), (455, 66934), (461, 66946), (474, 66982), (484, 67009), (486, 67012), (490, 67021), (494, 67033), (499, 67060), (511, 67105), (520, 67141), (525, 67156), (548, 67222), (565, 67303), (567, 67321), (571, 67330), (572, 67336), (576, 67369), (577, 67372), (609, 67474), (610, 67477), (612, 67480), (627, 67546), (633, 67579), (647, 67633), (649, 67642), (656, 67669), (682, 67738), (687, 67756), (689, 67768), (705, 67813), (717, 67849), (728, 67891), (757, 67948), (779, 68002), (826, 68104), (861, 68179),

Gene: Zion_41 Start: 38011, Stop: 35468, Start Num: 52
Candidate Starts for Zion_41:
(32, 38068), (51, 38014), (Start: 52 @38011 has 8 MA's), (68, 37930), (69, 37921), (72, 37900), (86, 37834), (104, 37810), (110, 37768), (114, 37747), (122, 37690), (138, 37609), (139, 37606), (149, 37564), (172, 37492), (213, 37327), (214, 37315), (228, 37252), (235, 37225), (250, 37162), (287, 37012), (298, 36982), (346, 36904), (391, 36790), (404, 36766), (431, 36712), (460, 36655), (463, 36646), (486, 36586), (491, 36574), (503, 36520), (516, 36475), (518, 36460), (521, 36451), (528, 36427), (530, 36418), (535, 36406), (566, 36274), (570, 36262), (577, 36217), (586, 36184), (601, 36133), (604, 36121), (607, 36109), (693, 35791), (712, 35737), (763, 35614), (769, 35602), (787, 35560), (817, 35500),

Gene: Zooman_88 Start: 68194, Stop: 65549, Start Num: 83
Candidate Starts for Zooman_88:
(80, 68200), (81, 68197), (Start: 83 @68194 has 5 MA's), (102, 68095), (121, 67951), (122, 67945), (127, 67924), (144, 67816), (157, 67735), (171, 67693), (186, 67624), (188, 67618), (193, 67597), (194, 67594), (227, 67462), (235, 67432), (240, 67411), (249, 67384), (257, 67357), (261, 67339), (263, 67330), (272, 67288), (274, 67276), (336, 67117), (351, 67051), (359, 67033), (380, 66973), (393, 66943), (463, 66793), (498, 66682), (511, 66640), (516, 66625), (566, 66421), (567, 66418), (605, 66256), (611, 66241), (619, 66205), (623, 66190), (651, 66064), (672, 65992), (723, 65842), (724, 65836), (727, 65818), (768, 65731), (798, 65659), (804, 65644),