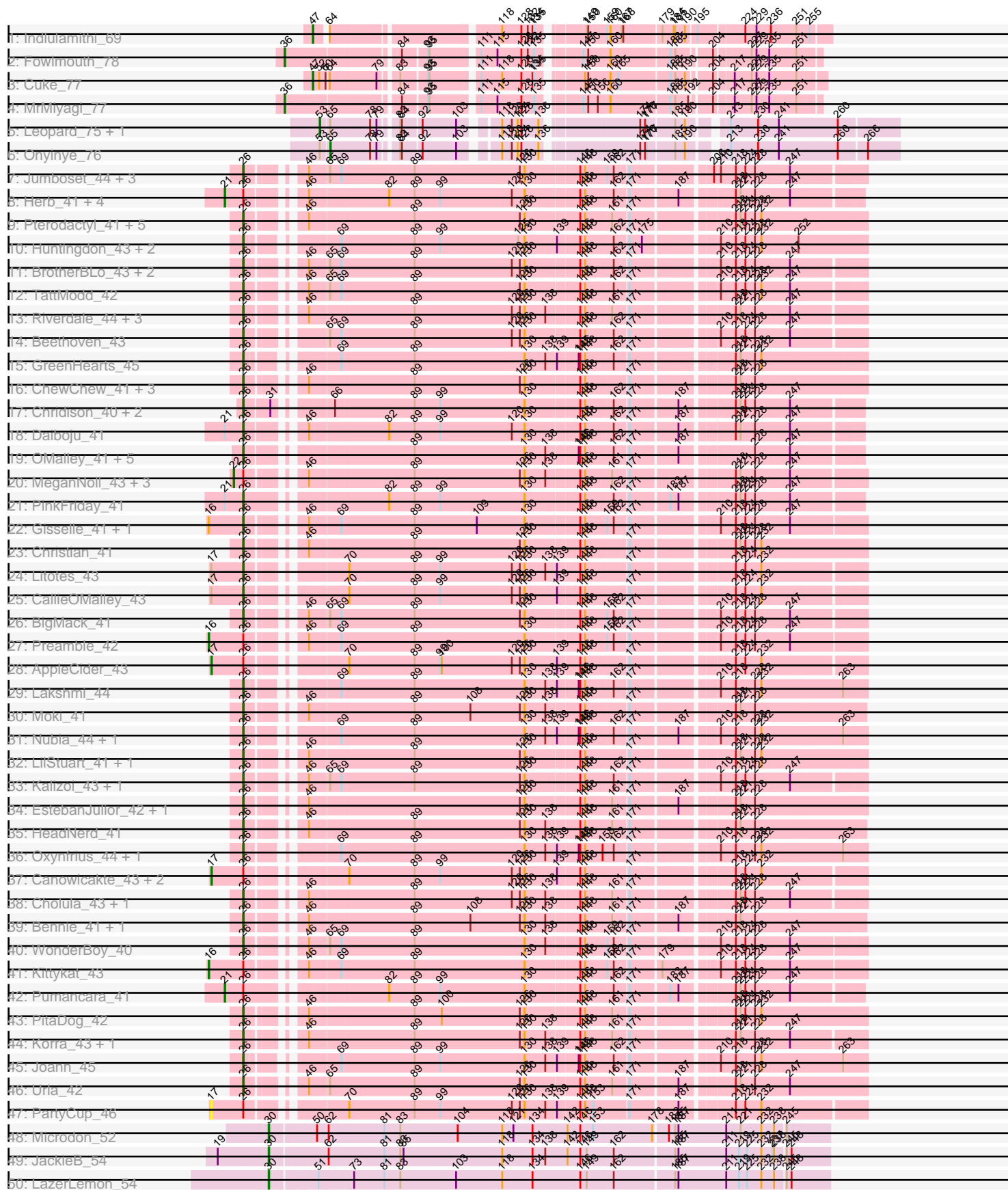
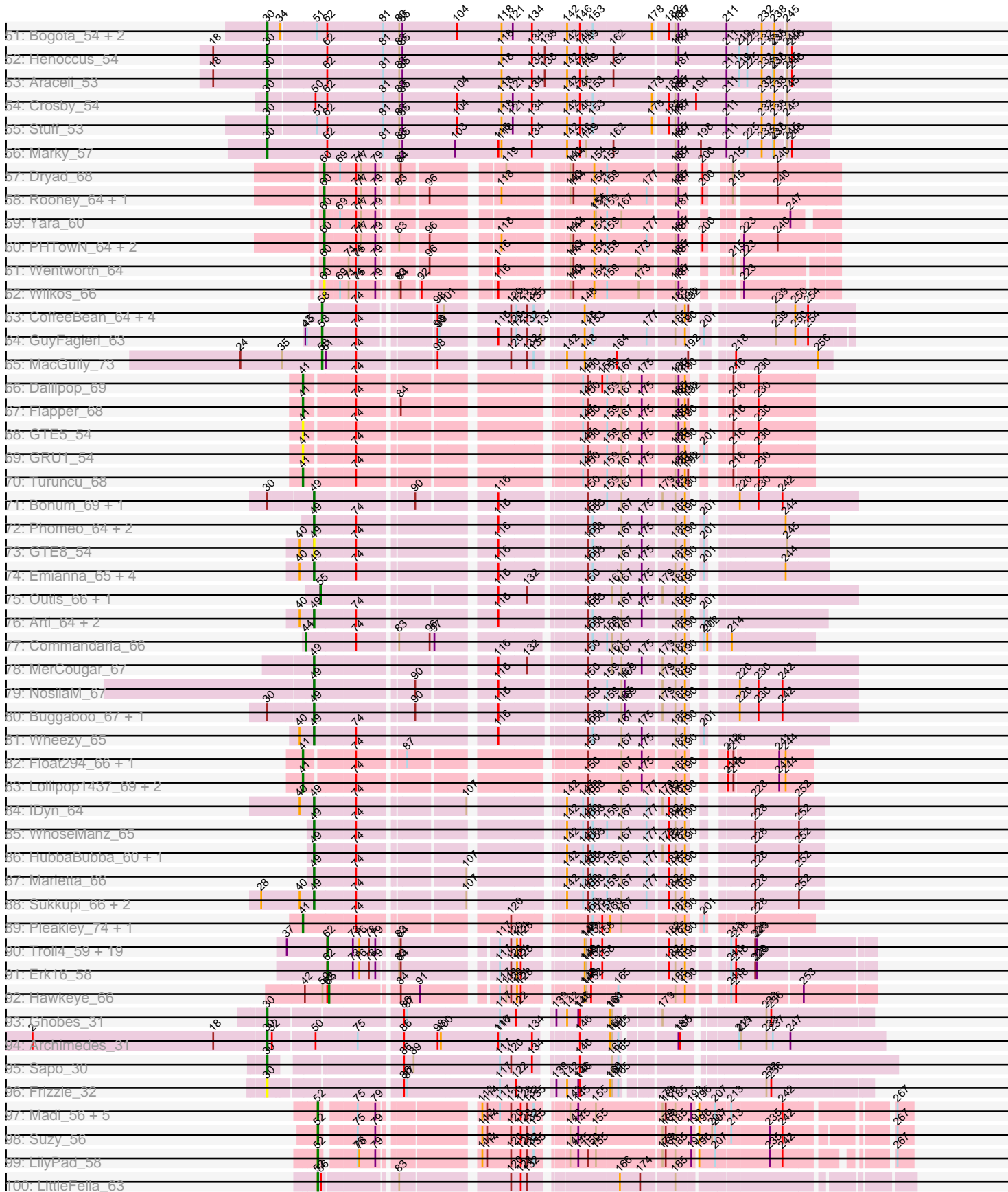


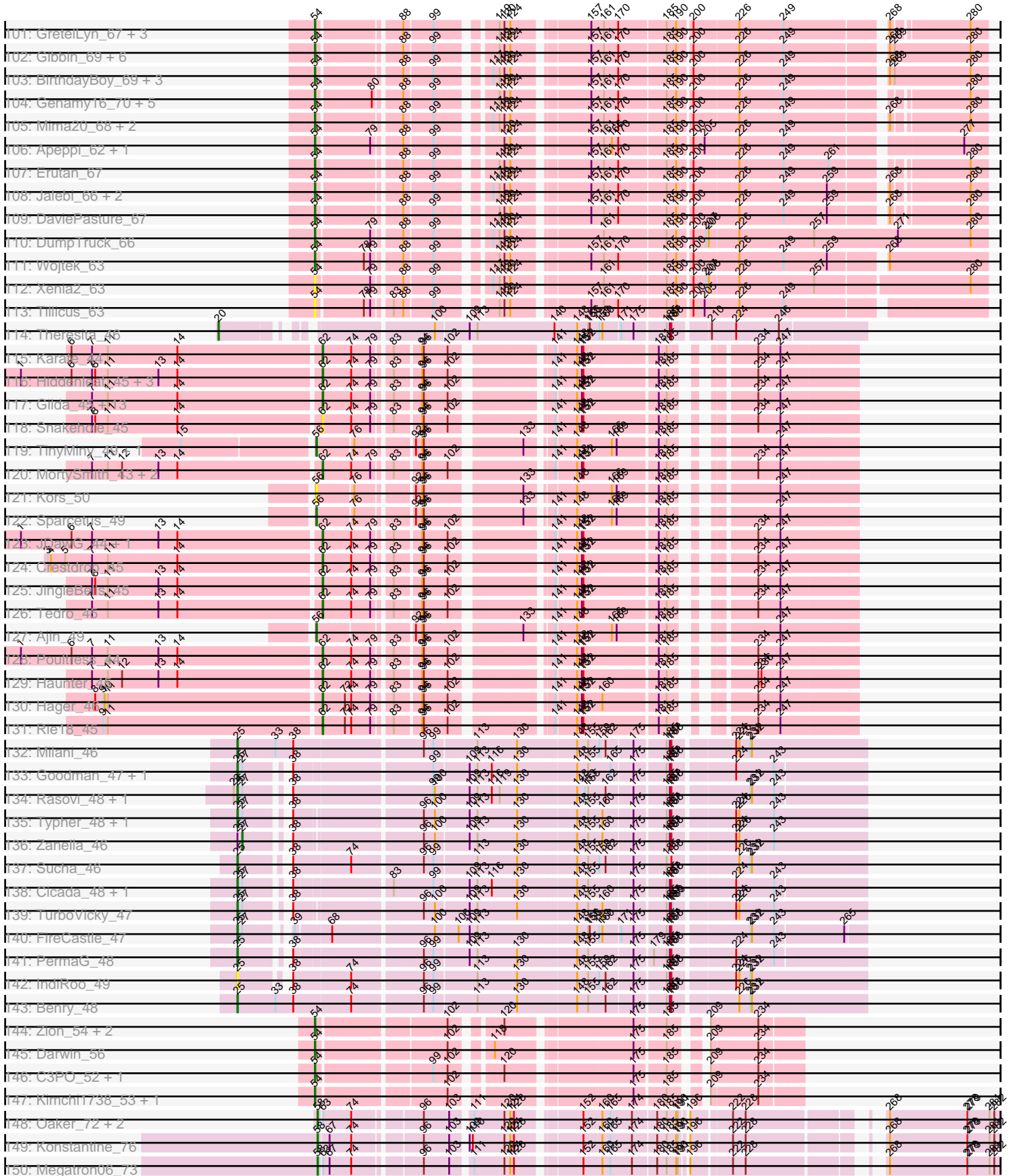
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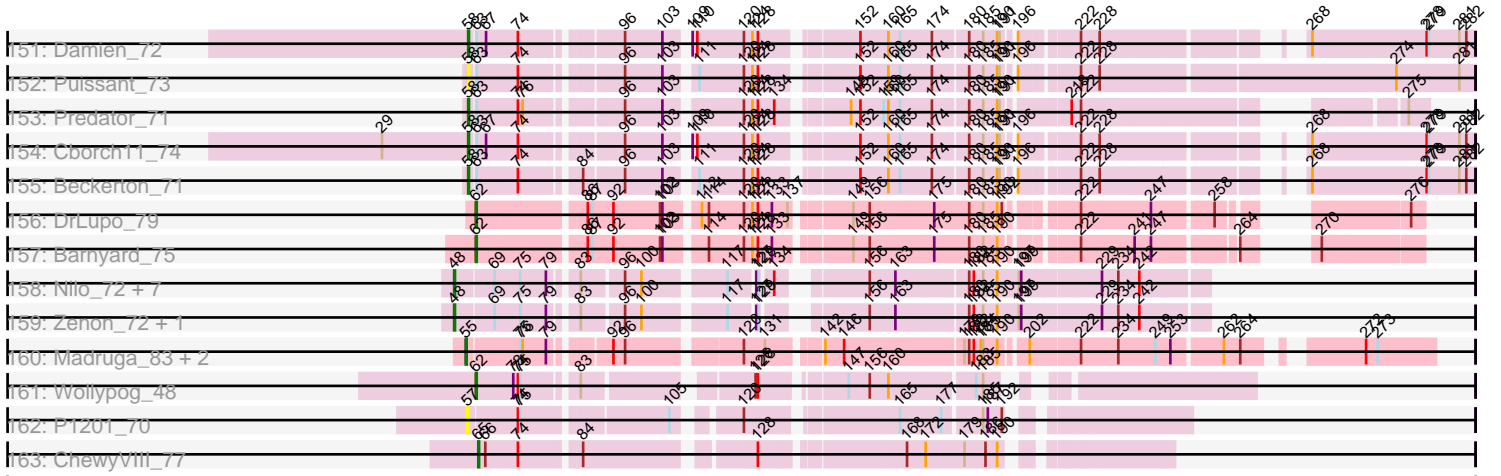
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Pham 196229



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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 196229 Report

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

Pham number 196229 has 320 members, 21 are drafts.

Phages represented in each track:

- Track 1 : Indlulamithi_69
- Track 2 : Fowlmouth_78
- Track 3 : Cuke_77
- Track 4 : MrMiyagi_77
- Track 5 : Leopard_75, Aikoy_76
- Track 6 : Onyinye_76
- Track 7 : Jumboset_44, MrGloopy_44, Glenn_44, Savage2526_44
- Track 8 : Herb_41, KingBob_41, Maria1952_40, Sergei_41, Temper16_41
- Track 9 : Pterodactyl_41, OurGirlNessie_40, Lennox_41, DrRobert_40, Lucy_41, Makoto_41
- Track 10 : Huntingdon_43, Misaeng_43, RcigaStruga_43
- Track 11 : BrotherBLo_43, Rozby_43, Fluke_44
- Track 12 : TattModd_42
- Track 13 : Riverdale_44, Immaculata_43, Carpal_43, Vallejo_44
- Track 14 : Beethoven_43
- Track 15 : GreenHearts_45
- Track 16 : ChewChew_41, Nancia_41, Bodacious_41, CristinaYang_41
- Track 17 : Chridison_40, Vulture_41, HunterDalle_41
- Track 18 : Daiboju_41
- Track 19 : OMalley_41, Aledel_41, AustinPowers_41, Eunoia_41, Supakev_41, Riovina_41
- Track 20 : MeganNoll_43, Zorro_44, Dino_44, RAP15_44
- Track 21 : PinkFriday_41
- Track 22 : Gisselle_41, DreamTeam_41
- Track 23 : Christian_41
- Track 24 : Litotes_43
- Track 25 : CallieOMalley_43
- Track 26 : BigMack_41
- Track 27 : Preamble_42
- Track 28 : AppleCider_43
- Track 29 : Lakshmi_44
- Track 30 : Moki_41
- Track 31 : Nubia_44, Albanese_44
- Track 32 : LilStuart_41, Lasagna_40
- Track 33 : Kalizoi_43, Scuttle_43
- Track 34 : EstebanJulior_42, MamaPearl_42
- Track 35 : HeadNerd_41

- Track 36 : Oxynfrius_44, Greenhouse_45
- Track 37 : Canowicakte_43, Suppi_43, Wayne_43
- Track 38 : Cholula_43, Potatoes_43
- Track 39 : Bennie_41, Huckleberry_41
- Track 40 : WonderBoy_40
- Track 41 : Kittykat_43
- Track 42 : Pumancara_41
- Track 43 : PitaDog_42
- Track 44 : Korra_43, Wawa_43
- Track 45 : Joann_45
- Track 46 : Urla_42
- Track 47 : PartyCup_46
- Track 48 : Microdon_52
- Track 49 : JackieB_54
- Track 50 : LazerLemon_54
- Track 51 : Bogota_54, Intolerant_51, UNTPL_55
- Track 52 : Henoccus_54
- Track 53 : Araceli_53
- Track 54 : Crosby_54
- Track 55 : Stuff_53
- Track 56 : Marky_57
- Track 57 : Dryad_68
- Track 58 : Rooney_64, Gibson_64
- Track 59 : Yara_60
- Track 60 : PHTown_64, Lizz_64, ShakeNBake_64
- Track 61 : Wentworth_64
- Track 62 : Wilkos_66
- Track 63 : CoffeeBean_64, Apiary_64, Maselop_64, Braxoaddie_64, Polyuyuki_64
- Track 64 : GuyFagieri_63
- Track 65 : MacGully_73
- Track 66 : Dalilpop_69
- Track 67 : Flapper_68
- Track 68 : GTE5_54
- Track 69 : GRU1_54
- Track 70 : Turuncu_68
- Track 71 : Bonum_69, Kabluna_68
- Track 72 : Phomeo_64, Jifall16_64, KidneyBean_65
- Track 73 : GTE8_54
- Track 74 : Emianna_65, NatB6_65, Kurt_65, NovumRegina_65, GrootJr_67
- Track 75 : Outis_66, StarStruck_66
- Track 76 : Arti_64, Tracker_65, Foxboro_66
- Track 77 : Commandaria_66
- Track 78 : MerCougar_67
- Track 79 : NosilaM_67
- Track 80 : Buggaboo_67, SuperSulley_67
- Track 81 : Wheezy_65
- Track 82 : Float294_66, Skysand_67
- Track 83 : Lollipop1437_69, Ennea_72, Patio_67
- Track 84 : IDyn_64
- Track 85 : WhoseManz_65
- Track 86 : HubbaBubba_60, NadineRae_65
- Track 87 : Marietta_66
- Track 88 : Sukkupi_66, Yndexa_66, BiPauneto_68

- Track 89 : Pleakley_74, Fury_74
- Track 90 : Troll4_59, BigMama_57, Penelope2018_59, Helpful_62, Visconti_60, Adjutor_58, Prager_59, PBI1_56, PLOT_59, Butterscotch_58, Delton_60, Giuseppe_60, WaldoWhy_61, SirHarley_61, KandZ_58, Mopey_60, Thoth_59, Gumball_59, Chill_61, Nova_58
- Track 91 : Erk16_58
- Track 92 : Hawkeye_66
- Track 93 : Ghobes_31
- Track 94 : Archimedes_31
- Track 95 : Sapo_30
- Track 96 : Frizzle_32
- Track 97 : Madi_56, BiteSize_56, Terapin_57, Beyoncage_56, Sienna_56, Djokovic_56
- Track 98 : Suzy_56
- Track 99 : LilyPad_58
- Track 100 : LittleFella_63
- Track 101 : GretelLyn_67, Zany_65, Sadboi_68, Yikes_69
- Track 102 : Gibbin_69, Patos_71, Ranch_67, Lambo_65, ParvusTarda_66, Lila22_68, NorManre_71
- Track 103 : BirthdayBoy_69, GOATification_67, OtterstedtS21_67, Fulcrum_67
- Track 104 : Genamy16_70, Jamemuya19_67, NovaSharks_69, Alyssamiracle_70, Avian_66, Rumi_68
- Track 105 : Mima20_68, DoobyDoo_66, Alephilan_68
- Track 106 : Apeppi_62, LuckyLeo_64
- Track 107 : Erutan_67
- Track 108 : Jalebi_66, MoiGyank_70, Sampudon_67
- Track 109 : DaviePasture_67
- Track 110 : DumpTruck_66
- Track 111 : Wojtek_63
- Track 112 : Xenia2_63
- Track 113 : Tillicus_63
- Track 114 : Theresita_46
- Track 115 : Karate_44
- Track 116 : Hiddenleaf_45, DannyDe_45, Chivey_45, FreddieHg_45
- Track 117 : Gilda_45, Kate_46, AnnaSerena_45, Pharpay_45, NarutoRun_45, Cybele_45, CoolCookie_45, Rachella_45, Krampus_45, Neptune_45, Potty_45, Anakin_45, PhunaPhoke_45, OverHedge_45
- Track 118 : Snakehole_45
- Track 119 : TinyMiny_49, RikSengupta_49
- Track 120 : MortySmith_43, Erudite_44, Dauntless_44
- Track 121 : Kors_50
- Track 122 : Sparcetus_49
- Track 123 : JDawG_44, Aesir_44
- Track 124 : Crestdrop_45
- Track 125 : JingleBells_45
- Track 126 : Tedro_45
- Track 127 : Ajin_49
- Track 128 : Poultruss_44
- Track 129 : Haunter_45
- Track 130 : Hager_46
- Track 131 : Rie18_45
- Track 132 : Milani_46
- Track 133 : Goodman_47, Johann_47

- Track 134 : Rasovi_48, Htur_48
- Track 135 : Typher_48, Jera_47
- Track 136 : Zanella_46
- Track 137 : Sucha_46
- Track 138 : Cicada_48, SBlackberry_46
- Track 139 : TurboVicky_47
- Track 140 : FireCastle_47
- Track 141 : PermaG_48
- Track 142 : IndiRoo_49
- Track 143 : Benry_48
- Track 144 : Zion_54, PotatoChip_54, PeteyPab_53
- Track 145 : Darwin_56
- Track 146 : C3PO_52, Cruella_52
- Track 147 : Kimchi1738_53, Stickynote_54
- Track 148 : Oaker_72, Phreeze_71, Thumb_73
- Track 149 : Konstantine_76
- Track 150 : Megatron06_73
- Track 151 : Damien_72
- Track 152 : Puissant_73
- Track 153 : Predator_71
- Track 154 : Cborch11_74
- Track 155 : Beckerton_71
- Track 156 : DrLupo_79
- Track 157 : Barnyard_75
- Track 158 : Nilo_72, Candle_68, Papyrus_70, Rope_70, Yelo_69, Weiss13_70, MontyDev_72, Riparian_72
- Track 159 : Zenon_72, Send513_70
- Track 160 : Madrugua_83, Patience_85, Labelle_84
- Track 161 : Wollypog_48
- Track 162 : P1201_70
- Track 163 : ChewyVIII_77

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

The start number called the most often in the published annotations is 26, it was called in 67 of the 299 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Albanese_44, Aledel_41, AustinPowers_41, Beethoven_43, Bennie_41, BigMack_41, Bodacious_41, BrotherBLo_43, CallieOMalley_43, Carpal_43, ChewChew_41, Cholula_43, Chridison_40, Christian_41, CristinaYang_41, Daiboju_41, DrRobert_40, DreamTeam_41, EstebanJulior_42, Eunoia_41, Fluke_44, Gisselle_41, Glenn_44, GreenHearts_45, Greenhouse_45, HeadNerd_41, Huckleberry_41, HunterDalle_41, Huntingdon_43, Immaculata_43, Joann_45, Jumboset_44, Kalizoi_43, Korra_43, Lakshmi_44, Lasagna_40, Lennox_41, LilStuart_41, Litotes_43, Lucy_41, Makoto_41, MamaPearl_42, Misaeng_43, Moki_41, MrGloopy_44, Nancia_41, Nubia_44, OMalley_41, OurGirlNessie_40, Oxynfrius_44, PinkFriday_41, PitaDog_42, Potatoes_43, Pterodactyl_41, RcigaStruga_43, Riovina_41, Riverdale_44, Rozby_43, Savage2526_44, Scuttle_43, Supakev_41, TattModd_42, Urla_42, Vallejo_44, Vulture_41, Wawa_43,

WonderBoy_40,

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

- AppleCider_43, Canowicakte_43, Dino_44, Herb_41, KingBob_41, Kittykat_43, Maria1952_40, MeganNoll_43, PartyCup_46, Preamble_42, Pumancara_41, RAP15_44, Sergei_41, Suppi_43, Temper16_41, Wayne_43, Zorro_44,

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

- Adjutor_58, Aesir_44, Aikoy_76, Ajin_49, Alephilan_68, Alyssamiracle_70, Anakin_45, AnnaSerena_45, Apeppi_62, Apiary_64, Araceli_53, Archimedes_31, Arti_64, Avian_66, Barnyard_75, Beckerton_71, Benry_48, Beyoncage_56, BiPauneto_68, BigMama_57, BirthdayBoy_69, BiteSize_56, Bogota_54, Bonum_69, Braxoaddie_64, Buggaboo_67, Butterscotch_58, C3PO_52, Candle_68, Cborch11_74, ChewyVIII_77, Chill_61, Chivey_45, Cicada_48, CoffeeBean_64, Commandaria_66, CoolCookie_45, Crestdrop_45, Crosby_54, Cruella_52, Cuke_77, Cybele_45, Dalilpop_69, Damien_72, DannyDe_45, Darwin_56, Dauntless_44, DaviePasture_67, Delton_60, Djokovic_56, DoobyDoo_66, DrLupo_79, Dryad_68, DumpTruck_66, Emianna_65, Ennea_72, Erk16_58, Erudite_44, Erutan_67, FireCastle_47, Flapper_68, Float294_66, Fowlmouth_78, Foxboro_66, FreddieHg_45, Frizzle_32, Fulcrum_67, Fury_74, GOATification_67, GRU1_54, GTE5_54, GTE8_54, Genamy16_70, Ghobes_31, Gibbin_69, Gibson_64, Gilda_45, Giuseppe_60, Goodman_47, Gretellyn_67, GrootJr_67, Gumball_59, GuyFagieri_63, Hager_46, Haunter_45, Hawkeye_66, Helpful_62, Henoccus_54, Hiddenleaf_45, Htur_48, HubbaBubba_60, IDyn_64, IndiRoo_49, Indlulamithi_69, Intolerant_51, JDawG_44, JackieB_54, Jalebi_66, Jamemuya19_67, Jera_47, Jifall16_64, JingleBells_45, Johann_47, Kabluna_68, KandZ_58, Karate_44, Kate_46, KidneyBean_65, Kimchi1738_53, Konstantine_76, Kors_50, Krampus_45, Kurt_65, Labelle_84, Lambo_65, LazerLemon_54, Leopard_75, Lila22_68, LilyPad_58, LittleFella_63, Lizz_64, Lollipop1437_69, LuckyLeo_64, MacGully_73, Madi_56, Madrugua_83, Marietta_66, Marky_57, Maselop_64, Megatron06_73, MerCougar_67, Microdon_52, Milani_46, Mima20_68, MoiGyank_70, MontyDev_72, Mopey_60, MortySmith_43, MrMiyagi_77, NadineRae_65, NarutoRun_45, NatB6_65, Neptune_45, Nilo_72, NorManre_71, NosilaM_67, NovaSharks_69, Nova_58, NovumRegina_65, Oaker_72, Onyinye_76, OtterstedtS21_67, Otis_66, OverHedge_45, P1201_70, PBI1_56, PHTowN_64, PLOT_59, Papyrus_70, ParvusTarda_66, Patience_85, Patio_67, Patos_71, Penelope2018_59, PermaG_48, PeteyPab_53, Pharpay_45, Phomeo_64, Phreeze_71, PhunaPhoke_45, Pleakley_74, Polyyuki_64, PotatoChip_54, Potty_45, Poultruss_44, Prager_59, Predator_71, Puissant_73, Rachella_45, Ranch_67, Rasovi_48, Rie18_45, RikSengupta_49, Riparian_72, Rooney_64, Rope_70, Rumi_68, SBlackberry_46, Sadboi_68, Sampudon_67, Sapo_30, Send513_70, ShakeNBake_64, Sienna_56, SirHarley_61, Skysand_67, Snakehole_45, Sparcetus_49, StarStruck_66, Stickynote_54, Stuff_53, Sucha_46, Sukkupi_66, SuperSulley_67, Suzy_56, Tedro_45, Terapin_57, Theresita_46, Thoth_59, Thumb_73, Tillicus_63, TinyMiny_49, Tracker_65, Troll4_59, TurboVicky_47, Turuncu_68, Typher_48, UNTPL_55, Visconti_60, WaldoWhy_61, Weiss13_70, Wentworth_64, Wheezy_65, WhoseManz_65, Wilkos_66, Wojtek_63, Wollypog_48, Xenia2_63, Yara_60, Yelo_69, Yikes_69, Yndexa_66, Zanella_46, Zany_65, Zenon_72, Zion_54,

Summary by start number:

Start 16:

- Found in 4 of 320 (1.2%) of genes in pham

- Manual Annotations of this start: 2 of 299
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Kittykat_43 (AK), Preamble_42 (AK),

Start 17:

- Found in 7 of 320 (2.2%) of genes in pham
- Manual Annotations of this start: 4 of 299
- Called 71.4% of time when present
- Phage (with cluster) where this start called: AppleCider_43 (AK), Canowicakte_43 (AK), PartyCup_46 (AK), Suppi_43 (AK), Wayne_43 (AK),

Start 20:

- Found in 1 of 320 (0.3%) of genes in pham
- Manual Annotations of this start: 1 of 299
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Theresita_46 (EA7),

Start 21:

- Found in 8 of 320 (2.5%) of genes in pham
- Manual Annotations of this start: 6 of 299
- Called 75.0% of time when present
- Phage (with cluster) where this start called: Herb_41 (AK), KingBob_41 (AK), Maria1952_40 (AK), Pumancara_41 (AK), Sergei_41 (AK), Temper16_41 (AK),

Start 22:

- Found in 4 of 320 (1.2%) of genes in pham
- Manual Annotations of this start: 4 of 299
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Dino_44 (AK), MeganNoll_43 (AK), RAP15_44 (AK), Zorro_44 (AK),

Start 25:

- Found in 16 of 320 (5.0%) of genes in pham
- Manual Annotations of this start: 14 of 299
- Called 93.8% of time when present
- Phage (with cluster) where this start called: Berry_48 (EJ), Cicada_48 (EJ), FireCastle_47 (EJ), Goodman_47 (EJ), Htur_48 (EJ), IndiRoo_49 (EJ), Jera_47 (EJ), Johann_47 (EJ), Milani_46 (EJ), PermaG_48 (EJ), Rasovi_48 (EJ), SBlackberry_46 (EJ), Sucha_46 (EJ), TurboVicky_47 (EJ), Typher_48 (EJ),

Start 26:

- Found in 84 of 320 (26.2%) of genes in pham
- Manual Annotations of this start: 67 of 299
- Called 79.8% of time when present
- Phage (with cluster) where this start called: Albanese_44 (AK), Aledel_41 (AK), AustinPowers_41 (AK), Beethoven_43 (AK), Bennie_41 (AK), BigMack_41 (AK), Bodacious_41 (AK), BrotherBLo_43 (AK), CallieOMalley_43 (AK), Carpal_43 (AK), ChewChew_41 (AK), Cholula_43 (AK), Chridison_40 (AK), Christian_41 (AK), CristinaYang_41 (AK), Daiboju_41 (AK), DrRobert_40 (AK), DreamTeam_41 (AK), EstebanJulior_42 (AK), Eunoia_41 (AK), Fluke_44 (AK), Gisselle_41 (AK), Glenn_44 (AK), GreenHearts_45 (AK), Greenhouse_45 (AK), HeadNerd_41 (AK), Huckleberry_41 (AK), HunterDalle_41 (AK), Huntingdon_43 (AK), Immaculata_43 (AK), Joann_45 (AK), Jumboset_44 (AK), Kalizoi_43 (AK), Korra_43 (AK),

Lakshmi_44 (AK), Lasagna_40 (AK), Lennox_41 (AK), LilStuart_41 (AK), Litotes_43 (AK), Lucy_41 (AK), Makoto_41 (AK), MamaPearl_42 (AK), Misaeng_43 (AK), Moki_41 (AK), MrGloopy_44 (AK), Nancia_41 (AK), Nubia_44 (AK), OMalley_41 (AK), OurGirlNessie_40 (AK), Oxynfrius_44 (AK), PinkFriday_41 (AK), PitaDog_42 (AK), Potatoes_43 (AK), Pterodactyl_41 (AK), RcigaStruga_43 (AK), Riovina_41 (AK), Riverdale_44 (AK), Rozby_43 (AK), Savage2526_44 (AK), Scuttle_43 (AK), Supakev_41 (AK), TattModd_42 (AK), Urla_42 (AK), Vallejo_44 (AK), Vulture_41 (AK), Wawa_43 (AK), WonderBoy_40 (AK),

Start 27:

- Found in 11 of 320 (3.4%) of genes in pham
- Manual Annotations of this start: 1 of 299
- Called 9.1% of time when present
- Phage (with cluster) where this start called: Zanella_46 (EJ),

Start 30:

- Found in 19 of 320 (5.9%) of genes in pham
- Manual Annotations of this start: 14 of 299
- Called 78.9% of time when present
- Phage (with cluster) where this start called: Araceli_53 (BH), Archimedes_31 (DA), Bogota_54 (BH), Crosby_54 (BH), Frizzle_32 (DA), Ghobes_31 (DA), Henoccus_54 (BH), Intolerant_51 (BH), JackieB_54 (BH), LazerLemon_54 (BH), Marky_57 (BH), Microdon_52 (BH), Sapo_30 (DA), Stuff_53 (BH), UNTPL_55 (BH),

Start 36:

- Found in 2 of 320 (0.6%) of genes in pham
- Manual Annotations of this start: 2 of 299
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Fowlmouth_78 (AC), MrMiyagi_77 (AC),

Start 41:

- Found in 12 of 320 (3.8%) of genes in pham
- Manual Annotations of this start: 10 of 299
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Dalilpop_69 (CR1), Ennea_72 (CR3), Flapper_68 (CR1), Float294_66 (CR3), Fury_74 (CR5), GRU1_54 (CR1), GTE5_54 (CR1), Lollipop1437_69 (CR3), Patio_67 (CR3), Pleakley_74 (CR5), Skysand_67 (CR3), Turuncu_68 (CR1),

Start 44:

- Found in 1 of 320 (0.3%) of genes in pham
- Manual Annotations of this start: 1 of 299
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Commandaria_66 (CR2),

Start 47:

- Found in 2 of 320 (0.6%) of genes in pham
- Manual Annotations of this start: 2 of 299
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Cuke_77 (AC), Indlulamithi_69 (AC),

Start 48:

- Found in 10 of 320 (3.1%) of genes in pham

- Manual Annotations of this start: 9 of 299
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Candle_68 (R), MontyDev_72 (R), Nilo_72 (R), Papyrus_70 (R), Riparian_72 (R), Rope_70 (R), Send513_70 (R), Weiss13_70 (R), Yelo_69 (R), Zenon_72 (R),

Start 49:

- Found in 27 of 320 (8.4%) of genes in pham
- Manual Annotations of this start: 24 of 299
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Arti_64 (CR2), BiPauneto_68 (CR4), Bonum_69 (CR2), Buggaboo_67 (CR2), Emianna_65 (CR2), Foxboro_66 (CR2), GTE8_54 (CR2), GrootJr_67 (CR2), HubbaBubba_60 (CR4), IDyn_64 (CR4), Jifall16_64 (CR2), Kabluna_68 (CR2), KidneyBean_65 (CR2), Kurt_65 (CR2), Marietta_66 (CR4), MerCougar_67 (CR2), NadineRae_65 (CR4), NatB6_65 (CR2), NosilaM_67 (CR2), NovumRegina_65 (CR2), Phomeo_64 (CR2), Sukkupi_66 (CR4), SuperSulley_67 (CR2), Tracker_65 (CR2), Wheezy_65 (CR2), WhoseManz_65 (CR4), Yndexa_66 (CR4),

Start 52:

- Found in 10 of 320 (3.1%) of genes in pham
- Manual Annotations of this start: 9 of 299
- Called 90.0% of time when present
- Phage (with cluster) where this start called: Beyoncage_56 (DG1), BiteSize_56 (DG1), Djokovic_56 (DG1), LilyPad_58 (DG1), LittleFella_63 (DG2), Madi_56 (DG1), Sienna_56 (DG1), Suzy_56 (DG1), Terapin_57 (DG1),

Start 53:

- Found in 3 of 320 (0.9%) of genes in pham
- Manual Annotations of this start: 2 of 299
- Called 66.7% of time when present
- Phage (with cluster) where this start called: Aikoy_76 (AE), Leopard_75 (AE),

Start 54:

- Found in 43 of 320 (13.4%) of genes in pham
- Manual Annotations of this start: 37 of 299
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Alephilan_68 (DV), Alyssamiracle_70 (DV), Apeppi_62 (DV), Avian_66 (DV), BirthdayBoy_69 (DV), C3PO_52 (EN), Cruella_52 (EN), Darwin_56 (EN), DaviePasture_67 (DV), DoobyDoo_66 (DV), DumpTruck_66 (DV), Erutan_67 (DV), Fulcrum_67 (DV), GOATification_67 (DV), Genamy16_70 (DV), Gibbin_69 (DV), GretelLyn_67 (DV), Jalebi_66 (DV), Jamemuya19_67 (DV), Kimchi1738_53 (EN), Lambo_65 (DV), Lila22_68 (DV), LuckyLeo_64 (DV), Mima20_68 (DV), MoiGyank_70 (DV), NorManre_71 (DV), NovaSharks_69 (DV), OtterstedtS21_67 (DV), ParvusTarda_66 (DV), Patos_71 (DV), PeteyPab_53 (EN), PotatoChip_54 (EN), Ranch_67 (DV), Rumi_68 (DV), Sadboi_68 (DV), Sampudon_67 (DV), Stickynote_54 (EN), Tillicus_63 (DV), Wojtek_63 (DV), Xenia2_63 (DV), Yikes_69 (DV), Zany_65 (DV), Zion_54 (EN),

Start 55:

- Found in 5 of 320 (1.6%) of genes in pham
- Manual Annotations of this start: 5 of 299
- Called 100.0% of time when present

- Phage (with cluster) where this start called: Labelle_84 (U), Madruga_83 (U), Outis_66 (CR2), Patience_85 (U), StarStruck_66 (CR2),

Start 56:

- Found in 6 of 320 (1.9%) of genes in pham
- Manual Annotations of this start: 4 of 299
- Called 83.3% of time when present
- Phage (with cluster) where this start called: Ajin_49 (EF), Kors_50 (EF), RikSengupta_49 (EF), Sparcetus_49 (EF), TinyMiny_49 (EF),

Start 57:

- Found in 1 of 320 (0.3%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: P1201_70 (singleton),

Start 58:

- Found in 17 of 320 (5.3%) of genes in pham
- Manual Annotations of this start: 16 of 299
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Apiary_64 (CR), Beckerton_71 (H1), Braxoaddie_64 (CR), Cborch11_74 (H1), CoffeeBean_64 (CR), Damien_72 (H1), GuyFagieri_63 (CR), Konstantine_76 (H1), MacGully_73 (CR), Maselop_64 (CR), Megatron06_73 (H1), Oaker_72 (H1), Phreeze_71 (H1), Polyuyuki_64 (CR), Predator_71 (H1), Puissant_73 (H1), Thumb_73 (H1),

Start 60:

- Found in 10 of 320 (3.1%) of genes in pham
- Manual Annotations of this start: 8 of 299
- Called 90.0% of time when present
- Phage (with cluster) where this start called: Dryad_68 (BN), Gibson_64 (BN), Lizz_64 (BN), PHTown_64 (BN), Rooney_64 (BN), ShakeNBake_64 (BN), Wentworth_64 (BN), Wilkos_66 (BN), Yara_60 (BN),

Start 62:

- Found in 67 of 320 (20.9%) of genes in pham
- Manual Annotations of this start: 54 of 299
- Called 83.6% of time when present
- Phage (with cluster) where this start called: Adjutor_58 (D1), Aesir_44 (EF), Anakin_45 (EF), AnnaSerena_45 (EF), Barnyard_75 (H2), BigMama_57 (D1), Butterscotch_58 (D1), Chill_61 (D1), Chivey_45 (EF), CoolCookie_45 (EF), Crestdrop_45 (EF), Cybele_45 (EF), DannyDe_45 (EF), Dauntless_44 (EF), Delton_60 (D1), DrLupo_79 (H2), Erk16_58 (D1), Erudite_44 (EF), FreddieHg_45 (EF), Gilda_45 (EF), Giuseppe_60 (D1), Gumball_59 (D1), Hager_46 (EF), Haunter_45 (EF), Helpful_62 (D1), Hiddenleaf_45 (EF), JDawG_44 (EF), JingleBells_45 (EF), KandZ_58 (D1), Karate_44 (EF), Kate_46 (EF), Krampus_45 (EF), Mopey_60 (D1), MortySmith_43 (EF), NarutoRun_45 (EF), Neptune_45 (EF), Nova_58 (D1), OverHedge_45 (EF), PBI1_56 (D1), PLOT_59 (D1), Penelope2018_59 (D1), Pharpay_45 (EF), PhunaPhoke_45 (EF), Potty_45 (EF), Poultriss_44 (EF), Prager_59 (D1), Rachella_45 (EF), Rie18_45 (EF), SirHarley_61 (D1), Snakehole_45 (EF), Tedro_45 (EF), Thoth_59 (D1), Troll4_59 (D1), Visconti_60 (D1), WaldoWhy_61 (D1), Wollypog_48 (singleton),

Start 65:

- Found in 19 of 320 (5.9%) of genes in pham
- Manual Annotations of this start: 3 of 299
- Called 15.8% of time when present
- Phage (with cluster) where this start called: ChewyVIII_77 (singleton), Hawkeye_66 (D2), Onyinye_76 (AE),

Summary by clusters:

There are 26 clusters represented in this pham: singleton, BN, BH, DA, DV, AC, EN, AE, EJ, AK, EF, DG2, R, U, CR, EA7, CR2, CR3, CR1, CR4, CR5, H2, H1, DG1, D2, D1,

Info for manual annotations of cluster AC:

- Start number 36 was manually annotated 2 times for cluster AC.
- Start number 47 was manually annotated 2 times for cluster AC.

Info for manual annotations of cluster AE:

- Start number 53 was manually annotated 2 times for cluster AE.
- Start number 65 was manually annotated 1 time for cluster AE.

Info for manual annotations of cluster AK:

- Start number 16 was manually annotated 2 times for cluster AK.
- Start number 17 was manually annotated 4 times for cluster AK.
- Start number 21 was manually annotated 6 times for cluster AK.
- Start number 22 was manually annotated 4 times for cluster AK.
- Start number 26 was manually annotated 67 times for cluster AK.

Info for manual annotations of cluster BH:

- Start number 30 was manually annotated 11 times for cluster BH.

Info for manual annotations of cluster BN:

- Start number 60 was manually annotated 8 times for cluster BN.

Info for manual annotations of cluster CR:

- Start number 58 was manually annotated 7 times for cluster CR.

Info for manual annotations of cluster CR1:

- Start number 41 was manually annotated 3 times for cluster CR1.

Info for manual annotations of cluster CR2:

- Start number 44 was manually annotated 1 time for cluster CR2.
- Start number 49 was manually annotated 17 times for cluster CR2.
- Start number 55 was manually annotated 2 times for cluster CR2.

Info for manual annotations of cluster CR3:

- Start number 41 was manually annotated 5 times for cluster CR3.

Info for manual annotations of cluster CR4:

- Start number 49 was manually annotated 7 times for cluster CR4.

Info for manual annotations of cluster CR5:

- Start number 41 was manually annotated 2 times for cluster CR5.

Info for manual annotations of cluster D1:

- Start number 62 was manually annotated 20 times for cluster D1.

Info for manual annotations of cluster D2:

- Start number 65 was manually annotated 1 time for cluster D2.

Info for manual annotations of cluster DA:

- Start number 30 was manually annotated 3 times for cluster DA.

Info for manual annotations of cluster DG1:

- Start number 52 was manually annotated 8 times for cluster DG1.

Info for manual annotations of cluster DG2:

- Start number 52 was manually annotated 1 time for cluster DG2.

Info for manual annotations of cluster DV:

- Start number 54 was manually annotated 29 times for cluster DV.

Info for manual annotations of cluster EA7:

- Start number 20 was manually annotated 1 time for cluster EA7.

Info for manual annotations of cluster EF:

- Start number 56 was manually annotated 4 times for cluster EF.
- Start number 62 was manually annotated 31 times for cluster EF.

Info for manual annotations of cluster EJ:

- Start number 25 was manually annotated 14 times for cluster EJ.
- Start number 27 was manually annotated 1 time for cluster EJ.

Info for manual annotations of cluster EN:

- Start number 54 was manually annotated 8 times for cluster EN.

Info for manual annotations of cluster H1:

- Start number 58 was manually annotated 9 times for cluster H1.

Info for manual annotations of cluster H2:

- Start number 62 was manually annotated 2 times for cluster H2.

Info for manual annotations of cluster R:

- Start number 48 was manually annotated 9 times for cluster R.

Info for manual annotations of cluster U:

- Start number 55 was manually annotated 3 times for cluster U.

Gene Information:

Gene: Adjutor_58 Start: 44429, Stop: 45289, Start Num: 62

Candidate Starts for Adjutor_58:

(37, 44357), (Start: 62 @44429 has 54 MA's), (73, 44474), (76, 44486), (78, 44504), (79, 44516), (83, 44540), (84, 44543), (117, 44696), (120, 44717), (124, 44726), (128, 44732), (148, 44822), (149,

44825), (152, 44834), (158, 44855), (182, 44966), (185, 44978), (190, 44996), (213, 45047), (218, 45056), (228, 45086), (229, 45089),

Gene: Aesir_44 Start: 29791, Stop: 30636, Start Num: 62

Candidate Starts for Aesir_44:

(1, 29230), (6, 29326), (7, 29365), (13, 29491), (14, 29527), (Start: 62 @29791 has 54 MA's), (74, 29845), (79, 29881), (83, 29908), (94, 29953), (96, 29956), (102, 30001), (141, 30157), (148, 30193), (151, 30202), (152, 30205), (181, 30334), (185, 30349), (234, 30454), (247, 30496),

Gene: Aikoy_76 Start: 51990, Stop: 52910, Start Num: 53

Candidate Starts for Aikoy_76:

(Start: 53 @51990 has 2 MA's), (Start: 65 @52005 has 3 MA's), (78, 52077), (79, 52089), (83, 52113), (84, 52116), (92, 52146), (103, 52209), (118, 52266), (120, 52284), (124, 52293), (128, 52299), (136, 52329), (174, 52488), (176, 52497), (177, 52500), (185, 52545), (190, 52563), (213, 52611), (230, 52659), (241, 52698), (260, 52803),

Gene: Ajin_49 Start: 31113, Stop: 31955, Start Num: 56

Candidate Starts for Ajin_49:

(Start: 56 @31113 has 4 MA's), (92, 31260), (94, 31272), (96, 31275), (133, 31437), (141, 31473), (148, 31509), (166, 31572), (169, 31581), (181, 31650), (185, 31665), (247, 31812),

Gene: Albanese_44 Start: 29446, Stop: 30498, Start Num: 26

Candidate Starts for Albanese_44:

(Start: 26 @29446 has 67 MA's), (69, 29572), (89, 29707), (130, 29914), (138, 29953), (139, 29968), (145, 30004), (146, 30007), (148, 30016), (162, 30067), (171, 30091), (187, 30172), (210, 30232), (218, 30259), (228, 30295), (232, 30307), (263, 30457),

Gene: Aledel_41 Start: 28837, Stop: 29880, Start Num: 26

Candidate Starts for Aledel_41:

(Start: 26 @28837 has 67 MA's), (89, 29104), (130, 29311), (138, 29350), (145, 29401), (146, 29404), (148, 29413), (162, 29464), (171, 29488), (187, 29569), (228, 29692), (247, 29758),

Gene: Alephilan_68 Start: 45485, Stop: 46561, Start Num: 54

Candidate Starts for Alephilan_68:

(Start: 54 @45485 has 37 MA's), (88, 45617), (99, 45665), (117, 45746), (119, 45758), (120, 45767), (124, 45776), (157, 45899), (161, 45920), (170, 45947), (185, 46028), (190, 46046), (200, 46067), (226, 46145), (249, 46229), (268, 46394), (280, 46532),

Gene: Alyssamiracle_70 Start: 44487, Stop: 45557, Start Num: 54

Candidate Starts for Alyssamiracle_70:

(Start: 54 @44487 has 37 MA's), (80, 44583), (88, 44619), (99, 44667), (119, 44760), (120, 44769), (124, 44778), (157, 44901), (161, 44922), (170, 44949), (185, 45030), (190, 45048), (200, 45069), (226, 45147), (249, 45231), (280, 45528),

Gene: Anakin_45 Start: 30144, Stop: 30992, Start Num: 62

Candidate Starts for Anakin_45:

(7, 29718), (11, 29748), (14, 29880), (Start: 62 @30144 has 54 MA's), (74, 30198), (79, 30234), (83, 30261), (94, 30306), (96, 30309), (102, 30354), (141, 30510), (148, 30546), (151, 30555), (152, 30558), (181, 30687), (185, 30702), (234, 30807), (247, 30849),

Gene: AnnaSerena_45 Start: 30179, Stop: 31027, Start Num: 62

Candidate Starts for AnnaSerena_45:

(7, 29753), (11, 29783), (14, 29915), (Start: 62 @30179 has 54 MA's), (74, 30233), (79, 30269), (83, 30296), (94, 30341), (96, 30344), (102, 30389), (141, 30545), (148, 30581), (151, 30590), (152, 30593), (181, 30722), (185, 30737), (234, 30842), (247, 30884),

Gene: Apeppi_62 Start: 44646, Stop: 45731, Start Num: 54

Candidate Starts for Apeppi_62:

(Start: 54 @44646 has 37 MA's), (79, 44739), (88, 44778), (99, 44826), (120, 44928), (124, 44937), (157, 45060), (161, 45081), (166, 45096), (170, 45108), (185, 45189), (190, 45207), (200, 45228), (205, 45249), (226, 45306), (249, 45390), (277, 45690),

Gene: Apiary_64 Start: 48400, Stop: 47549, Start Num: 58

Candidate Starts for Apiary_64:

(Start: 58 @48400 has 16 MA's), (74, 48340), (98, 48220), (101, 48208), (120, 48106), (123, 48097), (132, 48079), (135, 48067), (148, 47995), (185, 47839), (190, 47821), (192, 47815), (239, 47692), (250, 47656), (254, 47635),

Gene: AppleCider_43 Start: 28800, Stop: 29906, Start Num: 17

Candidate Starts for AppleCider_43:

(Start: 17 @28800 has 4 MA's), (Start: 26 @28857 has 67 MA's), (70, 28998), (89, 29121), (99, 29169), (100, 29172), (120, 29304), (126, 29319), (130, 29328), (139, 29382), (146, 29421), (148, 29430), (171, 29505), (218, 29673), (224, 29691), (232, 29721),

Gene: Araceli_53 Start: 37442, Stop: 38452, Start Num: 30

Candidate Starts for Araceli_53:

(18, 37346), (Start: 30 @37442 has 14 MA's), (Start: 62 @37538 has 54 MA's), (81, 37640), (83, 37667), (85, 37673), (118, 37856), (134, 37910), (138, 37934), (142, 37976), (146, 38000), (149, 38012), (162, 38060), (187, 38174), (211, 38264), (219, 38288), (225, 38303), (232, 38330), (237, 38351), (238, 38354), (245, 38372), (248, 38381),

Gene: Archimedes_31 Start: 29275, Stop: 28235, Start Num: 30

Candidate Starts for Archimedes_31:

(2, 29710), (18, 29371), (Start: 30 @29275 has 14 MA's), (32, 29266), (50, 29191), (75, 29116), (86, 29041), (98, 28978), (100, 28972), (116, 28864), (117, 28861), (134, 28801), (146, 28741), (160, 28687), (161, 28684), (165, 28672), (187, 28588), (188, 28585), (219, 28501), (221, 28498), (233, 28450), (237, 28438), (247, 28405),

Gene: Arti_64 Start: 50810, Stop: 49992, Start Num: 49

Candidate Starts for Arti_64:

(40, 50837), (Start: 49 @50810 has 24 MA's), (74, 50738), (116, 50516), (150, 50375), (153, 50366), (167, 50315), (175, 50279), (185, 50225), (190, 50207), (201, 50192),

Gene: AustinPowers_41 Start: 28835, Stop: 29878, Start Num: 26

Candidate Starts for AustinPowers_41:

(Start: 26 @28835 has 67 MA's), (89, 29102), (130, 29309), (138, 29348), (145, 29399), (146, 29402), (148, 29411), (162, 29462), (171, 29486), (187, 29567), (228, 29690), (247, 29756),

Gene: Avian_66 Start: 44215, Stop: 45285, Start Num: 54

Candidate Starts for Avian_66:

(Start: 54 @44215 has 37 MA's), (80, 44311), (88, 44347), (99, 44395), (119, 44488), (120, 44497), (124, 44506), (157, 44629), (161, 44650), (170, 44677), (185, 44758), (190, 44776), (200, 44797), (226, 44875), (249, 44959), (280, 45256),

Gene: Barnyard_75 Start: 51526, Stop: 52548, Start Num: 62

Candidate Starts for Barnyard_75:

(Start: 62 @51526 has 54 MA's), (86, 51652), (87, 51658), (92, 51682), (102, 51742), (103, 51745), (114, 51790), (120, 51835), (124, 51844), (128, 51850), (133, 51868), (149, 51949), (156, 51970), (175, 52048), (180, 52093), (185, 52111), (190, 52129), (222, 52204), (241, 52273), (247, 52294), (264, 52387), (270, 52423),

Gene: Beckerton_71 Start: 53060, Stop: 54136, Start Num: 58

Candidate Starts for Beckerton_71:

(Start: 58 @53060 has 16 MA's), (63, 53066), (74, 53114), (84, 53177), (96, 53222), (103, 53270), (111, 53300), (120, 53357), (124, 53366), (128, 53372), (152, 53474), (160, 53507), (165, 53522), (174, 53561), (180, 53600), (185, 53618), (190, 53636), (191, 53639), (196, 53648), (222, 53714), (228, 53738), (268, 53927), (278, 54074), (279, 54077), (281, 54116), (282, 54125),

Gene: Beethoven_43 Start: 28809, Stop: 29852, Start Num: 26

Candidate Starts for Beethoven_43:

(Start: 26 @28809 has 67 MA's), (Start: 65 @28914 has 3 MA's), (69, 28935), (89, 29070), (120, 29253), (126, 29268), (130, 29277), (146, 29370), (148, 29379), (162, 29430), (171, 29454), (210, 29595), (218, 29622), (224, 29640), (228, 29658), (247, 29724),

Gene: Bennie_41 Start: 27620, Stop: 28669, Start Num: 26

Candidate Starts for Bennie_41:

(Start: 26 @27620 has 67 MA's), (46, 27692), (89, 27881), (108, 27986), (126, 28079), (130, 28088), (138, 28127), (146, 28181), (148, 28190), (161, 28238), (171, 28265), (187, 28346), (218, 28433), (221, 28442), (228, 28469),

Gene: Benry_48 Start: 28836, Stop: 29945, Start Num: 25

Candidate Starts for Benry_48:

(Start: 25 @28836 has 14 MA's), (33, 28905), (38, 28938), (74, 29037), (96, 29163), (99, 29181), (113, 29259), (130, 29334), (148, 29442), (155, 29463), (162, 29493), (175, 29538), (185, 29592), (187, 29598), (188, 29601), (226, 29712), (231, 29733), (232, 29736),

Gene: Beyoncage_56 Start: 41805, Stop: 42734, Start Num: 52

Candidate Starts for Beyoncage_56:

(Start: 52 @41805 has 9 MA's), (75, 41862), (79, 41895), (112, 42045), (114, 42054), (117, 42078), (120, 42099), (128, 42114), (132, 42126), (135, 42138), (143, 42177), (145, 42192), (155, 42225), (179, 42336), (180, 42342), (185, 42360), (193, 42384), (196, 42390), (207, 42420), (213, 42444), (242, 42537), (267, 42705),

Gene: BiPauneto_68 Start: 50402, Stop: 49605, Start Num: 49

Candidate Starts for BiPauneto_68:

(28, 50501), (40, 50429), (Start: 49 @50402 has 24 MA's), (74, 50327), (107, 50153), (142, 50021), (147, 49991), (150, 49982), (153, 49973), (159, 49946), (167, 49919), (177, 49874), (182, 49841), (185, 49829), (190, 49811), (228, 49730), (252, 49652),

Gene: BigMack_41 Start: 27720, Stop: 28763, Start Num: 26

Candidate Starts for BigMack_41:

(Start: 26 @27720 has 67 MA's), (46, 27792), (Start: 65 @27825 has 3 MA's), (69, 27846), (89, 27981), (126, 28179), (130, 28188), (146, 28281), (148, 28290), (159, 28329), (162, 28341), (171, 28365), (210, 28506), (218, 28533), (224, 28551), (228, 28569), (247, 28635),

Gene: BigMama_57 Start: 44505, Stop: 45365, Start Num: 62

Candidate Starts for BigMama_57:

(37, 44433), (Start: 62 @44505 has 54 MA's), (73, 44550), (76, 44562), (78, 44580), (79, 44592), (83, 44616), (84, 44619), (117, 44772), (120, 44793), (124, 44802), (128, 44808), (148, 44898), (149, 44901), (152, 44910), (158, 44931), (182, 45042), (185, 45054), (190, 45072), (213, 45123), (218, 45132), (228, 45162), (229, 45165),

Gene: BirthdayBoy_69 Start: 45791, Stop: 46882, Start Num: 54

Candidate Starts for BirthdayBoy_69:

(Start: 54 @45791 has 37 MA's), (88, 45923), (99, 45971), (117, 46052), (119, 46064), (120, 46073), (124, 46082), (157, 46205), (161, 46226), (170, 46253), (185, 46334), (190, 46352), (200, 46373), (226, 46451), (249, 46535), (268, 46700), (269, 46709), (280, 46853),

Gene: BiteSize_56 Start: 41891, Stop: 42820, Start Num: 52

Candidate Starts for BiteSize_56:

(Start: 52 @41891 has 9 MA's), (75, 41948), (79, 41981), (112, 42131), (114, 42140), (117, 42164), (120, 42185), (128, 42200), (132, 42212), (135, 42224), (143, 42263), (145, 42278), (155, 42311), (179, 42422), (180, 42428), (185, 42446), (193, 42470), (196, 42476), (207, 42506), (213, 42530), (242, 42623), (267, 42791),

Gene: Bodacious_41 Start: 27678, Stop: 28730, Start Num: 26

Candidate Starts for Bodacious_41:

(Start: 26 @27678 has 67 MA's), (46, 27750), (89, 27939), (126, 28137), (130, 28146), (146, 28239), (148, 28248), (171, 28323), (218, 28491), (221, 28500), (228, 28527),

Gene: Bogota_54 Start: 37764, Stop: 38777, Start Num: 30

Candidate Starts for Bogota_54:

(Start: 30 @37764 has 14 MA's), (34, 37788), (51, 37848), (Start: 62 @37863 has 54 MA's), (81, 37965), (83, 37992), (85, 37998), (104, 38097), (118, 38181), (121, 38202), (134, 38235), (142, 38301), (146, 38325), (153, 38349), (178, 38457), (182, 38481), (185, 38493), (187, 38499), (211, 38589), (232, 38655), (238, 38679), (245, 38697),

Gene: Bonum_69 Start: 51702, Stop: 50839, Start Num: 49

Candidate Starts for Bonum_69:

(Start: 30 @51780 has 14 MA's), (Start: 49 @51702 has 24 MA's), (90, 51540), (116, 51414), (150, 51273), (159, 51240), (167, 51213), (179, 51147), (185, 51123), (190, 51105), (220, 51051), (230, 51021), (242, 50976),

Gene: Braxoaddie_64 Start: 48389, Stop: 47538, Start Num: 58

Candidate Starts for Braxoaddie_64:

(Start: 58 @48389 has 16 MA's), (74, 48329), (98, 48209), (101, 48197), (120, 48095), (123, 48086), (132, 48068), (135, 48056), (148, 47984), (185, 47828), (190, 47810), (192, 47804), (239, 47681), (250, 47645), (254, 47624),

Gene: BrotherBLo_43 Start: 28841, Stop: 29884, Start Num: 26

Candidate Starts for BrotherBLo_43:

(Start: 26 @28841 has 67 MA's), (46, 28913), (Start: 65 @28946 has 3 MA's), (69, 28967), (89, 29102), (120, 29285), (126, 29300), (130, 29309), (146, 29402), (148, 29411), (162, 29462), (171, 29486), (210, 29627), (218, 29654), (224, 29672), (228, 29690), (247, 29756),

Gene: Buggaboo_67 Start: 52253, Stop: 51390, Start Num: 49

Candidate Starts for Buggaboo_67:

(Start: 30 @52331 has 14 MA's), (Start: 49 @52253 has 24 MA's), (90, 52091), (116, 51965), (150, 51824), (159, 51791), (167, 51764), (169, 51758), (179, 51698), (185, 51674), (190, 51656), (220, 51602), (230, 51572), (242, 51527),

Gene: Butterscotch_58 Start: 44489, Stop: 45349, Start Num: 62

Candidate Starts for Butterscotch_58:

(37, 44417), (Start: 62 @44489 has 54 MA's), (73, 44534), (76, 44546), (78, 44564), (79, 44576), (83, 44600), (84, 44603), (117, 44756), (120, 44777), (124, 44786), (128, 44792), (148, 44882), (149, 44885), (152, 44894), (158, 44915), (182, 45026), (185, 45038), (190, 45056), (213, 45107), (218, 45116), (228, 45146), (229, 45149),

Gene: C3PO_52 Start: 45078, Stop: 44314, Start Num: 54

Candidate Starts for C3PO_52:

(Start: 54 @45078 has 37 MA's), (99, 44886), (102, 44859), (120, 44784), (175, 44577), (185, 44523), (209, 44478), (234, 44394),

Gene: CallieOMalley_43 Start: 28857, Stop: 29906, Start Num: 26

Candidate Starts for CallieOMalley_43:

(Start: 17 @28800 has 4 MA's), (Start: 26 @28857 has 67 MA's), (70, 28998), (89, 29121), (99, 29169), (120, 29304), (126, 29319), (130, 29328), (139, 29382), (146, 29421), (148, 29430), (171, 29505), (218, 29673), (224, 29691), (232, 29721),

Gene: Candle_68 Start: 52987, Stop: 53817, Start Num: 48

Candidate Starts for Candle_68:

(Start: 48 @52987 has 9 MA's), (69, 53032), (75, 53062), (79, 53095), (83, 53119), (96, 53167), (100, 53188), (117, 53281), (127, 53311), (129, 53314), (134, 53326), (156, 53410), (163, 53440), (180, 53524), (182, 53530), (185, 53542), (190, 53560), (197, 53587), (199, 53590), (229, 53686), (234, 53707), (242, 53734),

Gene: Canowicakte_43 Start: 28835, Stop: 29941, Start Num: 17

Candidate Starts for Canowicakte_43:

(Start: 17 @28835 has 4 MA's), (Start: 26 @28892 has 67 MA's), (70, 29033), (89, 29156), (99, 29204), (120, 29339), (126, 29354), (130, 29363), (139, 29417), (146, 29456), (148, 29465), (171, 29540), (218, 29708), (224, 29726), (232, 29756),

Gene: Carpal_43 Start: 28821, Stop: 29864, Start Num: 26

Candidate Starts for Carpal_43:

(Start: 26 @28821 has 67 MA's), (46, 28893), (89, 29082), (120, 29265), (126, 29280), (130, 29289), (138, 29328), (146, 29382), (148, 29391), (161, 29439), (171, 29466), (218, 29634), (221, 29643), (228, 29670), (247, 29736),

Gene: Cborch11_74 Start: 52603, Stop: 53682, Start Num: 58

Candidate Starts for Cborch11_74:

(29, 52492), (Start: 58 @52603 has 16 MA's), (63, 52609), (67, 52621), (74, 52657), (96, 52765), (103, 52813), (109, 52834), (110, 52840), (120, 52900), (124, 52909), (128, 52915), (152, 53017), (160, 53050), (165, 53065), (174, 53104), (180, 53143), (185, 53161), (190, 53179), (191, 53182), (196, 53191), (222, 53257), (228, 53281), (268, 53473), (278, 53620), (279, 53623), (281, 53662), (282, 53671),

Gene: ChewChew_41 Start: 27809, Stop: 28861, Start Num: 26

Candidate Starts for ChewChew_41:

(Start: 26 @27809 has 67 MA's), (46, 27881), (89, 28070), (126, 28268), (130, 28277), (146, 28370), (148, 28379), (171, 28454), (218, 28622), (221, 28631), (228, 28658),

Gene: ChewyVIII_77 Start: 56830, Stop: 56066, Start Num: 65

Candidate Starts for ChewyVIII_77:

(Start: 65 @56830 has 3 MA's), (66, 56821), (74, 56782), (84, 56716), (128, 56524), (168, 56359), (172, 56335), (179, 56287), (186, 56260), (190, 56245),

Gene: Chill_61 Start: 44552, Stop: 45412, Start Num: 62

Candidate Starts for Chill_61:

(37, 44480), (Start: 62 @44552 has 54 MA's), (73, 44597), (76, 44609), (78, 44627), (79, 44639), (83, 44663), (84, 44666), (117, 44819), (120, 44840), (124, 44849), (128, 44855), (148, 44945), (149, 44948), (152, 44957), (158, 44978), (182, 45089), (185, 45101), (190, 45119), (213, 45170), (218, 45179), (228, 45209), (229, 45212),

Gene: Chivey_45 Start: 29369, Stop: 30214, Start Num: 62

Candidate Starts for Chivey_45:

(1, 28808), (6, 28904), (7, 28943), (8, 28949), (11, 28973), (13, 29069), (14, 29105), (Start: 62 @29369 has 54 MA's), (74, 29423), (79, 29459), (83, 29486), (94, 29531), (96, 29534), (102, 29579), (141, 29735), (148, 29771), (151, 29780), (152, 29783), (181, 29912), (185, 29927), (234, 30032), (247, 30074),

Gene: Cholula_43 Start: 28867, Stop: 29910, Start Num: 26

Candidate Starts for Cholula_43:

(Start: 26 @28867 has 67 MA's), (46, 28939), (89, 29128), (120, 29311), (126, 29326), (130, 29335), (138, 29374), (146, 29428), (148, 29437), (161, 29485), (171, 29512), (218, 29680), (221, 29689), (224, 29698), (228, 29716), (247, 29782),

Gene: Chridison_40 Start: 28767, Stop: 29810, Start Num: 26

Candidate Starts for Chridison_40:

(Start: 26 @28767 has 67 MA's), (31, 28812), (66, 28887), (89, 29034), (99, 29082), (130, 29241), (146, 29334), (148, 29343), (162, 29394), (171, 29418), (187, 29499), (218, 29586), (221, 29595), (224, 29604), (228, 29622), (247, 29688),

Gene: Christian_41 Start: 27666, Stop: 28718, Start Num: 26

Candidate Starts for Christian_41:

(Start: 26 @27666 has 67 MA's), (46, 27738), (89, 27927), (126, 28125), (130, 28134), (146, 28227), (148, 28236), (171, 28311), (218, 28479), (221, 28488), (224, 28497), (228, 28515), (232, 28527),

Gene: Cicada_48 Start: 30146, Stop: 31207, Start Num: 25

Candidate Starts for Cicada_48:

(Start: 25 @30146 has 14 MA's), (Start: 27 @30155 has 1 MA's), (38, 30215), (83, 30374), (99, 30449), (109, 30512), (113, 30527), (116, 30554), (130, 30602), (148, 30710), (155, 30731), (175, 30806), (185, 30860), (187, 30866), (188, 30869), (224, 30974), (243, 31046),

Gene: CoffeeBean_64 Start: 48347, Stop: 47496, Start Num: 58

Candidate Starts for CoffeeBean_64:

(Start: 58 @48347 has 16 MA's), (74, 48287), (98, 48167), (101, 48155), (120, 48053), (123, 48044), (132, 48026), (135, 48014), (148, 47942), (185, 47786), (190, 47768), (192, 47762), (239, 47639), (250, 47603), (254, 47582),

Gene: Commandaria_66 Start: 52055, Stop: 51243, Start Num: 44

Candidate Starts for Commandaria_66:

(Start: 44 @52055 has 1 MA's), (74, 51968), (83, 51908), (96, 51851), (97, 51842), (150, 51608), (153, 51599), (159, 51575), (161, 51566), (167, 51548), (185, 51458), (190, 51440), (201, 51425), (202, 51419), (214, 51395),

Gene: CoolCookie_45 Start: 30174, Stop: 31022, Start Num: 62

Candidate Starts for CoolCookie_45:

(7, 29748), (11, 29778), (14, 29910), (Start: 62 @30174 has 54 MA's), (74, 30228), (79, 30264), (83, 30291), (94, 30336), (96, 30339), (102, 30384), (141, 30540), (148, 30576), (151, 30585), (152, 30588), (181, 30717), (185, 30732), (234, 30837), (247, 30879),

Gene: Crestdrop_45 Start: 29400, Stop: 30245, Start Num: 62

Candidate Starts for Crestdrop_45:

(3, 28890), (4, 28896), (5, 28923), (7, 28974), (11, 29004), (14, 29136), (Start: 62 @29400 has 54 MA's), (74, 29454), (79, 29490), (83, 29517), (94, 29562), (96, 29565), (102, 29610), (141, 29766), (148, 29802), (151, 29811), (152, 29814), (181, 29943), (185, 29958), (234, 30063), (247, 30105),

Gene: CristinaYang_41 Start: 27805, Stop: 28854, Start Num: 26

Candidate Starts for CristinaYang_41:

(Start: 26 @27805 has 67 MA's), (46, 27877), (89, 28066), (126, 28264), (130, 28273), (146, 28366), (148, 28375), (171, 28450), (218, 28618), (221, 28627), (228, 28654),

Gene: Crosby_54 Start: 37524, Stop: 38537, Start Num: 30

Candidate Starts for Crosby_54:

(Start: 30 @37524 has 14 MA's), (50, 37605), (Start: 62 @37623 has 54 MA's), (81, 37725), (83, 37752), (85, 37758), (104, 37857), (118, 37941), (121, 37962), (134, 37995), (142, 38061), (146, 38085), (153, 38109), (178, 38217), (182, 38241), (185, 38253), (187, 38259), (194, 38292), (211, 38349), (232, 38415), (238, 38439), (245, 38457),

Gene: Cruella_52 Start: 45078, Stop: 44314, Start Num: 54

Candidate Starts for Cruella_52:

(Start: 54 @45078 has 37 MA's), (99, 44886), (102, 44859), (120, 44784), (175, 44577), (185, 44523), (209, 44478), (234, 44394),

Gene: Cuke_77 Start: 46278, Stop: 47102, Start Num: 47

Candidate Starts for Cuke_77:

(Start: 47 @46278 has 2 MA's), (Start: 52 @46290 has 9 MA's), (Start: 60 @46302 has 8 MA's), (64, 46305), (79, 46389), (83, 46413), (93, 46458), (95, 46461), (111, 46539), (118, 46578), (128, 46611), (134, 46632), (135, 46635), (148, 46701), (150, 46707), (160, 46746), (165, 46761), (183, 46848), (185, 46857), (190, 46875), (204, 46914), (217, 46941), (227, 46971), (229, 46980), (235, 47004), (251, 47055),

Gene: Cybele_45 Start: 30144, Stop: 30992, Start Num: 62

Candidate Starts for Cybele_45:

(7, 29718), (11, 29748), (14, 29880), (Start: 62 @30144 has 54 MA's), (74, 30198), (79, 30234), (83, 30261), (94, 30306), (96, 30309), (102, 30354), (141, 30510), (148, 30546), (151, 30555), (152, 30558), (181, 30687), (185, 30702), (234, 30807), (247, 30849),

Gene: Daiboju_41 Start: 28848, Stop: 29891, Start Num: 26

Candidate Starts for Daiboju_41:

(Start: 21 @28815 has 6 MA's), (Start: 26 @28848 has 67 MA's), (46, 28929), (82, 29067), (89, 29115), (99, 29163), (120, 29298), (130, 29322), (146, 29415), (148, 29424), (162, 29475), (171, 29499), (187, 29580), (218, 29667), (221, 29676), (228, 29703), (247, 29769),

Gene: Dalilpop_69 Start: 52942, Stop: 52163, Start Num: 41

Candidate Starts for Dalilpop_69:

(Start: 41 @52942 has 10 MA's), (74, 52855), (147, 52516), (150, 52507), (158, 52480), (159, 52474), (167, 52447), (175, 52417), (185, 52363), (187, 52357), (190, 52345), (216, 52303), (230, 52267),

Gene: Damien_72 Start: 52565, Stop: 53644, Start Num: 58

Candidate Starts for Damien_72:

(Start: 58 @52565 has 16 MA's), (63, 52571), (67, 52583), (74, 52619), (96, 52727), (103, 52775), (109, 52796), (110, 52802), (120, 52862), (124, 52871), (128, 52877), (152, 52979), (160, 53012), (165, 53027), (174, 53066), (180, 53105), (185, 53123), (190, 53141), (191, 53144), (196, 53153), (222, 53219), (228, 53243), (268, 53435), (278, 53582), (279, 53585), (281, 53624), (282, 53633),

Gene: DannyDe_45 Start: 29375, Stop: 30220, Start Num: 62

Candidate Starts for DannyDe_45:

(1, 28814), (6, 28910), (7, 28949), (8, 28955), (11, 28979), (13, 29075), (14, 29111), (Start: 62 @29375 has 54 MA's), (74, 29429), (79, 29465), (83, 29492), (94, 29537), (96, 29540), (102, 29585), (141, 29741), (148, 29777), (151, 29786), (152, 29789), (181, 29918), (185, 29933), (234, 30038), (247, 30080),

Gene: Darwin_56 Start: 44559, Stop: 43795, Start Num: 54

Candidate Starts for Darwin_56:

(Start: 54 @44559 has 37 MA's), (102, 44340), (118, 44283), (175, 44058), (185, 44004), (209, 43959), (234, 43875),

Gene: Dauntless_44 Start: 29727, Stop: 30572, Start Num: 62

Candidate Starts for Dauntless_44:

(7, 29301), (11, 29331), (12, 29358), (13, 29427), (14, 29463), (Start: 62 @29727 has 54 MA's), (74, 29781), (79, 29817), (83, 29844), (94, 29889), (96, 29892), (102, 29937), (141, 30093), (148, 30129), (151, 30138), (152, 30141), (181, 30270), (185, 30285), (234, 30390), (247, 30432),

Gene: DaviePasture_67 Start: 45399, Stop: 46469, Start Num: 54

Candidate Starts for DaviePasture_67:

(Start: 54 @45399 has 37 MA's), (88, 45531), (99, 45579), (119, 45672), (120, 45681), (124, 45690), (157, 45813), (161, 45834), (170, 45861), (185, 45942), (190, 45960), (200, 45981), (226, 46059), (249, 46143), (259, 46221), (268, 46308), (280, 46440),

Gene: Delton_60 Start: 44887, Stop: 45747, Start Num: 62

Candidate Starts for Delton_60:

(37, 44815), (Start: 62 @44887 has 54 MA's), (73, 44932), (76, 44944), (78, 44962), (79, 44974), (83, 44998), (84, 45001), (117, 45154), (120, 45175), (124, 45184), (128, 45190), (148, 45280), (149, 45283), (152, 45292), (158, 45313), (182, 45424), (185, 45436), (190, 45454), (213, 45505), (218, 45514), (228, 45544), (229, 45547),

Gene: Dino_44 Start: 28953, Stop: 30011, Start Num: 22

Candidate Starts for Dino_44:

(Start: 22 @28953 has 4 MA's), (Start: 26 @28968 has 67 MA's), (46, 29040), (89, 29229), (126, 29427), (130, 29436), (138, 29475), (146, 29529), (148, 29538), (161, 29586), (171, 29613), (218, 29781), (221, 29790), (228, 29817), (247, 29883),

Gene: Djokovic_56 Start: 41804, Stop: 42733, Start Num: 52

Candidate Starts for Djokovic_56:

(Start: 52 @41804 has 9 MA's), (75, 41861), (79, 41894), (112, 42044), (114, 42053), (117, 42077), (120, 42098), (128, 42113), (132, 42125), (135, 42137), (143, 42176), (145, 42191), (155, 42224), (179, 42335), (180, 42341), (185, 42359), (193, 42383), (196, 42389), (207, 42419), (213, 42443), (242, 42536), (267, 42704),

Gene: DoobyDoo_66 Start: 44375, Stop: 45445, Start Num: 54

Candidate Starts for DoobyDoo_66:

(Start: 54 @44375 has 37 MA's), (88, 44507), (99, 44555), (117, 44636), (119, 44648), (120, 44657), (124, 44666), (157, 44789), (161, 44810), (170, 44837), (185, 44918), (190, 44936), (200, 44957), (226, 45035), (249, 45119), (268, 45284), (280, 45416),

Gene: DrLupo_79 Start: 52740, Stop: 53756, Start Num: 62

Candidate Starts for DrLupo_79:

(Start: 62 @52740 has 54 MA's), (86, 52866), (87, 52872), (92, 52896), (102, 52956), (103, 52959), (112, 52995), (114, 53004), (120, 53049), (124, 53058), (128, 53064), (133, 53082), (137, 53100), (149, 53163), (156, 53184), (175, 53262), (180, 53307), (185, 53325), (190, 53343), (192, 53349), (222, 53418), (247, 53508), (258, 53577), (276, 53739),

Gene: DrRobert_40 Start: 27446, Stop: 28498, Start Num: 26

Candidate Starts for DrRobert_40:

(Start: 26 @27446 has 67 MA's), (46, 27518), (89, 27707), (126, 27905), (130, 27914), (146, 28007), (148, 28016), (161, 28064), (171, 28091), (218, 28259), (221, 28268), (224, 28277), (228, 28295), (232, 28307),

Gene: DreamTeam_41 Start: 27775, Stop: 28827, Start Num: 26

Candidate Starts for DreamTeam_41:

(Start: 16 @27712 has 2 MA's), (Start: 26 @27775 has 67 MA's), (46, 27847), (69, 27901), (89, 28036), (109, 28153), (130, 28243), (146, 28336), (148, 28345), (159, 28384), (162, 28396), (171, 28420), (210, 28561), (218, 28588), (224, 28606), (228, 28624), (247, 28690),

Gene: Dryad_68 Start: 46911, Stop: 46123, Start Num: 60

Candidate Starts for Dryad_68:

(Start: 60 @46911 has 8 MA's), (69, 46884), (74, 46857), (77, 46848), (79, 46821), (83, 46797), (84, 46794), (119, 46635), (143, 46545), (144, 46539), (154, 46500), (159, 46479), (185, 46362), (187, 46356), (200, 46338), (215, 46311), (240, 46239),

Gene: DumpTruck_66 Start: 44187, Stop: 45317, Start Num: 54

Candidate Starts for DumpTruck_66:

(Start: 54 @44187 has 37 MA's), (79, 44283), (88, 44322), (99, 44370), (117, 44451), (119, 44463), (120, 44472), (124, 44481), (161, 44625), (185, 44733), (190, 44751), (200, 44772), (207, 44796), (208, 44799), (226, 44850), (257, 44991), (271, 45147), (280, 45285),

Gene: Emianna_65 Start: 52042, Stop: 51221, Start Num: 49

Candidate Starts for Emianna_65:

(40, 52069), (Start: 49 @52042 has 24 MA's), (74, 51970), (116, 51748), (150, 51607), (153, 51598), (167, 51547), (175, 51511), (185, 51457), (190, 51439), (201, 51424), (244, 51301),

Gene: Ennea_72 Start: 53024, Stop: 52245, Start Num: 41

Candidate Starts for Ennea_72:

(Start: 41 @53024 has 10 MA's), (74, 52940), (150, 52592), (167, 52532), (175, 52496), (185, 52442), (190, 52424), (212, 52391), (216, 52382), (241, 52307), (244, 52295),

Gene: Erk16_58 Start: 44591, Stop: 45451, Start Num: 62

Candidate Starts for Erk16_58:

(Start: 62 @44591 has 54 MA's), (73, 44636), (76, 44648), (78, 44666), (79, 44678), (83, 44702), (84, 44705), (117, 44858), (120, 44879), (124, 44888), (128, 44894), (148, 44984), (149, 44987), (152, 44996), (158, 45017), (182, 45128), (185, 45140), (190, 45158), (213, 45209), (218, 45218), (228, 45248), (229, 45251),

Gene: Erudite_44 Start: 29727, Stop: 30572, Start Num: 62

Candidate Starts for Erudite_44:

(7, 29301), (11, 29331), (12, 29358), (13, 29427), (14, 29463), (Start: 62 @29727 has 54 MA's), (74, 29781), (79, 29817), (83, 29844), (94, 29889), (96, 29892), (102, 29937), (141, 30093), (148, 30129), (151, 30138), (152, 30141), (181, 30270), (185, 30285), (234, 30390), (247, 30432),

Gene: Erutan_67 Start: 45017, Stop: 46087, Start Num: 54

Candidate Starts for Erutan_67:

(Start: 54 @45017 has 37 MA's), (88, 45149), (99, 45197), (119, 45290), (120, 45299), (124, 45308), (157, 45431), (161, 45452), (170, 45479), (185, 45560), (190, 45578), (200, 45599), (226, 45677), (249, 45761), (261, 45842), (280, 46058),

Gene: EstebanJulior_42 Start: 28824, Stop: 29876, Start Num: 26

Candidate Starts for EstebanJulior_42:

(Start: 26 @28824 has 67 MA's), (46, 28896), (126, 29283), (130, 29292), (146, 29385), (148, 29394), (161, 29442), (171, 29469), (187, 29550), (218, 29637), (221, 29646), (228, 29673),

Gene: Eunoia_41 Start: 28837, Stop: 29880, Start Num: 26

Candidate Starts for Eunoia_41:

(Start: 26 @28837 has 67 MA's), (89, 29104), (130, 29311), (138, 29350), (145, 29401), (146, 29404), (148, 29413), (162, 29464), (171, 29488), (187, 29569), (228, 29692), (247, 29758),

Gene: FireCastle_47 Start: 29953, Stop: 31011, Start Num: 25

Candidate Starts for FireCastle_47:

(Start: 25 @29953 has 14 MA's), (Start: 27 @29962 has 1 MA's), (39, 30022), (68, 30079), (100, 30259), (106, 30298), (109, 30319), (113, 30334), (148, 30517), (155, 30538), (156, 30541), (159, 30556), (160, 30562), (171, 30592), (175, 30613), (185, 30667), (187, 30673), (188, 30676), (231, 30808), (232, 30811), (243, 30853), (265, 30976),

Gene: Flapper_68 Start: 52133, Stop: 51354, Start Num: 41

Candidate Starts for Flapper_68:

(Start: 41 @52133 has 10 MA's), (74, 52046), (84, 51983), (147, 51707), (150, 51698), (159, 51665), (167, 51638), (175, 51608), (185, 51554), (187, 51548), (190, 51536), (192, 51530), (216, 51494), (230, 51458),

Gene: Float294_66 Start: 52739, Stop: 51960, Start Num: 41

Candidate Starts for Float294_66:

(Start: 41 @52739 has 10 MA's), (74, 52655), (87, 52580), (150, 52307), (167, 52247), (175, 52211), (185, 52157), (190, 52139), (212, 52106), (216, 52097), (241, 52022), (244, 52010),

Gene: Fluke_44 Start: 29084, Stop: 30127, Start Num: 26

Candidate Starts for Fluke_44:

(Start: 26 @29084 has 67 MA's), (46, 29156), (Start: 65 @29189 has 3 MA's), (69, 29210), (89, 29345), (120, 29528), (126, 29543), (130, 29552), (146, 29645), (148, 29654), (162, 29705), (171, 29729), (210, 29870), (218, 29897), (224, 29915), (228, 29933), (247, 29999),

Gene: Fowlmouth_78 Start: 48807, Stop: 49670, Start Num: 36

Candidate Starts for Fowlmouth_78:

(Start: 36 @48807 has 2 MA's), (84, 48993), (93, 49035), (95, 49038), (111, 49116), (115, 49146), (128, 49188), (132, 49200), (135, 49212), (147, 49275), (150, 49284), (160, 49323), (183, 49425), (185, 49434), (204, 49491), (227, 49548), (229, 49557), (235, 49581), (251, 49632),

Gene: Foxboro_66 Start: 52567, Stop: 51746, Start Num: 49

Candidate Starts for Foxboro_66:

(40, 52594), (Start: 49 @52567 has 24 MA's), (74, 52495), (116, 52273), (150, 52132), (153, 52123), (167, 52072), (175, 52036), (185, 51982), (190, 51964), (201, 51949),

Gene: FreddieHg_45 Start: 29385, Stop: 30230, Start Num: 62

Candidate Starts for FreddieHg_45:

(1, 28824), (6, 28920), (7, 28959), (8, 28965), (11, 28989), (13, 29085), (14, 29121), (Start: 62 @29385 has 54 MA's), (74, 29439), (79, 29475), (83, 29502), (94, 29547), (96, 29550), (102, 29595), (141, 29751), (148, 29787), (151, 29796), (152, 29799), (181, 29928), (185, 29943), (234, 30048), (247, 30090),

Gene: Frizzle_32 Start: 29118, Stop: 28120, Start Num: 30

Candidate Starts for Frizzle_32:

(Start: 30 @29118 has 14 MA's), (86, 28893), (87, 28887), (117, 28719), (122, 28689), (139, 28638), (142, 28623), (145, 28602), (146, 28599), (160, 28545), (161, 28542), (165, 28530), (233, 28308), (236, 28299),

Gene: Fulcrum_67 Start: 45099, Stop: 46190, Start Num: 54

Candidate Starts for Fulcrum_67:

(Start: 54 @45099 has 37 MA's), (88, 45231), (99, 45279), (117, 45360), (119, 45372), (120, 45381), (124, 45390), (157, 45513), (161, 45534), (170, 45561), (185, 45642), (190, 45660), (200, 45681), (226, 45759), (249, 45843), (268, 46008), (269, 46017), (280, 46161),

Gene: Fury_74 Start: 51253, Stop: 50462, Start Num: 41

Candidate Starts for Fury_74:

(Start: 41 @51253 has 10 MA's), (74, 51157), (120, 50923), (150, 50812), (153, 50803), (158, 50785), (160, 50773), (167, 50752), (185, 50662), (190, 50644), (201, 50629), (228, 50569),

Gene: GOATification_67 Start: 45099, Stop: 46190, Start Num: 54

Candidate Starts for GOATification_67:

(Start: 54 @45099 has 37 MA's), (88, 45231), (99, 45279), (117, 45360), (119, 45372), (120, 45381), (124, 45390), (157, 45513), (161, 45534), (170, 45561), (185, 45642), (190, 45660), (200, 45681), (226, 45759), (249, 45843), (268, 46008), (269, 46017), (280, 46161),

Gene: GRU1_54 Start: 43981, Stop: 43202, Start Num: 41

Candidate Starts for GRU1_54:

(Start: 41 @43981 has 10 MA's), (74, 43894), (147, 43555), (150, 43546), (159, 43513), (167, 43486), (175, 43456), (185, 43402), (187, 43396), (190, 43384), (201, 43369), (216, 43342), (230, 43306),

Gene: GTE5_54 Start: 45013, Stop: 44234, Start Num: 41

Candidate Starts for GTE5_54:

(Start: 41 @45013 has 10 MA's), (74, 44926), (147, 44587), (150, 44578), (159, 44545), (167, 44518), (175, 44488), (185, 44434), (187, 44428), (190, 44416), (216, 44374), (230, 44338),

Gene: GTE8_54 Start: 45279, Stop: 44458, Start Num: 49

Candidate Starts for GTE8_54:

(40, 45306), (Start: 49 @45279 has 24 MA's), (74, 45207), (116, 44985), (150, 44844), (153, 44835), (167, 44784), (175, 44748), (185, 44694), (190, 44676), (201, 44661), (245, 44535),

Gene: Genamy16_70 Start: 44473, Stop: 45543, Start Num: 54

Candidate Starts for Genamy16_70:

(Start: 54 @44473 has 37 MA's), (80, 44569), (88, 44605), (99, 44653), (119, 44746), (120, 44755), (124, 44764), (157, 44887), (161, 44908), (170, 44935), (185, 45016), (190, 45034), (200, 45055), (226, 45133), (249, 45217), (280, 45514),

Gene: Ghobes_31 Start: 29118, Stop: 28120, Start Num: 30

Candidate Starts for Ghobes_31:

(Start: 30 @29118 has 14 MA's), (86, 28893), (87, 28887), (117, 28719), (122, 28689), (139, 28638), (142, 28623), (145, 28602), (146, 28599), (160, 28545), (161, 28542), (179, 28476), (233, 28308), (236, 28299),

Gene: Gibbin_69 Start: 45904, Stop: 46995, Start Num: 54

Candidate Starts for Gibbin_69:

(Start: 54 @45904 has 37 MA's), (88, 46036), (99, 46084), (119, 46177), (120, 46186), (124, 46195), (157, 46318), (161, 46339), (170, 46366), (185, 46447), (190, 46465), (200, 46486), (226, 46564), (249, 46648), (268, 46813), (269, 46822), (280, 46966),

Gene: Gibson_64 Start: 46180, Stop: 45395, Start Num: 60

Candidate Starts for Gibson_64:

(Start: 60 @46180 has 8 MA's), (74, 46126), (77, 46117), (79, 46090), (83, 46066), (96, 46018), (118, 45913), (143, 45814), (144, 45808), (154, 45769), (159, 45748), (177, 45676), (185, 45631), (187, 45625), (200, 45607), (215, 45580), (240, 45508),

Gene: Gilda_45 Start: 30168, Stop: 31013, Start Num: 62

Candidate Starts for Gilda_45:

(7, 29742), (11, 29772), (14, 29904), (Start: 62 @30168 has 54 MA's), (74, 30222), (79, 30258), (83, 30285), (94, 30330), (96, 30333), (102, 30378), (141, 30534), (148, 30570), (151, 30579), (152, 30582), (181, 30711), (185, 30726), (234, 30831), (247, 30873),

Gene: Gisselle_41 Start: 27775, Stop: 28827, Start Num: 26

Candidate Starts for Gisselle_41:

(Start: 16 @27712 has 2 MA's), (Start: 26 @27775 has 67 MA's), (46, 27847), (69, 27901), (89, 28036), (109, 28153), (130, 28243), (146, 28336), (148, 28345), (159, 28384), (162, 28396), (171, 28420), (210, 28561), (218, 28588), (224, 28606), (228, 28624), (247, 28690),

Gene: Giuseppe_60 Start: 44457, Stop: 45317, Start Num: 62

Candidate Starts for Giuseppe_60:

(37, 44385), (Start: 62 @44457 has 54 MA's), (73, 44502), (76, 44514), (78, 44532), (79, 44544), (83, 44568), (84, 44571), (117, 44724), (120, 44745), (124, 44754), (128, 44760), (148, 44850), (149, 44853), (152, 44862), (158, 44883), (182, 44994), (185, 45006), (190, 45024), (213, 45075), (218, 45084), (228, 45114), (229, 45117),

Gene: Glenn_44 Start: 29075, Stop: 30118, Start Num: 26

Candidate Starts for Glenn_44:

(Start: 26 @29075 has 67 MA's), (46, 29147), (Start: 65 @29180 has 3 MA's), (69, 29201), (89, 29336), (126, 29534), (130, 29543), (146, 29636), (148, 29645), (159, 29684), (162, 29696), (171, 29720), (206, 29852), (210, 29861), (218, 29888), (224, 29906), (228, 29924), (247, 29990),

Gene: Goodman_47 Start: 29916, Stop: 30977, Start Num: 25

Candidate Starts for Goodman_47:

(Start: 25 @29916 has 14 MA's), (Start: 27 @29925 has 1 MA's), (38, 29985), (99, 30219), (109, 30282), (113, 30297), (116, 30324), (130, 30372), (148, 30480), (155, 30501), (165, 30540), (175, 30576), (185, 30630), (187, 30636), (188, 30639), (224, 30744), (243, 30816),

Gene: GreenHearts_45 Start: 29737, Stop: 30792, Start Num: 26

Candidate Starts for GreenHearts_45:

(Start: 26 @29737 has 67 MA's), (69, 29863), (89, 29998), (130, 30205), (138, 30244), (139, 30259), (145, 30295), (146, 30298), (148, 30307), (162, 30358), (171, 30382), (218, 30550), (221, 30559), (228, 30586), (232, 30598),

Gene: Greenhouse_45 Start: 29457, Stop: 30509, Start Num: 26

Candidate Starts for Greenhouse_45:

(Start: 26 @29457 has 67 MA's), (69, 29583), (89, 29718), (130, 29925), (138, 29964), (139, 29979), (145, 30015), (146, 30018), (148, 30027), (158, 30060), (162, 30078), (171, 30102), (210, 30243), (218, 30270), (228, 30306), (232, 30318), (263, 30468),

Gene: Gretellyn_67 Start: 45889, Stop: 46959, Start Num: 54

Candidate Starts for Gretellyn_67:

(Start: 54 @45889 has 37 MA's), (88, 46021), (99, 46069), (119, 46162), (120, 46171), (124, 46180), (157, 46303), (161, 46324), (170, 46351), (185, 46432), (190, 46450), (200, 46471), (226, 46549), (249, 46633), (268, 46798), (280, 46930),

Gene: GrootJr_67 Start: 51436, Stop: 50615, Start Num: 49

Candidate Starts for GrootJr_67:

(40, 51463), (Start: 49 @51436 has 24 MA's), (74, 51364), (116, 51142), (150, 51001), (153, 50992), (167, 50941), (175, 50905), (185, 50851), (190, 50833), (201, 50818), (244, 50695),

Gene: Gumball_59 Start: 44949, Stop: 45809, Start Num: 62

Candidate Starts for Gumball_59:

(37, 44877), (Start: 62 @44949 has 54 MA's), (73, 44994), (76, 45006), (78, 45024), (79, 45036), (83, 45060), (84, 45063), (117, 45216), (120, 45237), (124, 45246), (128, 45252), (148, 45342), (149, 45345), (152, 45354), (158, 45375), (182, 45486), (185, 45498), (190, 45516), (213, 45567), (218, 45576), (228, 45606), (229, 45609),

Gene: GuyFagieri_63 Start: 48427, Stop: 47585, Start Num: 58

Candidate Starts for GuyFagieri_63:

(43, 48457), (45, 48454), (Start: 58 @48427 has 16 MA's), (74, 48367), (98, 48247), (99, 48244), (116, 48157), (120, 48133), (123, 48124), (132, 48106), (137, 48082), (148, 48022), (153, 48007), (177, 47911), (185, 47866), (190, 47848), (201, 47833), (239, 47719), (250, 47683), (254, 47662),

Gene: Hager_46 Start: 29593, Stop: 30441, Start Num: 62

Candidate Starts for Hager_46:

(8, 29173), (9, 29188), (10, 29191), (11, 29197), (Start: 62 @29593 has 54 MA's), (72, 29635), (74, 29647), (79, 29683), (83, 29710), (94, 29755), (96, 29758), (102, 29803), (141, 29959), (148, 29995), (151, 30004), (152, 30007), (160, 30040), (181, 30136), (185, 30151), (234, 30256), (247, 30298),

Gene: Haunter_45 Start: 29551, Stop: 30396, Start Num: 62

Candidate Starts for Haunter_45:

(7, 29125), (11, 29155), (12, 29182), (13, 29251), (14, 29287), (Start: 62 @29551 has 54 MA's), (74, 29605), (79, 29641), (83, 29668), (94, 29713), (96, 29716), (102, 29761), (141, 29917), (148, 29953), (151, 29962), (152, 29965), (181, 30094), (185, 30109), (234, 30214), (236, 30220), (247, 30256),

Gene: Hawkeye_66 Start: 44818, Stop: 45684, Start Num: 65

Candidate Starts for Hawkeye_66:

(42, 44773), (59, 44806), (Start: 62 @44815 has 54 MA's), (Start: 65 @44818 has 3 MA's), (84, 44929), (91, 44962), (117, 45082), (119, 45094), (120, 45103), (124, 45112), (128, 45118), (148, 45208), (149, 45211), (152, 45220), (165, 45268), (185, 45364), (190, 45382), (213, 45436), (218, 45445), (253, 45556),

Gene: HeadNerd_41 Start: 27619, Stop: 28668, Start Num: 26

Candidate Starts for HeadNerd_41:

(Start: 26 @27619 has 67 MA's), (46, 27691), (89, 27880), (126, 28078), (130, 28087), (138, 28126), (146, 28180), (148, 28189), (161, 28237), (171, 28264), (218, 28432), (221, 28441), (228, 28468),

Gene: Helpful_62 Start: 44818, Stop: 45678, Start Num: 62

Candidate Starts for Helpful_62:

(37, 44746), (Start: 62 @44818 has 54 MA's), (73, 44863), (76, 44875), (78, 44893), (79, 44905), (83, 44929), (84, 44932), (117, 45085), (120, 45106), (124, 45115), (128, 45121), (148, 45211), (149, 45214), (152, 45223), (158, 45244), (182, 45355), (185, 45367), (190, 45385), (213, 45436), (218, 45445), (228, 45475), (229, 45478),

Gene: Henococcus_54 Start: 37465, Stop: 38475, Start Num: 30

Candidate Starts for Henococcus_54:

(18, 37369), (Start: 30 @37465 has 14 MA's), (Start: 62 @37561 has 54 MA's), (81, 37663), (83, 37690), (85, 37696), (118, 37879), (134, 37933), (138, 37957), (142, 37999), (146, 38023), (149, 38035), (162, 38083), (185, 38191), (187, 38197), (211, 38287), (219, 38311), (225, 38326), (232, 38353), (237, 38374), (238, 38377), (245, 38395), (248, 38404),

Gene: Herb_41 Start: 28814, Stop: 29890, Start Num: 21

Candidate Starts for Herb_41:

(Start: 21 @28814 has 6 MA's), (Start: 26 @28847 has 67 MA's), (46, 28928), (82, 29066), (89, 29114), (99, 29162), (120, 29297), (130, 29321), (146, 29414), (148, 29423), (162, 29474), (171, 29498), (187, 29579), (218, 29666), (221, 29675), (228, 29702), (247, 29768),

Gene: Hiddenleaf_45 Start: 29369, Stop: 30214, Start Num: 62

Candidate Starts for Hiddenleaf_45:

(1, 28808), (6, 28904), (7, 28943), (8, 28949), (11, 28973), (13, 29069), (14, 29105), (Start: 62 @29369 has 54 MA's), (74, 29423), (79, 29459), (83, 29486), (94, 29531), (96, 29534), (102, 29579), (141, 29735), (148, 29771), (151, 29780), (152, 29783), (181, 29912), (185, 29927), (234, 30032), (247, 30074),

Gene: Htur_48 Start: 30379, Stop: 31446, Start Num: 25

Candidate Starts for Htur_48:

(23, 30373), (Start: 25 @30379 has 14 MA's), (Start: 27 @30388 has 1 MA's), (38, 30448), (99, 30688), (100, 30691), (109, 30751), (113, 30766), (116, 30793), (119, 30808), (130, 30841), (148, 30949), (153, 30964), (155, 30970), (162, 31000), (175, 31045), (185, 31099), (187, 31105), (188, 31108), (231, 31240), (232, 31243), (243, 31285),

Gene: HubbaBubba_60 Start: 46888, Stop: 46091, Start Num: 49

Candidate Starts for HubbaBubba_60:

(Start: 49 @46888 has 24 MA's), (74, 46813), (142, 46507), (147, 46477), (150, 46468), (153, 46459), (167, 46405), (177, 46360), (179, 46339), (182, 46327), (185, 46315), (190, 46297), (228, 46216), (252, 46138),

Gene: Huckleberry_41 Start: 27602, Stop: 28651, Start Num: 26

Candidate Starts for Huckleberry_41:

(Start: 26 @27602 has 67 MA's), (46, 27674), (89, 27863), (108, 27968), (126, 28061), (130, 28070), (138, 28109), (146, 28163), (148, 28172), (161, 28220), (171, 28247), (187, 28328), (218, 28415), (221, 28424), (228, 28451),

Gene: HunterDalle_41 Start: 28766, Stop: 29809, Start Num: 26

Candidate Starts for HunterDalle_41:

(Start: 26 @28766 has 67 MA's), (31, 28811), (66, 28886), (89, 29033), (99, 29081), (130, 29240), (146, 29333), (148, 29342), (162, 29393), (171, 29417), (187, 29498), (218, 29585), (221, 29594), (224, 29603), (228, 29621), (247, 29687),

Gene: Huntingdon_43 Start: 29269, Stop: 30324, Start Num: 26

Candidate Starts for Huntingdon_43:

(Start: 26 @29269 has 67 MA's), (69, 29395), (89, 29530), (99, 29578), (125, 29725), (130, 29737), (139, 29791), (146, 29830), (148, 29839), (162, 29890), (171, 29914), (175, 29935), (210, 30055), (218, 30082), (224, 30100), (228, 30118), (232, 30130), (252, 30199),

Gene: IDyn_64 Start: 48323, Stop: 47526, Start Num: 49

Candidate Starts for IDyn_64:

(40, 48350), (Start: 49 @48323 has 24 MA's), (74, 48248), (107, 48074), (142, 47942), (147, 47912), (150, 47903), (153, 47894), (167, 47840), (177, 47795), (179, 47774), (182, 47762), (185, 47750), (190, 47732), (228, 47651), (252, 47573),

Gene: Immaculata_43 Start: 28867, Stop: 29910, Start Num: 26

Candidate Starts for Immaculata_43:

(Start: 26 @28867 has 67 MA's), (46, 28939), (89, 29128), (120, 29311), (126, 29326), (130, 29335), (138, 29374), (146, 29428), (148, 29437), (161, 29485), (171, 29512), (218, 29680), (221, 29689), (228, 29716), (247, 29782),

Gene: IndiRoo_49 Start: 28952, Stop: 30028, Start Num: 25

Candidate Starts for IndiRoo_49:

(Start: 25 @28952 has 14 MA's), (38, 29021), (74, 29120), (96, 29246), (99, 29264), (113, 29342), (130, 29417), (148, 29525), (155, 29546), (159, 29564), (162, 29576), (175, 29621), (185, 29675), (187, 29681), (188, 29684), (224, 29789), (226, 29795), (231, 29816), (232, 29819),

Gene: Indlulamithi_69 Start: 49597, Stop: 50433, Start Num: 47

Candidate Starts for Indlulamithi_69:

(Start: 47 @49597 has 2 MA's), (64, 49612), (118, 49894), (128, 49930), (132, 49942), (134, 49951), (135, 49954), (149, 50023), (150, 50026), (159, 50059), (160, 50065), (167, 50086), (168, 50089), (179, 50152), (184, 50173), (185, 50176), (190, 50194), (195, 50212), (224, 50281), (229, 50302), (236, 50329), (251, 50377), (255, 50398),

Gene: Intolerant_51 Start: 37465, Stop: 38478, Start Num: 30

Candidate Starts for Intolerant_51:

(Start: 30 @37465 has 14 MA's), (34, 37489), (51, 37549), (Start: 62 @37564 has 54 MA's), (81, 37666), (83, 37693), (85, 37699), (104, 37798), (118, 37882), (121, 37903), (134, 37936), (142, 38002), (146, 38026), (153, 38050), (178, 38158), (182, 38182), (185, 38194), (187, 38200), (211, 38290), (232, 38356), (238, 38380), (245, 38398),

Gene: JDawG_44 Start: 29786, Stop: 30631, Start Num: 62

Candidate Starts for JDawG_44:

(1, 29225), (6, 29321), (7, 29360), (13, 29486), (14, 29522), (Start: 62 @29786 has 54 MA's), (74, 29840), (79, 29876), (83, 29903), (94, 29948), (96, 29951), (102, 29996), (141, 30152), (148, 30188), (151, 30197), (152, 30200), (181, 30329), (185, 30344), (234, 30449), (247, 30491),

Gene: JackieB_54 Start: 37297, Stop: 38307, Start Num: 30

Candidate Starts for JackieB_54:

(19, 37207), (Start: 30 @37297 has 14 MA's), (Start: 62 @37393 has 54 MA's), (81, 37495), (83, 37522), (85, 37528), (118, 37711), (134, 37765), (138, 37789), (142, 37831), (146, 37855), (149, 37867), (162, 37915), (185, 38023), (187, 38029), (211, 38119), (219, 38143), (225, 38158), (232,

38185), (237, 38206), (238, 38209), (245, 38227), (248, 38236),

Gene: Jalebi_66 Start: 46242, Stop: 47312, Start Num: 54

Candidate Starts for Jalebi_66:

(Start: 54 @46242 has 37 MA's), (88, 46374), (99, 46422), (117, 46503), (119, 46515), (120, 46524), (124, 46533), (157, 46656), (161, 46677), (170, 46704), (185, 46785), (190, 46803), (200, 46824), (226, 46902), (249, 46986), (259, 47064), (268, 47151), (280, 47283),

Gene: Jamemuya19_67 Start: 44078, Stop: 45148, Start Num: 54

Candidate Starts for Jamemuya19_67:

(Start: 54 @44078 has 37 MA's), (80, 44174), (88, 44210), (99, 44258), (119, 44351), (120, 44360), (124, 44369), (157, 44492), (161, 44513), (170, 44540), (185, 44621), (190, 44639), (200, 44660), (226, 44738), (249, 44822), (280, 45119),

Gene: Jera_47 Start: 28716, Stop: 29780, Start Num: 25

Candidate Starts for Jera_47:

(Start: 25 @28716 has 14 MA's), (Start: 27 @28725 has 1 MA's), (38, 28785), (96, 29001), (100, 29022), (109, 29082), (113, 29097), (130, 29172), (148, 29280), (155, 29301), (160, 29325), (175, 29376), (185, 29430), (187, 29436), (188, 29439), (224, 29544), (226, 29550), (243, 29616),

Gene: Jifall16_64 Start: 51698, Stop: 50877, Start Num: 49

Candidate Starts for Jifall16_64:

(Start: 49 @51698 has 24 MA's), (74, 51626), (116, 51404), (150, 51263), (153, 51254), (167, 51203), (175, 51167), (185, 51113), (190, 51095), (201, 51080), (244, 50957),

Gene: JingleBells_45 Start: 29520, Stop: 30365, Start Num: 62

Candidate Starts for JingleBells_45:

(7, 29094), (8, 29100), (11, 29124), (13, 29220), (14, 29256), (Start: 62 @29520 has 54 MA's), (74, 29574), (79, 29610), (83, 29637), (94, 29682), (96, 29685), (102, 29730), (141, 29886), (148, 29922), (151, 29931), (152, 29934), (181, 30063), (185, 30078), (234, 30183), (247, 30225),

Gene: Joann_45 Start: 29532, Stop: 30584, Start Num: 26

Candidate Starts for Joann_45:

(Start: 26 @29532 has 67 MA's), (69, 29658), (89, 29793), (99, 29841), (130, 30000), (138, 30039), (139, 30054), (145, 30090), (146, 30093), (148, 30102), (162, 30153), (171, 30177), (210, 30318), (218, 30345), (228, 30381), (232, 30393), (263, 30543),

Gene: Johann_47 Start: 29916, Stop: 30977, Start Num: 25

Candidate Starts for Johann_47:

(Start: 25 @29916 has 14 MA's), (Start: 27 @29925 has 1 MA's), (38, 29985), (99, 30219), (109, 30282), (113, 30297), (116, 30324), (130, 30372), (148, 30480), (155, 30501), (165, 30540), (175, 30576), (185, 30630), (187, 30636), (188, 30639), (224, 30744), (243, 30816),

Gene: Jumboset_44 Start: 28983, Stop: 30026, Start Num: 26

Candidate Starts for Jumboset_44:

(Start: 26 @28983 has 67 MA's), (46, 29055), (Start: 65 @29088 has 3 MA's), (69, 29109), (89, 29244), (126, 29442), (130, 29451), (146, 29544), (148, 29553), (159, 29592), (162, 29604), (171, 29628), (206, 29760), (210, 29769), (218, 29796), (224, 29814), (228, 29832), (247, 29898),

Gene: Kabluna_68 Start: 51031, Stop: 50168, Start Num: 49

Candidate Starts for Kabluna_68:

(Start: 30 @51109 has 14 MA's), (Start: 49 @51031 has 24 MA's), (90, 50869), (116, 50743), (150, 50602), (159, 50569), (167, 50542), (179, 50476), (185, 50452), (190, 50434), (220, 50380), (230,

50350), (242, 50305),

Gene: Kalizoi_43 Start: 28808, Stop: 29851, Start Num: 26

Candidate Starts for Kalizoi_43:

(Start: 26 @28808 has 67 MA's), (46, 28880), (Start: 65 @28913 has 3 MA's), (69, 28934), (89, 29069), (126, 29267), (130, 29276), (146, 29369), (148, 29378), (162, 29429), (171, 29453), (210, 29594), (218, 29621), (224, 29639), (228, 29657), (247, 29723),

Gene: KandZ_58 Start: 44615, Stop: 45475, Start Num: 62

Candidate Starts for KandZ_58:

(37, 44543), (Start: 62 @44615 has 54 MA's), (73, 44660), (76, 44672), (78, 44690), (79, 44702), (83, 44726), (84, 44729), (117, 44882), (120, 44903), (124, 44912), (128, 44918), (148, 45008), (149, 45011), (152, 45020), (158, 45041), (182, 45152), (185, 45164), (190, 45182), (213, 45233), (218, 45242), (228, 45272), (229, 45275),

Gene: Karate_44 Start: 30169, Stop: 31014, Start Num: 62

Candidate Starts for Karate_44:

(6, 29704), (7, 29743), (11, 29773), (14, 29905), (Start: 62 @30169 has 54 MA's), (74, 30223), (79, 30259), (83, 30286), (94, 30331), (96, 30334), (102, 30379), (141, 30535), (148, 30571), (151, 30580), (152, 30583), (181, 30712), (185, 30727), (234, 30832), (247, 30874),

Gene: Kate_46 Start: 30176, Stop: 31024, Start Num: 62

Candidate Starts for Kate_46:

(7, 29750), (11, 29780), (14, 29912), (Start: 62 @30176 has 54 MA's), (74, 30230), (79, 30266), (83, 30293), (94, 30338), (96, 30341), (102, 30386), (141, 30542), (148, 30578), (151, 30587), (152, 30590), (181, 30719), (185, 30734), (234, 30839), (247, 30881),

Gene: KidneyBean_65 Start: 51822, Stop: 51001, Start Num: 49

Candidate Starts for KidneyBean_65:

(Start: 49 @51822 has 24 MA's), (74, 51750), (116, 51528), (150, 51387), (153, 51378), (167, 51327), (175, 51291), (185, 51237), (190, 51219), (201, 51204), (244, 51081),

Gene: Kimchi1738_53 Start: 45055, Stop: 44291, Start Num: 54

Candidate Starts for Kimchi1738_53:

(Start: 54 @45055 has 37 MA's), (102, 44836), (175, 44554), (185, 44500), (209, 44455), (234, 44371),

Gene: KingBob_41 Start: 28815, Stop: 29891, Start Num: 21

Candidate Starts for KingBob_41:

(Start: 21 @28815 has 6 MA's), (Start: 26 @28848 has 67 MA's), (46, 28929), (82, 29067), (89, 29115), (99, 29163), (120, 29298), (130, 29322), (146, 29415), (148, 29424), (162, 29475), (171, 29499), (187, 29580), (218, 29667), (221, 29676), (228, 29703), (247, 29769),

Gene: Kittykat_43 Start: 28006, Stop: 29121, Start Num: 16

Candidate Starts for Kittykat_43:

(Start: 16 @28006 has 2 MA's), (Start: 26 @28069 has 67 MA's), (46, 28141), (69, 28195), (89, 28330), (130, 28537), (146, 28630), (148, 28639), (159, 28678), (162, 28690), (171, 28714), (179, 28765), (210, 28855), (218, 28882), (224, 28900), (228, 28918), (247, 28984),

Gene: Konstantine_76 Start: 53396, Stop: 54475, Start Num: 58

Candidate Starts for Konstantine_76:

(Start: 58 @53396 has 16 MA's), (67, 53414), (74, 53450), (96, 53558), (103, 53606), (109, 53627), (110, 53633), (120, 53693), (124, 53702), (128, 53708), (152, 53810), (160, 53843), (165, 53858),

(174, 53897), (180, 53936), (185, 53954), (190, 53972), (191, 53975), (196, 53984), (222, 54050), (228, 54074), (268, 54266), (278, 54413), (279, 54416), (281, 54455), (282, 54464),

Gene: Korra_43 Start: 28820, Stop: 29863, Start Num: 26

Candidate Starts for Korra_43:

(Start: 26 @28820 has 67 MA's), (46, 28892), (89, 29081), (126, 29279), (130, 29288), (138, 29327), (146, 29381), (148, 29390), (161, 29438), (171, 29465), (218, 29633), (221, 29642), (228, 29669), (247, 29735),

Gene: Kors_50 Start: 31190, Stop: 32032, Start Num: 56

Candidate Starts for Kors_50:

(Start: 56 @31190 has 4 MA's), (76, 31253), (92, 31337), (94, 31349), (96, 31352), (133, 31514), (148, 31586), (166, 31649), (169, 31658), (181, 31727), (185, 31742), (247, 31889),

Gene: Krampus_45 Start: 30176, Stop: 31024, Start Num: 62

Candidate Starts for Krampus_45:

(7, 29750), (11, 29780), (14, 29912), (Start: 62 @30176 has 54 MA's), (74, 30230), (79, 30266), (83, 30293), (94, 30338), (96, 30341), (102, 30386), (141, 30542), (148, 30578), (151, 30587), (152, 30590), (181, 30719), (185, 30734), (234, 30839), (247, 30881),

Gene: Kurt_65 Start: 52057, Stop: 51236, Start Num: 49

Candidate Starts for Kurt_65:

(40, 52084), (Start: 49 @52057 has 24 MA's), (74, 51985), (116, 51763), (150, 51622), (153, 51613), (167, 51562), (175, 51526), (185, 51472), (190, 51454), (201, 51439), (244, 51316),

Gene: Labelle_84 Start: 54626, Stop: 55684, Start Num: 55

Candidate Starts for Labelle_84:

(Start: 55 @54626 has 5 MA's), (75, 54683), (76, 54686), (79, 54716), (92, 54773), (96, 54788), (120, 54917), (131, 54941), (142, 54995), (146, 55019), (179, 55163), (180, 55169), (182, 55175), (184, 55184), (185, 55187), (190, 55205), (202, 55232), (222, 55292), (234, 55340), (249, 55388), (253, 55406), (262, 55466), (264, 55487), (272, 55595), (273, 55610),

Gene: Lakshmi_44 Start: 29420, Stop: 30472, Start Num: 26

Candidate Starts for Lakshmi_44:

(Start: 26 @29420 has 67 MA's), (69, 29546), (89, 29681), (130, 29888), (138, 29927), (139, 29942), (145, 29978), (146, 29981), (148, 29990), (162, 30041), (171, 30065), (210, 30206), (218, 30233), (228, 30269), (232, 30281), (263, 30431),

Gene: Lambo_65 Start: 44896, Stop: 45987, Start Num: 54

Candidate Starts for Lambo_65:

(Start: 54 @44896 has 37 MA's), (88, 45028), (99, 45076), (119, 45169), (120, 45178), (124, 45187), (157, 45310), (161, 45331), (170, 45358), (185, 45439), (190, 45457), (200, 45478), (226, 45556), (249, 45640), (268, 45805), (269, 45814), (280, 45958),

Gene: Lasagna_40 Start: 27444, Stop: 28496, Start Num: 26

Candidate Starts for Lasagna_40:

(Start: 26 @27444 has 67 MA's), (46, 27516), (89, 27705), (126, 27903), (130, 27912), (146, 28005), (148, 28014), (171, 28089), (218, 28257), (221, 28266), (228, 28293), (232, 28305),

Gene: LazerLemon_54 Start: 37996, Stop: 39006, Start Num: 30

Candidate Starts for LazerLemon_54:

(Start: 30 @37996 has 14 MA's), (51, 38077), (73, 38137), (81, 38194), (83, 38221), (103, 38323), (118, 38410), (134, 38464), (146, 38554), (149, 38566), (162, 38614), (185, 38722), (187, 38728),

(211, 38818), (219, 38842), (225, 38857), (232, 38884), (238, 38908), (245, 38926), (248, 38935),

Gene: Lennox_41 Start: 27652, Stop: 28704, Start Num: 26

Candidate Starts for Lennox_41:

(Start: 26 @27652 has 67 MA's), (46, 27724), (89, 27913), (126, 28111), (130, 28120), (146, 28213), (148, 28222), (161, 28270), (171, 28297), (218, 28465), (221, 28474), (224, 28483), (228, 28501), (232, 28513),

Gene: Leopard_75 Start: 52296, Stop: 53216, Start Num: 53

Candidate Starts for Leopard_75:

(Start: 53 @52296 has 2 MA's), (Start: 65 @52311 has 3 MA's), (78, 52383), (79, 52395), (83, 52419), (84, 52422), (92, 52452), (103, 52515), (118, 52572), (120, 52590), (124, 52599), (128, 52605), (136, 52635), (174, 52794), (176, 52803), (177, 52806), (185, 52851), (190, 52869), (213, 52917), (230, 52965), (241, 53004), (260, 53109),

Gene: LilStuart_41 Start: 27793, Stop: 28845, Start Num: 26

Candidate Starts for LilStuart_41:

(Start: 26 @27793 has 67 MA's), (46, 27865), (89, 28054), (126, 28252), (130, 28261), (146, 28354), (148, 28363), (171, 28438), (218, 28606), (221, 28615), (228, 28642), (232, 28654),

Gene: Lila22_68 Start: 45848, Stop: 46939, Start Num: 54

Candidate Starts for Lila22_68:

(Start: 54 @45848 has 37 MA's), (88, 45980), (99, 46028), (119, 46121), (120, 46130), (124, 46139), (157, 46262), (161, 46283), (170, 46310), (185, 46391), (190, 46409), (200, 46430), (226, 46508), (249, 46592), (268, 46757), (269, 46766), (280, 46910),

Gene: LilyPad_58 Start: 43001, Stop: 43912, Start Num: 52

Candidate Starts for LilyPad_58:

(Start: 52 @43001 has 9 MA's), (75, 43058), (76, 43061), (79, 43091), (112, 43241), (114, 43250), (120, 43295), (128, 43310), (132, 43322), (135, 43334), (143, 43373), (145, 43388), (150, 43406), (155, 43421), (179, 43532), (180, 43538), (185, 43556), (193, 43580), (196, 43586), (207, 43616), (235, 43709), (242, 43733), (267, 43883),

Gene: Litotes_43 Start: 28845, Stop: 29894, Start Num: 26

Candidate Starts for Litotes_43:

(Start: 17 @28788 has 4 MA's), (Start: 26 @28845 has 67 MA's), (70, 28986), (89, 29109), (99, 29157), (120, 29292), (126, 29307), (130, 29316), (138, 29355), (139, 29370), (146, 29409), (148, 29418), (171, 29493), (218, 29661), (224, 29679), (232, 29709),

Gene: LittleFella_63 Start: 44521, Stop: 45468, Start Num: 52

Candidate Starts for LittleFella_63:

(Start: 52 @44521 has 9 MA's), (Start: 56 @44527 has 4 MA's), (83, 44644), (120, 44824), (128, 44839), (132, 44851), (166, 44992), (174, 45028), (185, 45085),

Gene: Lizz_64 Start: 46003, Stop: 45221, Start Num: 60

Candidate Starts for Lizz_64:

(Start: 60 @46003 has 8 MA's), (74, 45949), (77, 45940), (79, 45913), (83, 45889), (96, 45841), (118, 45736), (143, 45637), (144, 45631), (154, 45592), (159, 45571), (177, 45499), (185, 45454), (187, 45448), (200, 45430), (223, 45394), (240, 45331),

Gene: Lollipop1437_69 Start: 52704, Stop: 51925, Start Num: 41

Candidate Starts for Lollipop1437_69:

(Start: 41 @52704 has 10 MA's), (74, 52620), (150, 52272), (167, 52212), (175, 52176), (185, 52122), (190, 52104), (212, 52071), (216, 52062), (241, 51987), (244, 51975),

Gene: LuckyLeo_64 Start: 44646, Stop: 45731, Start Num: 54

Candidate Starts for LuckyLeo_64:

(Start: 54 @44646 has 37 MA's), (79, 44739), (88, 44778), (99, 44826), (120, 44928), (124, 44937), (157, 45060), (161, 45081), (166, 45096), (170, 45108), (185, 45189), (190, 45207), (200, 45228), (205, 45249), (226, 45306), (249, 45390), (277, 45690),

Gene: Lucy_41 Start: 27790, Stop: 28842, Start Num: 26

Candidate Starts for Lucy_41:

(Start: 26 @27790 has 67 MA's), (46, 27862), (89, 28051), (126, 28249), (130, 28258), (146, 28351), (148, 28360), (161, 28408), (171, 28435), (218, 28603), (221, 28612), (224, 28621), (228, 28639), (232, 28651),

Gene: MacGully_73 Start: 51597, Stop: 50779, Start Num: 58

Candidate Starts for MacGully_73:

(24, 51750), (35, 51672), (Start: 58 @51597 has 16 MA's), (61, 51591), (74, 51537), (98, 51411), (120, 51294), (132, 51267), (135, 51255), (142, 51216), (148, 51183), (164, 51126), (192, 51003), (218, 50958), (256, 50805),

Gene: Madi_56 Start: 41882, Stop: 42811, Start Num: 52

Candidate Starts for Madi_56:

(Start: 52 @41882 has 9 MA's), (75, 41939), (79, 41972), (112, 42122), (114, 42131), (117, 42155), (120, 42176), (128, 42191), (132, 42203), (135, 42215), (143, 42254), (145, 42269), (155, 42302), (179, 42413), (180, 42419), (185, 42437), (193, 42461), (196, 42467), (207, 42497), (213, 42521), (242, 42614), (267, 42782),

Gene: Madruga_83 Start: 54580, Stop: 55638, Start Num: 55

Candidate Starts for Madruga_83:

(Start: 55 @54580 has 5 MA's), (75, 54637), (76, 54640), (79, 54670), (92, 54727), (96, 54742), (120, 54871), (131, 54895), (142, 54949), (146, 54973), (179, 55117), (180, 55123), (182, 55129), (184, 55138), (185, 55141), (190, 55159), (202, 55186), (222, 55246), (234, 55294), (249, 55342), (253, 55360), (262, 55420), (264, 55441), (272, 55549), (273, 55564),

Gene: Makoto_41 Start: 27663, Stop: 28715, Start Num: 26

Candidate Starts for Makoto_41:

(Start: 26 @27663 has 67 MA's), (46, 27735), (89, 27924), (126, 28122), (130, 28131), (146, 28224), (148, 28233), (161, 28281), (171, 28308), (218, 28476), (221, 28485), (224, 28494), (228, 28512), (232, 28524),

Gene: MamaPearl_42 Start: 28824, Stop: 29876, Start Num: 26

Candidate Starts for MamaPearl_42:

(Start: 26 @28824 has 67 MA's), (46, 28896), (126, 29283), (130, 29292), (146, 29385), (148, 29394), (161, 29442), (171, 29469), (187, 29550), (218, 29637), (221, 29646), (228, 29673),

Gene: Maria1952_40 Start: 28814, Stop: 29890, Start Num: 21

Candidate Starts for Maria1952_40:

(Start: 21 @28814 has 6 MA's), (Start: 26 @28847 has 67 MA's), (46, 28928), (82, 29066), (89, 29114), (99, 29162), (120, 29297), (130, 29321), (146, 29414), (148, 29423), (162, 29474), (171, 29498), (187, 29579), (218, 29666), (221, 29675), (228, 29702), (247, 29768),

Gene: Marietta_66 Start: 48435, Stop: 47638, Start Num: 49

Candidate Starts for Marietta_66:

(Start: 49 @48435 has 24 MA's), (74, 48360), (107, 48186), (142, 48054), (147, 48024), (150, 48015), (153, 48006), (159, 47979), (167, 47952), (177, 47907), (182, 47874), (185, 47862), (190, 47844), (228, 47763), (252, 47685),

Gene: Marky_57 Start: 38456, Stop: 39469, Start Num: 30

Candidate Starts for Marky_57:

(Start: 30 @38456 has 14 MA's), (Start: 62 @38558 has 54 MA's), (81, 38660), (83, 38687), (85, 38693), (103, 38789), (116, 38870), (118, 38876), (134, 38930), (142, 38996), (146, 39020), (149, 39032), (162, 39080), (185, 39188), (187, 39194), (198, 39236), (211, 39284), (225, 39323), (232, 39350), (237, 39371), (238, 39374), (245, 39392), (248, 39401),

Gene: Maselop_64 Start: 48423, Stop: 47572, Start Num: 58

Candidate Starts for Maselop_64:

(Start: 58 @48423 has 16 MA's), (74, 48363), (98, 48243), (101, 48231), (120, 48129), (123, 48120), (132, 48102), (135, 48090), (148, 48018), (185, 47862), (190, 47844), (192, 47838), (239, 47715), (250, 47679), (254, 47658),

Gene: MeganNoll_43 Start: 29025, Stop: 30083, Start Num: 22

Candidate Starts for MeganNoll_43:

(Start: 22 @29025 has 4 MA's), (Start: 26 @29040 has 67 MA's), (46, 29112), (89, 29301), (126, 29499), (130, 29508), (138, 29547), (146, 29601), (148, 29610), (161, 29658), (171, 29685), (218, 29853), (221, 29862), (228, 29889), (247, 29955),

Gene: Megatron06_73 Start: 53142, Stop: 54218, Start Num: 58

Candidate Starts for Megatron06_73:

(Start: 58 @53142 has 16 MA's), (63, 53148), (67, 53160), (74, 53196), (96, 53304), (103, 53352), (111, 53382), (120, 53439), (124, 53448), (128, 53454), (152, 53556), (160, 53589), (165, 53604), (174, 53643), (180, 53682), (185, 53700), (190, 53718), (191, 53721), (196, 53730), (222, 53796), (228, 53820), (268, 54009), (278, 54156), (279, 54159), (281, 54198), (282, 54207),

Gene: MerCougar_67 Start: 52388, Stop: 51525, Start Num: 49

Candidate Starts for MerCougar_67:

(Start: 49 @52388 has 24 MA's), (116, 52100), (132, 52049), (150, 51959), (161, 51917), (167, 51899), (175, 51863), (179, 51833), (185, 51809), (190, 51791),

Gene: Microdon_52 Start: 37262, Stop: 38275, Start Num: 30

Candidate Starts for Microdon_52:

(Start: 30 @37262 has 14 MA's), (50, 37343), (Start: 62 @37361 has 54 MA's), (81, 37463), (83, 37490), (104, 37595), (118, 37679), (121, 37700), (134, 37733), (142, 37799), (146, 37823), (153, 37847), (178, 37955), (182, 37979), (185, 37991), (187, 37997), (211, 38087), (221, 38114), (232, 38153), (238, 38177), (245, 38195),

Gene: Milani_46 Start: 29258, Stop: 30367, Start Num: 25

Candidate Starts for Milani_46:

(Start: 25 @29258 has 14 MA's), (33, 29327), (38, 29360), (96, 29585), (99, 29603), (113, 29681), (130, 29756), (148, 29864), (155, 29885), (159, 29903), (162, 29915), (175, 29960), (185, 30014), (187, 30020), (188, 30023), (224, 30128), (226, 30134), (231, 30155), (232, 30158),

Gene: Mima20_68 Start: 45405, Stop: 46475, Start Num: 54

Candidate Starts for Mima20_68:

(Start: 54 @45405 has 37 MA's), (88, 45537), (99, 45585), (117, 45666), (119, 45678), (120, 45687), (124, 45696), (157, 45819), (161, 45840), (170, 45867), (185, 45948), (190, 45966), (200, 45987),

(226, 46065), (249, 46149), (268, 46314), (280, 46446),

Gene: Misaeng_43 Start: 29393, Stop: 30448, Start Num: 26

Candidate Starts for Misaeng_43:

(Start: 26 @29393 has 67 MA's), (69, 29519), (89, 29654), (99, 29702), (125, 29849), (130, 29861), (139, 29915), (146, 29954), (148, 29963), (162, 30014), (171, 30038), (175, 30059), (210, 30179), (218, 30206), (224, 30224), (228, 30242), (232, 30254), (252, 30323),

Gene: MoiGyank_70 Start: 46170, Stop: 47240, Start Num: 54

Candidate Starts for MoiGyank_70:

(Start: 54 @46170 has 37 MA's), (88, 46302), (99, 46350), (117, 46431), (119, 46443), (120, 46452), (124, 46461), (157, 46584), (161, 46605), (170, 46632), (185, 46713), (190, 46731), (200, 46752), (226, 46830), (249, 46914), (259, 46992), (268, 47079), (280, 47211),

Gene: Moki_41 Start: 27765, Stop: 28814, Start Num: 26

Candidate Starts for Moki_41:

(Start: 26 @27765 has 67 MA's), (46, 27837), (89, 28026), (108, 28131), (126, 28224), (130, 28233), (138, 28272), (146, 28326), (148, 28335), (171, 28410), (218, 28578), (221, 28587), (228, 28614),

Gene: MontyDev_72 Start: 52628, Stop: 53458, Start Num: 48

Candidate Starts for MontyDev_72:

(Start: 48 @52628 has 9 MA's), (69, 52673), (75, 52703), (79, 52736), (83, 52760), (96, 52808), (100, 52829), (117, 52922), (127, 52952), (129, 52955), (134, 52967), (156, 53051), (163, 53081), (180, 53165), (182, 53171), (185, 53183), (190, 53201), (197, 53228), (199, 53231), (229, 53327), (234, 53348), (242, 53375),

Gene: Mopey_60 Start: 44493, Stop: 45353, Start Num: 62

Candidate Starts for Mopey_60:

(37, 44421), (Start: 62 @44493 has 54 MA's), (73, 44538), (76, 44550), (78, 44568), (79, 44580), (83, 44604), (84, 44607), (117, 44760), (120, 44781), (124, 44790), (128, 44796), (148, 44886), (149, 44889), (152, 44898), (158, 44919), (182, 45030), (185, 45042), (190, 45060), (213, 45111), (218, 45120), (228, 45150), (229, 45153),

Gene: MortySmith_43 Start: 29204, Stop: 30049, Start Num: 62

Candidate Starts for MortySmith_43:

(7, 28778), (11, 28808), (12, 28835), (13, 28904), (14, 28940), (Start: 62 @29204 has 54 MA's), (74, 29258), (79, 29294), (83, 29321), (94, 29366), (96, 29369), (102, 29414), (141, 29570), (148, 29606), (151, 29615), (152, 29618), (181, 29747), (185, 29762), (234, 29867), (247, 29909),

Gene: MrGloopy_44 Start: 28969, Stop: 30012, Start Num: 26

Candidate Starts for MrGloopy_44:

(Start: 26 @28969 has 67 MA's), (46, 29041), (Start: 65 @29074 has 3 MA's), (69, 29095), (89, 29230), (126, 29428), (130, 29437), (146, 29530), (148, 29539), (159, 29578), (162, 29590), (171, 29614), (206, 29746), (210, 29755), (218, 29782), (224, 29800), (228, 29818), (247, 29884),

Gene: MrMiyagi_77 Start: 49209, Stop: 50072, Start Num: 36

Candidate Starts for MrMiyagi_77:

(Start: 36 @49209 has 2 MA's), (84, 49395), (93, 49437), (95, 49440), (111, 49518), (115, 49548), (128, 49590), (135, 49614), (147, 49677), (150, 49686), (156, 49704), (160, 49725), (183, 49827), (185, 49836), (192, 49860), (204, 49893), (217, 49920), (227, 49950), (229, 49959), (235, 49983), (251, 50034),

Gene: NadineRae_65 Start: 48044, Stop: 47247, Start Num: 49

Candidate Starts for NadineRae_65:

(Start: 49 @48044 has 24 MA's), (74, 47969), (142, 47663), (147, 47633), (150, 47624), (153, 47615), (167, 47561), (177, 47516), (179, 47495), (182, 47483), (185, 47471), (190, 47453), (228, 47372), (252, 47294),

Gene: Nancia_41 Start: 27678, Stop: 28727, Start Num: 26

Candidate Starts for Nancia_41:

(Start: 26 @27678 has 67 MA's), (46, 27750), (89, 27939), (126, 28137), (130, 28146), (146, 28239), (148, 28248), (171, 28323), (218, 28491), (221, 28500), (228, 28527),

Gene: NarutoRun_45 Start: 30144, Stop: 30992, Start Num: 62

Candidate Starts for NarutoRun_45:

(7, 29718), (11, 29748), (14, 29880), (Start: 62 @30144 has 54 MA's), (74, 30198), (79, 30234), (83, 30261), (94, 30306), (96, 30309), (102, 30354), (141, 30510), (148, 30546), (151, 30555), (152, 30558), (181, 30687), (185, 30702), (234, 30807), (247, 30849),

Gene: NatB6_65 Start: 51126, Stop: 50305, Start Num: 49

Candidate Starts for NatB6_65:

(40, 51153), (Start: 49 @51126 has 24 MA's), (74, 51054), (116, 50832), (150, 50691), (153, 50682), (167, 50631), (175, 50595), (185, 50541), (190, 50523), (201, 50508), (244, 50385),

Gene: Neptune_45 Start: 30144, Stop: 30992, Start Num: 62

Candidate Starts for Neptune_45:

(7, 29718), (11, 29748), (14, 29880), (Start: 62 @30144 has 54 MA's), (74, 30198), (79, 30234), (83, 30261), (94, 30306), (96, 30309), (102, 30354), (141, 30510), (148, 30546), (151, 30555), (152, 30558), (181, 30687), (185, 30702), (234, 30807), (247, 30849),

Gene: Nilo_72 Start: 52985, Stop: 53815, Start Num: 48

Candidate Starts for Nilo_72:

(Start: 48 @52985 has 9 MA's), (69, 53030), (75, 53060), (79, 53093), (83, 53117), (96, 53165), (100, 53186), (117, 53279), (127, 53309), (129, 53312), (134, 53324), (156, 53408), (163, 53438), (180, 53522), (182, 53528), (185, 53540), (190, 53558), (197, 53585), (199, 53588), (229, 53684), (234, 53705), (242, 53732),

Gene: NorManre_71 Start: 46296, Stop: 47387, Start Num: 54

Candidate Starts for NorManre_71:

(Start: 54 @46296 has 37 MA's), (88, 46428), (99, 46476), (119, 46569), (120, 46578), (124, 46587), (157, 46710), (161, 46731), (170, 46758), (185, 46839), (190, 46857), (200, 46878), (226, 46956), (249, 47040), (268, 47205), (269, 47214), (280, 47358),

Gene: NosilaM_67 Start: 51702, Stop: 50839, Start Num: 49

Candidate Starts for NosilaM_67:

(Start: 49 @51702 has 24 MA's), (90, 51540), (116, 51414), (150, 51273), (159, 51240), (167, 51213), (169, 51207), (179, 51147), (185, 51123), (190, 51105), (220, 51051), (230, 51021), (242, 50976),

Gene: Nova_58 Start: 44945, Stop: 45805, Start Num: 62

Candidate Starts for Nova_58:

(37, 44873), (Start: 62 @44945 has 54 MA's), (73, 44990), (76, 45002), (78, 45020), (79, 45032), (83, 45056), (84, 45059), (117, 45212), (120, 45233), (124, 45242), (128, 45248), (148, 45338), (149, 45341), (152, 45350), (158, 45371), (182, 45482), (185, 45494), (190, 45512), (213, 45563), (218, 45572), (228, 45602), (229, 45605),

Gene: NovaSharks_69 Start: 44064, Stop: 45134, Start Num: 54

Candidate Starts for NovaSharks_69:

(Start: 54 @44064 has 37 MA's), (80, 44160), (88, 44196), (99, 44244), (119, 44337), (120, 44346), (124, 44355), (157, 44478), (161, 44499), (170, 44526), (185, 44607), (190, 44625), (200, 44646), (226, 44724), (249, 44808), (280, 45105),

Gene: NovumRegina_65 Start: 51435, Stop: 50614, Start Num: 49

Candidate Starts for NovumRegina_65:

(40, 51462), (Start: 49 @51435 has 24 MA's), (74, 51363), (116, 51141), (150, 51000), (153, 50991), (167, 50940), (175, 50904), (185, 50850), (190, 50832), (201, 50817), (244, 50694),

Gene: Nubia_44 Start: 29365, Stop: 30417, Start Num: 26

Candidate Starts for Nubia_44:

(Start: 26 @29365 has 67 MA's), (69, 29491), (89, 29626), (130, 29833), (138, 29872), (139, 29887), (145, 29923), (146, 29926), (148, 29935), (162, 29986), (171, 30010), (187, 30091), (210, 30151), (218, 30178), (228, 30214), (232, 30226), (263, 30376),

Gene: OMalley_41 Start: 28837, Stop: 29880, Start Num: 26

Candidate Starts for OMalley_41:

(Start: 26 @28837 has 67 MA's), (89, 29104), (130, 29311), (138, 29350), (145, 29401), (146, 29404), (148, 29413), (162, 29464), (171, 29488), (187, 29569), (228, 29692), (247, 29758),

Gene: Oaker_72 Start: 53171, Stop: 54247, Start Num: 58

Candidate Starts for Oaker_72:

(Start: 58 @53171 has 16 MA's), (63, 53177), (74, 53225), (96, 53333), (103, 53381), (111, 53411), (120, 53468), (124, 53477), (128, 53483), (152, 53585), (160, 53618), (165, 53633), (174, 53672), (180, 53711), (185, 53729), (190, 53747), (191, 53750), (196, 53759), (222, 53825), (228, 53849), (268, 54038), (278, 54185), (279, 54188), (281, 54227), (282, 54236),

Gene: Onyinye_76 Start: 52178, Stop: 53083, Start Num: 65

Candidate Starts for Onyinye_76:

(Start: 53 @52163 has 2 MA's), (Start: 65 @52178 has 3 MA's), (78, 52250), (79, 52262), (83, 52286), (84, 52289), (92, 52319), (103, 52382), (118, 52439), (120, 52457), (124, 52466), (128, 52472), (136, 52502), (174, 52661), (176, 52670), (177, 52673), (185, 52718), (190, 52736), (213, 52784), (230, 52832), (241, 52871), (260, 52976), (266, 53024),

Gene: OtterstedtS21_67 Start: 45230, Stop: 46321, Start Num: 54

Candidate Starts for OtterstedtS21_67:

(Start: 54 @45230 has 37 MA's), (88, 45362), (99, 45410), (117, 45491), (119, 45503), (120, 45512), (124, 45521), (157, 45644), (161, 45665), (170, 45692), (185, 45773), (190, 45791), (200, 45812), (226, 45890), (249, 45974), (268, 46139), (269, 46148), (280, 46292),

Gene: OurGirlNessie_40 Start: 27407, Stop: 28459, Start Num: 26

Candidate Starts for OurGirlNessie_40:

(Start: 26 @27407 has 67 MA's), (46, 27479), (89, 27668), (126, 27866), (130, 27875), (146, 27968), (148, 27977), (161, 28025), (171, 28052), (218, 28220), (221, 28229), (224, 28238), (228, 28256), (232, 28268),

Gene: Outis_66 Start: 51894, Stop: 51040, Start Num: 55

Candidate Starts for Outis_66:

(Start: 55 @51894 has 5 MA's), (116, 51615), (132, 51564), (150, 51474), (161, 51432), (167, 51414), (175, 51378), (179, 51348), (185, 51324), (190, 51306),

Gene: OverHedge_45 Start: 30134, Stop: 30982, Start Num: 62

Candidate Starts for OverHedge_45:

(7, 29708), (11, 29738), (14, 29870), (Start: 62 @30134 has 54 MA's), (74, 30188), (79, 30224), (83, 30251), (94, 30296), (96, 30299), (102, 30344), (141, 30500), (148, 30536), (151, 30545), (152, 30548), (181, 30677), (185, 30692), (234, 30797), (247, 30839),

Gene: Oxynfrius_44 Start: 29386, Stop: 30438, Start Num: 26

Candidate Starts for Oxynfrius_44:

(Start: 26 @29386 has 67 MA's), (69, 29512), (89, 29647), (130, 29854), (138, 29893), (139, 29908), (145, 29944), (146, 29947), (148, 29956), (158, 29989), (162, 30007), (171, 30031), (210, 30172), (218, 30199), (228, 30235), (232, 30247), (263, 30397),

Gene: P1201_70 Start: 52915, Stop: 52136, Start Num: 57

Candidate Starts for P1201_70:

(57, 52915), (74, 52858), (75, 52855), (105, 52684), (120, 52621), (165, 52456), (177, 52405), (185, 52360), (187, 52354), (192, 52336),

Gene: PBI1_56 Start: 44420, Stop: 45280, Start Num: 62

Candidate Starts for PBI1_56:

(37, 44348), (Start: 62 @44420 has 54 MA's), (73, 44465), (76, 44477), (78, 44495), (79, 44507), (83, 44531), (84, 44534), (117, 44687), (120, 44708), (124, 44717), (128, 44723), (148, 44813), (149, 44816), (152, 44825), (158, 44846), (182, 44957), (185, 44969), (190, 44987), (213, 45038), (218, 45047), (228, 45077), (229, 45080),

Gene: PHTowN_64 Start: 46001, Stop: 45219, Start Num: 60

Candidate Starts for PHTowN_64:

(Start: 60 @46001 has 8 MA's), (74, 45947), (77, 45938), (79, 45911), (83, 45887), (96, 45839), (118, 45734), (143, 45635), (144, 45629), (154, 45590), (159, 45569), (177, 45497), (185, 45452), (187, 45446), (200, 45428), (223, 45392), (240, 45329),

Gene: PLOT_59 Start: 44472, Stop: 45332, Start Num: 62

Candidate Starts for PLOT_59:

(37, 44400), (Start: 62 @44472 has 54 MA's), (73, 44517), (76, 44529), (78, 44547), (79, 44559), (83, 44583), (84, 44586), (117, 44739), (120, 44760), (124, 44769), (128, 44775), (148, 44865), (149, 44868), (152, 44877), (158, 44898), (182, 45009), (185, 45021), (190, 45039), (213, 45090), (218, 45099), (228, 45129), (229, 45132),

Gene: Papyrus_70 Start: 52595, Stop: 53425, Start Num: 48

Candidate Starts for Papyrus_70:

(Start: 48 @52595 has 9 MA's), (69, 52640), (75, 52670), (79, 52703), (83, 52727), (96, 52775), (100, 52796), (117, 52889), (127, 52919), (129, 52922), (134, 52934), (156, 53018), (163, 53048), (180, 53132), (182, 53138), (185, 53150), (190, 53168), (197, 53195), (199, 53198), (229, 53294), (234, 53315), (242, 53342),

Gene: PartyCup_46 Start: 29014, Stop: 30120, Start Num: 17

Candidate Starts for PartyCup_46:

(Start: 17 @29014 has 4 MA's), (Start: 26 @29071 has 67 MA's), (70, 29212), (89, 29335), (99, 29383), (120, 29518), (126, 29533), (130, 29542), (138, 29581), (139, 29596), (146, 29635), (148, 29644), (153, 29659), (171, 29719), (187, 29800), (218, 29887), (224, 29905), (232, 29935),

Gene: ParvusTarda_66 Start: 44602, Stop: 45693, Start Num: 54

Candidate Starts for ParvusTarda_66:

(Start: 54 @44602 has 37 MA's), (88, 44734), (99, 44782), (119, 44875), (120, 44884), (124, 44893), (157, 45016), (161, 45037), (170, 45064), (185, 45145), (190, 45163), (200, 45184), (226, 45262),

(249, 45346), (268, 45511), (269, 45520), (280, 45664),

Gene: Patience_85 Start: 55493, Stop: 56551, Start Num: 55

Candidate Starts for Patience_85:

(Start: 55 @55493 has 5 MA's), (75, 55550), (76, 55553), (79, 55583), (92, 55640), (96, 55655), (120, 55784), (131, 55808), (142, 55862), (146, 55886), (179, 56030), (180, 56036), (182, 56042), (184, 56051), (185, 56054), (190, 56072), (202, 56099), (222, 56159), (234, 56207), (249, 56255), (253, 56273), (262, 56333), (264, 56354), (272, 56462), (273, 56477),

Gene: Patio_67 Start: 51761, Stop: 50982, Start Num: 41

Candidate Starts for Patio_67:

(Start: 41 @51761 has 10 MA's), (74, 51677), (150, 51329), (167, 51269), (175, 51233), (185, 51179), (190, 51161), (212, 51128), (216, 51119), (241, 51044), (244, 51032),

Gene: Patos_71 Start: 46295, Stop: 47386, Start Num: 54

Candidate Starts for Patos_71:

(Start: 54 @46295 has 37 MA's), (88, 46427), (99, 46475), (119, 46568), (120, 46577), (124, 46586), (157, 46709), (161, 46730), (170, 46757), (185, 46838), (190, 46856), (200, 46877), (226, 46955), (249, 47039), (268, 47204), (269, 47213), (280, 47357),

Gene: Penelope2018_59 Start: 44490, Stop: 45350, Start Num: 62

Candidate Starts for Penelope2018_59:

(37, 44418), (Start: 62 @44490 has 54 MA's), (73, 44535), (76, 44547), (78, 44565), (79, 44577), (83, 44601), (84, 44604), (117, 44757), (120, 44778), (124, 44787), (128, 44793), (148, 44883), (149, 44886), (152, 44895), (158, 44916), (182, 45027), (185, 45039), (190, 45057), (213, 45108), (218, 45117), (228, 45147), (229, 45150),

Gene: PermaG_48 Start: 30045, Stop: 31100, Start Num: 25

Candidate Starts for PermaG_48:

(Start: 25 @30045 has 14 MA's), (38, 30114), (96, 30327), (99, 30345), (109, 30408), (113, 30423), (130, 30498), (148, 30606), (155, 30627), (175, 30702), (179, 30732), (185, 30756), (187, 30762), (188, 30765), (224, 30870), (243, 30942),

Gene: PeteyPab_53 Start: 45339, Stop: 44575, Start Num: 54

Candidate Starts for PeteyPab_53:

(Start: 54 @45339 has 37 MA's), (102, 45120), (120, 45045), (175, 44838), (185, 44784), (209, 44739), (234, 44655),

Gene: Pharpay_45 Start: 30189, Stop: 31037, Start Num: 62

Candidate Starts for Pharpay_45:

(7, 29763), (11, 29793), (14, 29925), (Start: 62 @30189 has 54 MA's), (74, 30243), (79, 30279), (83, 30306), (94, 30351), (96, 30354), (102, 30399), (141, 30555), (148, 30591), (151, 30600), (152, 30603), (181, 30732), (185, 30747), (234, 30852), (247, 30894),

Gene: Phomeo_64 Start: 51694, Stop: 50873, Start Num: 49

Candidate Starts for Phomeo_64:

(Start: 49 @51694 has 24 MA's), (74, 51622), (116, 51400), (150, 51259), (153, 51250), (167, 51199), (175, 51163), (185, 51109), (190, 51091), (201, 51076), (244, 50953),

Gene: Phreeze_71 Start: 52138, Stop: 53217, Start Num: 58

Candidate Starts for Phreeze_71:

(Start: 58 @52138 has 16 MA's), (63, 52144), (74, 52192), (96, 52300), (103, 52348), (111, 52378), (120, 52435), (124, 52444), (128, 52450), (152, 52552), (160, 52585), (165, 52600), (174, 52639),

(180, 52678), (185, 52696), (190, 52714), (191, 52717), (196, 52726), (222, 52792), (228, 52816), (268, 53008), (278, 53155), (279, 53158), (281, 53197), (282, 53206),

Gene: PhunaPhoke_45 Start: 30162, Stop: 31010, Start Num: 62

Candidate Starts for PhunaPhoke_45:

(7, 29736), (11, 29766), (14, 29898), (Start: 62 @30162 has 54 MA's), (74, 30216), (79, 30252), (83, 30279), (94, 30324), (96, 30327), (102, 30372), (141, 30528), (148, 30564), (151, 30573), (152, 30576), (181, 30705), (185, 30720), (234, 30825), (247, 30867),

Gene: PinkFriday_41 Start: 27951, Stop: 29000, Start Num: 26

Candidate Starts for PinkFriday_41:

(Start: 21 @27918 has 6 MA's), (Start: 26 @27951 has 67 MA's), (82, 28176), (89, 28224), (99, 28272), (130, 28431), (146, 28524), (148, 28533), (162, 28584), (171, 28608), (183, 28674), (187, 28689), (218, 28776), (221, 28785), (224, 28794), (228, 28812), (247, 28878),

Gene: PitaDog_42 Start: 27803, Stop: 28855, Start Num: 26

Candidate Starts for PitaDog_42:

(Start: 26 @27803 has 67 MA's), (46, 27875), (89, 28064), (100, 28115), (126, 28262), (130, 28271), (146, 28364), (148, 28373), (161, 28421), (171, 28448), (218, 28616), (221, 28625), (224, 28634), (228, 28652), (232, 28664),

Gene: Pleakley_74 Start: 51254, Stop: 50463, Start Num: 41

Candidate Starts for Pleakley_74:

(Start: 41 @51254 has 10 MA's), (74, 51158), (120, 50924), (150, 50813), (153, 50804), (158, 50786), (160, 50774), (167, 50753), (185, 50663), (190, 50645), (201, 50630), (228, 50570),

Gene: Polyzuki_64 Start: 48412, Stop: 47561, Start Num: 58

Candidate Starts for Polyzuki_64:

(Start: 58 @48412 has 16 MA's), (74, 48352), (98, 48232), (101, 48220), (120, 48118), (123, 48109), (132, 48091), (135, 48079), (148, 48007), (185, 47851), (190, 47833), (192, 47827), (239, 47704), (250, 47668), (254, 47647),

Gene: PotatoChip_54 Start: 45341, Stop: 44577, Start Num: 54

Candidate Starts for PotatoChip_54:

(Start: 54 @45341 has 37 MA's), (102, 45122), (120, 45047), (175, 44840), (185, 44786), (209, 44741), (234, 44657),

Gene: Potatoes_43 Start: 28867, Stop: 29910, Start Num: 26

Candidate Starts for Potatoes_43:

(Start: 26 @28867 has 67 MA's), (46, 28939), (89, 29128), (120, 29311), (126, 29326), (130, 29335), (138, 29374), (146, 29428), (148, 29437), (161, 29485), (171, 29512), (218, 29680), (221, 29689), (224, 29698), (228, 29716), (247, 29782),

Gene: Potty_45 Start: 30167, Stop: 31015, Start Num: 62

Candidate Starts for Potty_45:

(7, 29741), (11, 29771), (14, 29903), (Start: 62 @30167 has 54 MA's), (74, 30221), (79, 30257), (83, 30284), (94, 30329), (96, 30332), (102, 30377), (141, 30533), (148, 30569), (151, 30578), (152, 30581), (181, 30710), (185, 30725), (234, 30830), (247, 30872),

Gene: Poultriss_44 Start: 30482, Stop: 31330, Start Num: 62

Candidate Starts for Poultriss_44:

(1, 29921), (6, 30017), (7, 30056), (11, 30086), (13, 30182), (14, 30218), (Start: 62 @30482 has 54 MA's), (74, 30536), (79, 30572), (83, 30599), (94, 30644), (96, 30647), (102, 30692), (141, 30848),

(148, 30884), (151, 30893), (152, 30896), (181, 31025), (185, 31040), (234, 31145), (247, 31187),

Gene: Prager_59 Start: 44509, Stop: 45369, Start Num: 62

Candidate Starts for Prager_59:

(37, 44437), (Start: 62 @44509 has 54 MA's), (73, 44554), (76, 44566), (78, 44584), (79, 44596), (83, 44620), (84, 44623), (117, 44776), (120, 44797), (124, 44806), (128, 44812), (148, 44902), (149, 44905), (152, 44914), (158, 44935), (182, 45046), (185, 45058), (190, 45076), (213, 45127), (218, 45136), (228, 45166), (229, 45169),

Gene: Preamble_42 Start: 27872, Stop: 28987, Start Num: 16

Candidate Starts for Preamble_42:

(Start: 16 @27872 has 2 MA's), (Start: 26 @27935 has 67 MA's), (46, 28007), (69, 28061), (89, 28196), (130, 28403), (146, 28496), (148, 28505), (159, 28544), (162, 28556), (171, 28580), (210, 28721), (218, 28748), (224, 28766), (228, 28784), (247, 28850),

Gene: Predator_71 Start: 51699, Stop: 52709, Start Num: 58

Candidate Starts for Predator_71:

(Start: 58 @51699 has 16 MA's), (63, 51705), (74, 51753), (76, 51759), (96, 51861), (103, 51909), (120, 51996), (124, 52005), (128, 52011), (134, 52032), (148, 52101), (152, 52113), (159, 52140), (160, 52146), (165, 52161), (174, 52200), (180, 52239), (185, 52257), (190, 52275), (191, 52278), (218, 52350), (222, 52362), (275, 52683),

Gene: Pterodactyl_41 Start: 27644, Stop: 28696, Start Num: 26

Candidate Starts for Pterodactyl_41:

(Start: 26 @27644 has 67 MA's), (46, 27716), (89, 27905), (126, 28103), (130, 28112), (146, 28205), (148, 28214), (161, 28262), (171, 28289), (218, 28457), (221, 28466), (224, 28475), (228, 28493), (232, 28505),

Gene: Puissant_73 Start: 52254, Stop: 53387, Start Num: 58

Candidate Starts for Puissant_73:

(Start: 58 @52254 has 16 MA's), (63, 52260), (74, 52308), (96, 52416), (103, 52464), (111, 52494), (120, 52551), (124, 52560), (128, 52566), (152, 52668), (160, 52701), (165, 52716), (174, 52755), (180, 52794), (185, 52812), (190, 52830), (191, 52833), (196, 52842), (222, 52908), (228, 52932), (274, 53289), (281, 53367),

Gene: Pumancara_41 Start: 27830, Stop: 28912, Start Num: 21

Candidate Starts for Pumancara_41:

(Start: 21 @27830 has 6 MA's), (Start: 26 @27863 has 67 MA's), (82, 28088), (89, 28136), (99, 28184), (130, 28343), (146, 28436), (148, 28445), (162, 28496), (171, 28520), (183, 28586), (187, 28601), (218, 28688), (221, 28697), (224, 28706), (228, 28724), (247, 28790),

Gene: RAP15_44 Start: 29025, Stop: 30083, Start Num: 22

Candidate Starts for RAP15_44:

(Start: 22 @29025 has 4 MA's), (Start: 26 @29040 has 67 MA's), (46, 29112), (89, 29301), (126, 29499), (130, 29508), (138, 29547), (146, 29601), (148, 29610), (161, 29658), (171, 29685), (218, 29853), (221, 29862), (228, 29889), (247, 29955),

Gene: Rachella_45 Start: 30170, Stop: 31018, Start Num: 62

Candidate Starts for Rachella_45:

(7, 29744), (11, 29774), (14, 29906), (Start: 62 @30170 has 54 MA's), (74, 30224), (79, 30260), (83, 30287), (94, 30332), (96, 30335), (102, 30380), (141, 30536), (148, 30572), (151, 30581), (152, 30584), (181, 30713), (185, 30728), (234, 30833), (247, 30875),

Gene: Ranch_67 Start: 44074, Stop: 45165, Start Num: 54

Candidate Starts for Ranch_67:

(Start: 54 @44074 has 37 MA's), (88, 44206), (99, 44254), (119, 44347), (120, 44356), (124, 44365), (157, 44488), (161, 44509), (170, 44536), (185, 44617), (190, 44635), (200, 44656), (226, 44734), (249, 44818), (268, 44983), (269, 44992), (280, 45136),

Gene: Rasovi_48 Start: 30379, Stop: 31446, Start Num: 25

Candidate Starts for Rasovi_48:

(23, 30373), (Start: 25 @30379 has 14 MA's), (Start: 27 @30388 has 1 MA's), (38, 30448), (99, 30688), (100, 30691), (109, 30751), (113, 30766), (116, 30793), (119, 30808), (130, 30841), (148, 30949), (153, 30964), (155, 30970), (162, 31000), (175, 31045), (185, 31099), (187, 31105), (188, 31108), (231, 31240), (232, 31243), (243, 31285),

Gene: RcigaStruga_43 Start: 29269, Stop: 30324, Start Num: 26

Candidate Starts for RcigaStruga_43:

(Start: 26 @29269 has 67 MA's), (69, 29395), (89, 29530), (99, 29578), (125, 29725), (130, 29737), (139, 29791), (146, 29830), (148, 29839), (162, 29890), (171, 29914), (175, 29935), (210, 30055), (218, 30082), (224, 30100), (228, 30118), (232, 30130), (252, 30199),

Gene: Rie18_45 Start: 29667, Stop: 30512, Start Num: 62

Candidate Starts for Rie18_45:

(9, 29262), (11, 29271), (Start: 62 @29667 has 54 MA's), (72, 29709), (74, 29721), (79, 29757), (83, 29784), (94, 29829), (96, 29832), (102, 29877), (141, 30033), (148, 30069), (151, 30078), (152, 30081), (181, 30210), (185, 30225), (234, 30330), (247, 30372),

Gene: RikSengupta_49 Start: 31227, Stop: 32069, Start Num: 56

Candidate Starts for RikSengupta_49:

(15, 30993), (Start: 56 @31227 has 4 MA's), (76, 31290), (92, 31374), (94, 31386), (96, 31389), (133, 31551), (141, 31587), (148, 31623), (166, 31686), (169, 31695), (181, 31764), (185, 31779), (247, 31926),

Gene: Riovina_41 Start: 28837, Stop: 29880, Start Num: 26

Candidate Starts for Riovina_41:

(Start: 26 @28837 has 67 MA's), (89, 29104), (130, 29311), (138, 29350), (145, 29401), (146, 29404), (148, 29413), (162, 29464), (171, 29488), (187, 29569), (228, 29692), (247, 29758),

Gene: Riparian_72 Start: 52432, Stop: 53262, Start Num: 48

Candidate Starts for Riparian_72:

(Start: 48 @52432 has 9 MA's), (69, 52477), (75, 52507), (79, 52540), (83, 52564), (96, 52612), (100, 52633), (117, 52726), (127, 52756), (129, 52759), (134, 52771), (156, 52855), (163, 52885), (180, 52969), (182, 52975), (185, 52987), (190, 53005), (197, 53032), (199, 53035), (229, 53131), (234, 53152), (242, 53179),

Gene: Riverdale_44 Start: 29005, Stop: 30048, Start Num: 26

Candidate Starts for Riverdale_44:

(Start: 26 @29005 has 67 MA's), (46, 29077), (89, 29266), (120, 29449), (126, 29464), (130, 29473), (138, 29512), (146, 29566), (148, 29575), (161, 29623), (171, 29650), (218, 29818), (221, 29827), (228, 29854), (247, 29920),

Gene: Rooney_64 Start: 46156, Stop: 45371, Start Num: 60

Candidate Starts for Rooney_64:

(Start: 60 @46156 has 8 MA's), (74, 46102), (77, 46093), (79, 46066), (83, 46042), (96, 45994), (118, 45889), (143, 45790), (144, 45784), (154, 45745), (159, 45724), (177, 45652), (185, 45607), (187,

45601), (200, 45583), (215, 45556), (240, 45484),

Gene: Rope_70 Start: 52588, Stop: 53418, Start Num: 48

Candidate Starts for Rope_70:

(Start: 48 @52588 has 9 MA's), (69, 52633), (75, 52663), (79, 52696), (83, 52720), (96, 52768), (100, 52789), (117, 52882), (127, 52912), (129, 52915), (134, 52927), (156, 53011), (163, 53041), (180, 53125), (182, 53131), (185, 53143), (190, 53161), (197, 53188), (199, 53191), (229, 53287), (234, 53308), (242, 53335),

Gene: Rozby_43 Start: 28797, Stop: 29840, Start Num: 26

Candidate Starts for Rozby_43:

(Start: 26 @28797 has 67 MA's), (46, 28869), (Start: 65 @28902 has 3 MA's), (69, 28923), (89, 29058), (120, 29241), (126, 29256), (130, 29265), (146, 29358), (148, 29367), (162, 29418), (171, 29442), (210, 29583), (218, 29610), (224, 29628), (228, 29646), (247, 29712),

Gene: Rumi_68 Start: 43761, Stop: 44831, Start Num: 54

Candidate Starts for Rumi_68:

(Start: 54 @43761 has 37 MA's), (80, 43857), (88, 43893), (99, 43941), (119, 44034), (120, 44043), (124, 44052), (157, 44175), (161, 44196), (170, 44223), (185, 44304), (190, 44322), (200, 44343), (226, 44421), (249, 44505), (280, 44802),

Gene: SBlackberry_46 Start: 29789, Stop: 30850, Start Num: 25

Candidate Starts for SBlackberry_46:

(Start: 25 @29789 has 14 MA's), (Start: 27 @29798 has 1 MA's), (38, 29858), (83, 30017), (99, 30092), (109, 30155), (113, 30170), (116, 30197), (130, 30245), (148, 30353), (155, 30374), (175, 30449), (185, 30503), (187, 30509), (188, 30512), (224, 30617), (243, 30689),

Gene: Sadboi_68 Start: 45890, Stop: 46960, Start Num: 54

Candidate Starts for Sadboi_68:

(Start: 54 @45890 has 37 MA's), (88, 46022), (99, 46070), (119, 46163), (120, 46172), (124, 46181), (157, 46304), (161, 46325), (170, 46352), (185, 46433), (190, 46451), (200, 46472), (226, 46550), (249, 46634), (268, 46799), (280, 46931),

Gene: Sampudon_67 Start: 46242, Stop: 47312, Start Num: 54

Candidate Starts for Sampudon_67:

(Start: 54 @46242 has 37 MA's), (88, 46374), (99, 46422), (117, 46503), (119, 46515), (120, 46524), (124, 46533), (157, 46656), (161, 46677), (170, 46704), (185, 46785), (190, 46803), (200, 46824), (226, 46902), (249, 46986), (259, 47064), (268, 47151), (280, 47283),

Gene: Sapo_30 Start: 29120, Stop: 28092, Start Num: 30

Candidate Starts for Sapo_30:

(Start: 30 @29120 has 14 MA's), (86, 28919), (89, 28901), (117, 28745), (120, 28724), (134, 28685), (146, 28625), (161, 28568), (165, 28556),

Gene: Savage2526_44 Start: 29034, Stop: 30077, Start Num: 26

Candidate Starts for Savage2526_44:

(Start: 26 @29034 has 67 MA's), (46, 29106), (Start: 65 @29139 has 3 MA's), (69, 29160), (89, 29295), (126, 29493), (130, 29502), (146, 29595), (148, 29604), (159, 29643), (162, 29655), (171, 29679), (206, 29811), (210, 29820), (218, 29847), (224, 29865), (228, 29883), (247, 29949),

Gene: Scuttle_43 Start: 28994, Stop: 30037, Start Num: 26

Candidate Starts for Scuttle_43:

(Start: 26 @28994 has 67 MA's), (46, 29066), (Start: 65 @29099 has 3 MA's), (69, 29120), (89, 29255), (126, 29453), (130, 29462), (146, 29555), (148, 29564), (162, 29615), (171, 29639), (210, 29780), (218, 29807), (224, 29825), (228, 29843), (247, 29909),

Gene: Send513_70 Start: 52966, Stop: 53796, Start Num: 48

Candidate Starts for Send513_70:

(Start: 48 @52966 has 9 MA's), (69, 53011), (75, 53041), (79, 53074), (83, 53098), (96, 53146), (100, 53167), (117, 53260), (127, 53290), (129, 53293), (156, 53389), (163, 53419), (180, 53503), (182, 53509), (185, 53521), (190, 53539), (197, 53566), (199, 53569), (229, 53665), (234, 53686), (242, 53713),

Gene: Sergei_41 Start: 28815, Stop: 29891, Start Num: 21

Candidate Starts for Sergei_41:

(Start: 21 @28815 has 6 MA's), (Start: 26 @28848 has 67 MA's), (46, 28929), (82, 29067), (89, 29115), (99, 29163), (120, 29298), (130, 29322), (146, 29415), (148, 29424), (162, 29475), (171, 29499), (187, 29580), (218, 29667), (221, 29676), (228, 29703), (247, 29769),

Gene: ShakeNBake_64 Start: 46028, Stop: 45246, Start Num: 60

Candidate Starts for ShakeNBake_64:

(Start: 60 @46028 has 8 MA's), (74, 45974), (77, 45965), (79, 45938), (83, 45914), (96, 45866), (118, 45761), (143, 45662), (144, 45656), (154, 45617), (159, 45596), (177, 45524), (185, 45479), (187, 45473), (200, 45455), (223, 45419), (240, 45356),

Gene: Sienna_56 Start: 41882, Stop: 42811, Start Num: 52

Candidate Starts for Sienna_56:

(Start: 52 @41882 has 9 MA's), (75, 41939), (79, 41972), (112, 42122), (114, 42131), (117, 42155), (120, 42176), (128, 42191), (132, 42203), (135, 42215), (143, 42254), (145, 42269), (155, 42302), (179, 42413), (180, 42419), (185, 42437), (193, 42461), (196, 42467), (207, 42497), (213, 42521), (242, 42614), (267, 42782),

Gene: SirHarley_61 Start: 44932, Stop: 45792, Start Num: 62

Candidate Starts for SirHarley_61:

(37, 44860), (Start: 62 @44932 has 54 MA's), (73, 44977), (76, 44989), (78, 45007), (79, 45019), (83, 45043), (84, 45046), (117, 45199), (120, 45220), (124, 45229), (128, 45235), (148, 45325), (149, 45328), (152, 45337), (158, 45358), (182, 45469), (185, 45481), (190, 45499), (213, 45550), (218, 45559), (228, 45589), (229, 45592),

Gene: Skysand_67 Start: 52239, Stop: 51460, Start Num: 41

Candidate Starts for Skysand_67:

(Start: 41 @52239 has 10 MA's), (74, 52155), (87, 52080), (150, 51807), (167, 51747), (175, 51711), (185, 51657), (190, 51639), (212, 51606), (216, 51597), (241, 51522), (244, 51510),

Gene: Snakehole_45 Start: 29347, Stop: 30192, Start Num: 62

Candidate Starts for Snakehole_45:

(7, 28921), (8, 28927), (11, 28951), (14, 29083), (Start: 62 @29347 has 54 MA's), (74, 29401), (79, 29437), (83, 29464), (94, 29509), (96, 29512), (102, 29557), (141, 29713), (148, 29749), (151, 29758), (152, 29761), (181, 29890), (185, 29905), (234, 30010), (247, 30052),

Gene: Sparcetus_49 Start: 31104, Stop: 31946, Start Num: 56

Candidate Starts for Sparcetus_49:

(Start: 56 @31104 has 4 MA's), (76, 31167), (92, 31251), (94, 31263), (96, 31266), (133, 31428), (141, 31464), (148, 31500), (166, 31563), (169, 31572), (181, 31641), (185, 31656), (247, 31803),

Gene: StarStruck_66 Start: 51894, Stop: 51040, Start Num: 55

Candidate Starts for StarStruck_66:

(Start: 55 @51894 has 5 MA's), (116, 51615), (132, 51564), (150, 51474), (161, 51432), (167, 51414), (175, 51378), (179, 51348), (185, 51324), (190, 51306),

Gene: Stickynote_54 Start: 45345, Stop: 44581, Start Num: 54

Candidate Starts for Stickynote_54:

(Start: 54 @45345 has 37 MA's), (102, 45126), (175, 44844), (185, 44790), (209, 44745), (234, 44661),

Gene: Stuff_53 Start: 37765, Stop: 38778, Start Num: 30

Candidate Starts for Stuff_53:

(Start: 30 @37765 has 14 MA's), (51, 37849), (Start: 62 @37864 has 54 MA's), (81, 37966), (83, 37993), (85, 37999), (104, 38098), (118, 38182), (121, 38203), (134, 38236), (142, 38302), (146, 38326), (153, 38350), (178, 38458), (182, 38482), (185, 38494), (187, 38500), (211, 38590), (232, 38656), (238, 38680), (245, 38698),

Gene: Sucha_46 Start: 28453, Stop: 29529, Start Num: 25

Candidate Starts for Sucha_46:

(Start: 25 @28453 has 14 MA's), (38, 28522), (74, 28621), (96, 28747), (99, 28765), (113, 28843), (130, 28918), (148, 29026), (155, 29047), (159, 29065), (162, 29077), (175, 29122), (185, 29176), (188, 29185), (226, 29296), (231, 29317), (232, 29320),

Gene: Sukkupi_66 Start: 50275, Stop: 49478, Start Num: 49

Candidate Starts for Sukkupi_66:

(28, 50374), (40, 50302), (Start: 49 @50275 has 24 MA's), (74, 50200), (107, 50026), (142, 49894), (147, 49864), (150, 49855), (153, 49846), (159, 49819), (167, 49792), (177, 49747), (182, 49714), (185, 49702), (190, 49684), (228, 49603), (252, 49525),

Gene: Supakev_41 Start: 28837, Stop: 29880, Start Num: 26

Candidate Starts for Supakev_41:

(Start: 26 @28837 has 67 MA's), (89, 29104), (130, 29311), (138, 29350), (145, 29401), (146, 29404), (148, 29413), (162, 29464), (171, 29488), (187, 29569), (228, 29692), (247, 29758),

Gene: SuperSulley_67 Start: 52253, Stop: 51390, Start Num: 49

Candidate Starts for SuperSulley_67:

(Start: 30 @52331 has 14 MA's), (Start: 49 @52253 has 24 MA's), (90, 52091), (116, 51965), (150, 51824), (159, 51791), (167, 51764), (169, 51758), (179, 51698), (185, 51674), (190, 51656), (220, 51602), (230, 51572), (242, 51527),

Gene: Suppi_43 Start: 28835, Stop: 29941, Start Num: 17

Candidate Starts for Suppi_43:

(Start: 17 @28835 has 4 MA's), (Start: 26 @28892 has 67 MA's), (70, 29033), (89, 29156), (99, 29204), (120, 29339), (126, 29354), (130, 29363), (139, 29417), (146, 29456), (148, 29465), (171, 29540), (218, 29708), (224, 29726), (232, 29756),

Gene: Suzy_56 Start: 43075, Stop: 44001, Start Num: 52

Candidate Starts for Suzy_56:

(Start: 52 @43075 has 9 MA's), (75, 43132), (79, 43165), (112, 43315), (114, 43324), (120, 43369), (128, 43384), (132, 43396), (135, 43408), (143, 43447), (145, 43462), (155, 43495), (179, 43606), (180, 43612), (185, 43630), (193, 43654), (196, 43660), (203, 43684), (207, 43690), (213, 43714), (235, 43783), (242, 43807), (267, 43972),

Gene: TattModd_42 Start: 28654, Stop: 29697, Start Num: 26

Candidate Starts for TattModd_42:

(Start: 26 @28654 has 67 MA's), (46, 28726), (Start: 65 @28759 has 3 MA's), (69, 28780), (89, 28915), (126, 29113), (130, 29122), (146, 29215), (148, 29224), (162, 29275), (171, 29299), (210, 29440), (218, 29467), (224, 29485), (228, 29503), (232, 29515), (247, 29569),

Gene: Tedro_45 Start: 29601, Stop: 30446, Start Num: 62

Candidate Starts for Tedro_45:

(7, 29175), (11, 29205), (13, 29301), (14, 29337), (Start: 62 @29601 has 54 MA's), (74, 29655), (79, 29691), (83, 29718), (94, 29763), (96, 29766), (102, 29811), (141, 29967), (148, 30003), (151, 30012), (152, 30015), (181, 30144), (185, 30159), (234, 30264), (247, 30306),

Gene: Temper16_41 Start: 28815, Stop: 29891, Start Num: 21

Candidate Starts for Temper16_41:

(Start: 21 @28815 has 6 MA's), (Start: 26 @28848 has 67 MA's), (46, 28929), (82, 29067), (89, 29115), (99, 29163), (120, 29298), (130, 29322), (146, 29415), (148, 29424), (162, 29475), (171, 29499), (187, 29580), (218, 29667), (221, 29676), (228, 29703), (247, 29769),

Gene: Terapin_57 Start: 41806, Stop: 42735, Start Num: 52

Candidate Starts for Terapin_57:

(Start: 52 @41806 has 9 MA's), (75, 41863), (79, 41896), (112, 42046), (114, 42055), (117, 42079), (120, 42100), (128, 42115), (132, 42127), (135, 42139), (143, 42178), (145, 42193), (155, 42226), (179, 42337), (180, 42343), (185, 42361), (193, 42385), (196, 42391), (207, 42421), (213, 42445), (242, 42538), (267, 42706),

Gene: Theresita_46 Start: 28078, Stop: 29154, Start Num: 20

Candidate Starts for Theresita_46:

(Start: 20 @28078 has 1 MA's), (100, 28396), (109, 28456), (113, 28471), (140, 28615), (148, 28654), (155, 28675), (156, 28678), (159, 28693), (160, 28699), (171, 28729), (175, 28750), (185, 28804), (187, 28810), (188, 28813), (210, 28873), (224, 28918), (246, 28999),

Gene: Thoth_59 Start: 44488, Stop: 45348, Start Num: 62

Candidate Starts for Thoth_59:

(37, 44416), (Start: 62 @44488 has 54 MA's), (73, 44533), (76, 44545), (78, 44563), (79, 44575), (83, 44599), (84, 44602), (117, 44755), (120, 44776), (124, 44785), (128, 44791), (148, 44881), (149, 44884), (152, 44893), (158, 44914), (182, 45025), (185, 45037), (190, 45055), (213, 45106), (218, 45115), (228, 45145), (229, 45148),

Gene: Thumb_73 Start: 52573, Stop: 53652, Start Num: 58

Candidate Starts for Thumb_73:

(Start: 58 @52573 has 16 MA's), (63, 52579), (74, 52627), (96, 52735), (103, 52783), (111, 52813), (120, 52870), (124, 52879), (128, 52885), (152, 52987), (160, 53020), (165, 53035), (174, 53074), (180, 53113), (185, 53131), (190, 53149), (191, 53152), (196, 53161), (222, 53227), (228, 53251), (268, 53443), (278, 53590), (279, 53593), (281, 53632), (282, 53641),

Gene: Tillicus_63 Start: 44587, Stop: 45672, Start Num: 54

Candidate Starts for Tillicus_63:

(Start: 54 @44587 has 37 MA's), (78, 44668), (79, 44680), (83, 44704), (88, 44719), (99, 44767), (119, 44860), (120, 44869), (124, 44878), (157, 45001), (161, 45022), (170, 45049), (185, 45130), (190, 45148), (200, 45169), (205, 45190), (226, 45247), (249, 45331),

Gene: TinyMiny_49 Start: 31125, Stop: 31967, Start Num: 56

Candidate Starts for TinyMiny_49:

(15, 30891), (Start: 56 @31125 has 4 MA's), (76, 31188), (92, 31272), (94, 31284), (96, 31287), (133, 31449), (141, 31485), (148, 31521), (166, 31584), (169, 31593), (181, 31662), (185, 31677), (247, 31824),

Gene: Tracker_65 Start: 50870, Stop: 50052, Start Num: 49

Candidate Starts for Tracker_65:

(40, 50897), (Start: 49 @50870 has 24 MA's), (74, 50798), (116, 50576), (150, 50435), (153, 50426), (167, 50375), (175, 50339), (185, 50285), (190, 50267), (201, 50252),

Gene: Troll4_59 Start: 44619, Stop: 45479, Start Num: 62

Candidate Starts for Troll4_59:

(37, 44547), (Start: 62 @44619 has 54 MA's), (73, 44664), (76, 44676), (78, 44694), (79, 44706), (83, 44730), (84, 44733), (117, 44886), (120, 44907), (124, 44916), (128, 44922), (148, 45012), (149, 45015), (152, 45024), (158, 45045), (182, 45156), (185, 45168), (190, 45186), (213, 45237), (218, 45246), (228, 45276), (229, 45279),

Gene: TurboVicky_47 Start: 30002, Stop: 31069, Start Num: 25

Candidate Starts for TurboVicky_47:

(Start: 25 @30002 has 14 MA's), (Start: 27 @30011 has 1 MA's), (38, 30071), (96, 30287), (100, 30308), (109, 30368), (113, 30383), (130, 30458), (148, 30566), (155, 30587), (160, 30611), (175, 30662), (185, 30716), (187, 30722), (188, 30725), (189, 30728), (224, 30830), (226, 30836), (243, 30902),

Gene: Turuncu_68 Start: 51816, Stop: 51037, Start Num: 41

Candidate Starts for Turuncu_68:

(Start: 41 @51816 has 10 MA's), (74, 51729), (147, 51390), (150, 51381), (159, 51348), (167, 51321), (175, 51291), (185, 51237), (187, 51231), (190, 51219), (192, 51213), (216, 51177), (230, 51141),

Gene: Typher_48 Start: 29589, Stop: 30656, Start Num: 25

Candidate Starts for Typher_48:

(Start: 25 @29589 has 14 MA's), (Start: 27 @29598 has 1 MA's), (38, 29658), (96, 29874), (100, 29895), (109, 29955), (113, 29970), (130, 30045), (148, 30153), (155, 30174), (160, 30198), (175, 30249), (185, 30303), (187, 30309), (188, 30312), (224, 30417), (226, 30423), (243, 30489),

Gene: UNTPL_55 Start: 37799, Stop: 38812, Start Num: 30

Candidate Starts for UNTPL_55:

(Start: 30 @37799 has 14 MA's), (34, 37823), (51, 37883), (Start: 62 @37898 has 54 MA's), (81, 38000), (83, 38027), (85, 38033), (104, 38132), (118, 38216), (121, 38237), (134, 38270), (142, 38336), (146, 38360), (153, 38384), (178, 38492), (182, 38516), (185, 38528), (187, 38534), (211, 38624), (232, 38690), (238, 38714), (245, 38732),

Gene: Urla_42 Start: 28818, Stop: 29870, Start Num: 26

Candidate Starts for Urla_42:

(Start: 26 @28818 has 67 MA's), (46, 28890), (Start: 65 @28923 has 3 MA's), (89, 29079), (126, 29277), (130, 29286), (146, 29379), (148, 29388), (161, 29436), (171, 29463), (187, 29544), (218, 29631), (221, 29640), (228, 29667), (247, 29733),

Gene: Vallejo_44 Start: 29008, Stop: 30051, Start Num: 26

Candidate Starts for Vallejo_44:

(Start: 26 @29008 has 67 MA's), (46, 29080), (89, 29269), (120, 29452), (126, 29467), (130, 29476), (138, 29515), (146, 29569), (148, 29578), (161, 29626), (171, 29653), (218, 29821), (221, 29830), (228, 29857), (247, 29923),

Gene: Visconti_60 Start: 44499, Stop: 45359, Start Num: 62

Candidate Starts for Visconti_60:

(37, 44427), (Start: 62 @44499 has 54 MA's), (73, 44544), (76, 44556), (78, 44574), (79, 44586), (83, 44610), (84, 44613), (117, 44766), (120, 44787), (124, 44796), (128, 44802), (148, 44892), (149, 44895), (152, 44904), (158, 44925), (182, 45036), (185, 45048), (190, 45066), (213, 45117), (218, 45126), (228, 45156), (229, 45159),

Gene: Vulture_41 Start: 28766, Stop: 29809, Start Num: 26

Candidate Starts for Vulture_41:

(Start: 26 @28766 has 67 MA's), (31, 28811), (66, 28886), (89, 29033), (99, 29081), (130, 29240), (146, 29333), (148, 29342), (162, 29393), (171, 29417), (187, 29498), (218, 29585), (221, 29594), (224, 29603), (228, 29621), (247, 29687),

Gene: WaldoWhy_61 Start: 44552, Stop: 45412, Start Num: 62

Candidate Starts for WaldoWhy_61:

(37, 44480), (Start: 62 @44552 has 54 MA's), (73, 44597), (76, 44609), (78, 44627), (79, 44639), (83, 44663), (84, 44666), (117, 44819), (120, 44840), (124, 44849), (128, 44855), (148, 44945), (149, 44948), (152, 44957), (158, 44978), (182, 45089), (185, 45101), (190, 45119), (213, 45170), (218, 45179), (228, 45209), (229, 45212),

Gene: Wawa_43 Start: 28841, Stop: 29884, Start Num: 26

Candidate Starts for Wawa_43:

(Start: 26 @28841 has 67 MA's), (46, 28913), (89, 29102), (126, 29300), (130, 29309), (138, 29348), (146, 29402), (148, 29411), (161, 29459), (171, 29486), (218, 29654), (221, 29663), (228, 29690), (247, 29756),

Gene: Wayne_43 Start: 28881, Stop: 29987, Start Num: 17

Candidate Starts for Wayne_43:

(Start: 17 @28881 has 4 MA's), (Start: 26 @28938 has 67 MA's), (70, 29079), (89, 29202), (99, 29250), (120, 29385), (126, 29400), (130, 29409), (139, 29463), (146, 29502), (148, 29511), (171, 29586), (218, 29754), (224, 29772), (232, 29802),

Gene: Weiss13_70 Start: 52669, Stop: 53499, Start Num: 48

Candidate Starts for Weiss13_70:

(Start: 48 @52669 has 9 MA's), (69, 52714), (75, 52744), (79, 52777), (83, 52801), (96, 52849), (100, 52870), (117, 52963), (127, 52993), (129, 52996), (134, 53008), (156, 53092), (163, 53122), (180, 53206), (182, 53212), (185, 53224), (190, 53242), (197, 53269), (199, 53272), (229, 53368), (234, 53389), (242, 53416),

Gene: Wentworth_64 Start: 46130, Stop: 45360, Start Num: 60

Candidate Starts for Wentworth_64:

(Start: 60 @46130 has 8 MA's), (71, 46088), (74, 46076), (75, 46073), (79, 46040), (96, 45968), (116, 45869), (143, 45764), (144, 45758), (154, 45719), (159, 45698), (173, 45641), (185, 45581), (187, 45575), (215, 45530), (223, 45521),

Gene: Wheezy_65 Start: 51084, Stop: 50263, Start Num: 49

Candidate Starts for Wheezy_65:

(40, 51111), (Start: 49 @51084 has 24 MA's), (74, 51012), (116, 50790), (150, 50649), (153, 50640), (167, 50589), (175, 50553), (185, 50499), (190, 50481), (201, 50466),

Gene: WhoseManz_65 Start: 48102, Stop: 47305, Start Num: 49

Candidate Starts for WhoseManz_65:

(Start: 49 @48102 has 24 MA's), (74, 48027), (142, 47721), (147, 47691), (150, 47682), (153, 47673), (159, 47646), (167, 47619), (177, 47574), (182, 47541), (185, 47529), (190, 47511), (228, 47430), (252, 47352),

Gene: Wilkos_66 Start: 46285, Stop: 45515, Start Num: 60

Candidate Starts for Wilkos_66:

(Start: 60 @46285 has 8 MA's), (69, 46258), (71, 46243), (74, 46231), (75, 46228), (79, 46195), (83, 46171), (84, 46168), (92, 46138), (116, 46024), (143, 45919), (144, 45913), (154, 45874), (159, 45853), (173, 45796), (185, 45736), (187, 45730), (223, 45676),

Gene: Wojtek_63 Start: 44323, Stop: 45414, Start Num: 54

Candidate Starts for Wojtek_63:

(Start: 54 @44323 has 37 MA's), (78, 44404), (79, 44416), (88, 44455), (99, 44503), (119, 44596), (120, 44605), (124, 44614), (157, 44737), (161, 44758), (170, 44785), (185, 44866), (190, 44884), (200, 44905), (226, 44983), (249, 45067), (259, 45145), (268, 45232),

Gene: Wollypog_48 Start: 34784, Stop: 35608, Start Num: 62

Candidate Starts for Wollypog_48:

(Start: 62 @34784 has 54 MA's), (73, 34832), (74, 34838), (75, 34841), (83, 34898), (126, 35081), (128, 35084), (147, 35174), (156, 35201), (160, 35222), (183, 35324), (185, 35333),

Gene: WonderBoy_40 Start: 27638, Stop: 28687, Start Num: 26

Candidate Starts for WonderBoy_40:

(Start: 26 @27638 has 67 MA's), (46, 27710), (Start: 65 @27743 has 3 MA's), (69, 27764), (89, 27899), (130, 28106), (138, 28145), (146, 28199), (148, 28208), (159, 28247), (162, 28259), (171, 28283), (210, 28424), (218, 28451), (224, 28469), (228, 28487), (247, 28553),

Gene: Xenia2_63 Start: 44090, Stop: 45202, Start Num: 54

Candidate Starts for Xenia2_63:

(Start: 54 @44090 has 37 MA's), (79, 44186), (88, 44225), (99, 44273), (117, 44354), (119, 44366), (120, 44375), (124, 44384), (161, 44528), (185, 44636), (190, 44654), (200, 44675), (207, 44699), (208, 44702), (226, 44753), (257, 44894), (280, 45170),

Gene: Yara_60 Start: 44990, Stop: 44223, Start Num: 60

Candidate Starts for Yara_60:

(Start: 60 @44990 has 8 MA's), (69, 44963), (74, 44936), (77, 44927), (79, 44900), (154, 44579), (155, 44576), (159, 44558), (167, 44531), (187, 44435), (247, 44297),

Gene: Yelo_69 Start: 53048, Stop: 53878, Start Num: 48

Candidate Starts for Yelo_69:

(Start: 48 @53048 has 9 MA's), (69, 53093), (75, 53123), (79, 53156), (83, 53180), (96, 53228), (100, 53249), (117, 53342), (127, 53372), (129, 53375), (134, 53387), (156, 53471), (163, 53501), (180, 53585), (182, 53591), (185, 53603), (190, 53621), (197, 53648), (199, 53651), (229, 53747), (234, 53768), (242, 53795),

Gene: Yikes_69 Start: 46336, Stop: 47406, Start Num: 54

Candidate Starts for Yikes_69:

(Start: 54 @46336 has 37 MA's), (88, 46468), (99, 46516), (119, 46609), (120, 46618), (124, 46627), (157, 46750), (161, 46771), (170, 46798), (185, 46879), (190, 46897), (200, 46918), (226, 46996), (249, 47080), (268, 47245), (280, 47377),

Gene: Yndexa_66 Start: 50275, Stop: 49478, Start Num: 49

Candidate Starts for Yndexa_66:

(28, 50374), (40, 50302), (Start: 49 @50275 has 24 MA's), (74, 50200), (107, 50026), (142, 49894), (147, 49864), (150, 49855), (153, 49846), (159, 49819), (167, 49792), (177, 49747), (182, 49714), (185, 49702), (190, 49684), (228, 49603), (252, 49525),

Gene: Zanella_46 Start: 29837, Stop: 30895, Start Num: 27

Candidate Starts for Zanella_46:

(Start: 25 @29828 has 14 MA's), (Start: 27 @29837 has 1 MA's), (38, 29897), (96, 30113), (100, 30134), (109, 30194), (113, 30209), (130, 30284), (148, 30392), (155, 30413), (160, 30437), (175, 30488), (185, 30542), (187, 30548), (188, 30551), (224, 30656), (226, 30662), (243, 30728),

Gene: Zany_65 Start: 45737, Stop: 46807, Start Num: 54

Candidate Starts for Zany_65:

(Start: 54 @45737 has 37 MA's), (88, 45869), (99, 45917), (119, 46010), (120, 46019), (124, 46028), (157, 46151), (161, 46172), (170, 46199), (185, 46280), (190, 46298), (200, 46319), (226, 46397), (249, 46481), (268, 46646), (280, 46778),

Gene: Zenon_72 Start: 52992, Stop: 53822, Start Num: 48

Candidate Starts for Zenon_72:

(Start: 48 @52992 has 9 MA's), (69, 53037), (75, 53067), (79, 53100), (83, 53124), (96, 53172), (100, 53193), (117, 53286), (127, 53316), (129, 53319), (156, 53415), (163, 53445), (180, 53529), (182, 53535), (185, 53547), (190, 53565), (197, 53592), (199, 53595), (229, 53691), (234, 53712), (242, 53739),

Gene: Zion_54 Start: 45339, Stop: 44575, Start Num: 54

Candidate Starts for Zion_54:

(Start: 54 @45339 has 37 MA's), (102, 45120), (120, 45045), (175, 44838), (185, 44784), (209, 44739), (234, 44655),

Gene: Zorro_44 Start: 28953, Stop: 30011, Start Num: 22

Candidate Starts for Zorro_44:

(Start: 22 @28953 has 4 MA's), (Start: 26 @28968 has 67 MA's), (46, 29040), (89, 29229), (126, 29427), (130, 29436), (138, 29475), (146, 29529), (148, 29538), (161, 29586), (171, 29613), (218, 29781), (221, 29790), (228, 29817), (247, 29883),