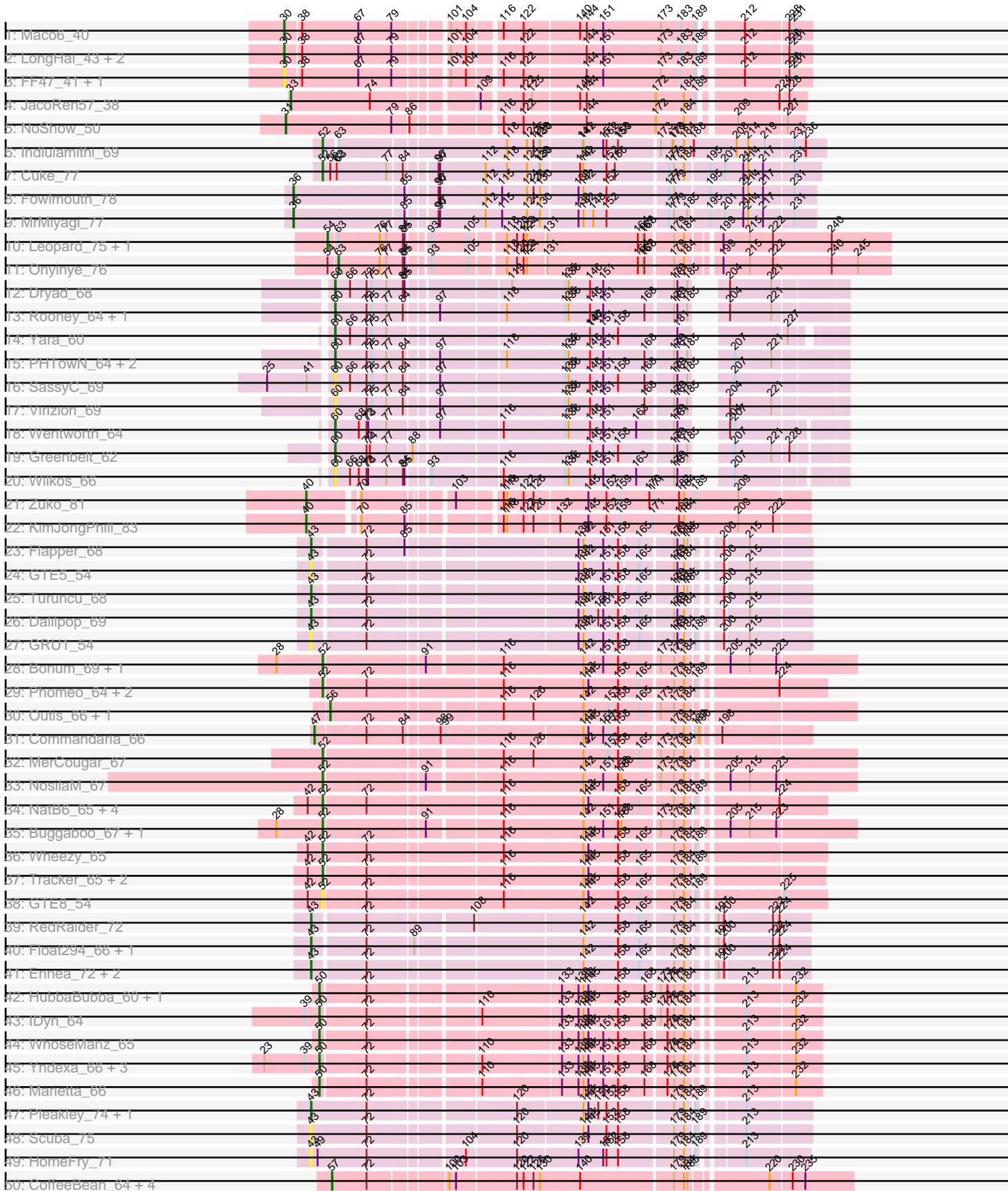
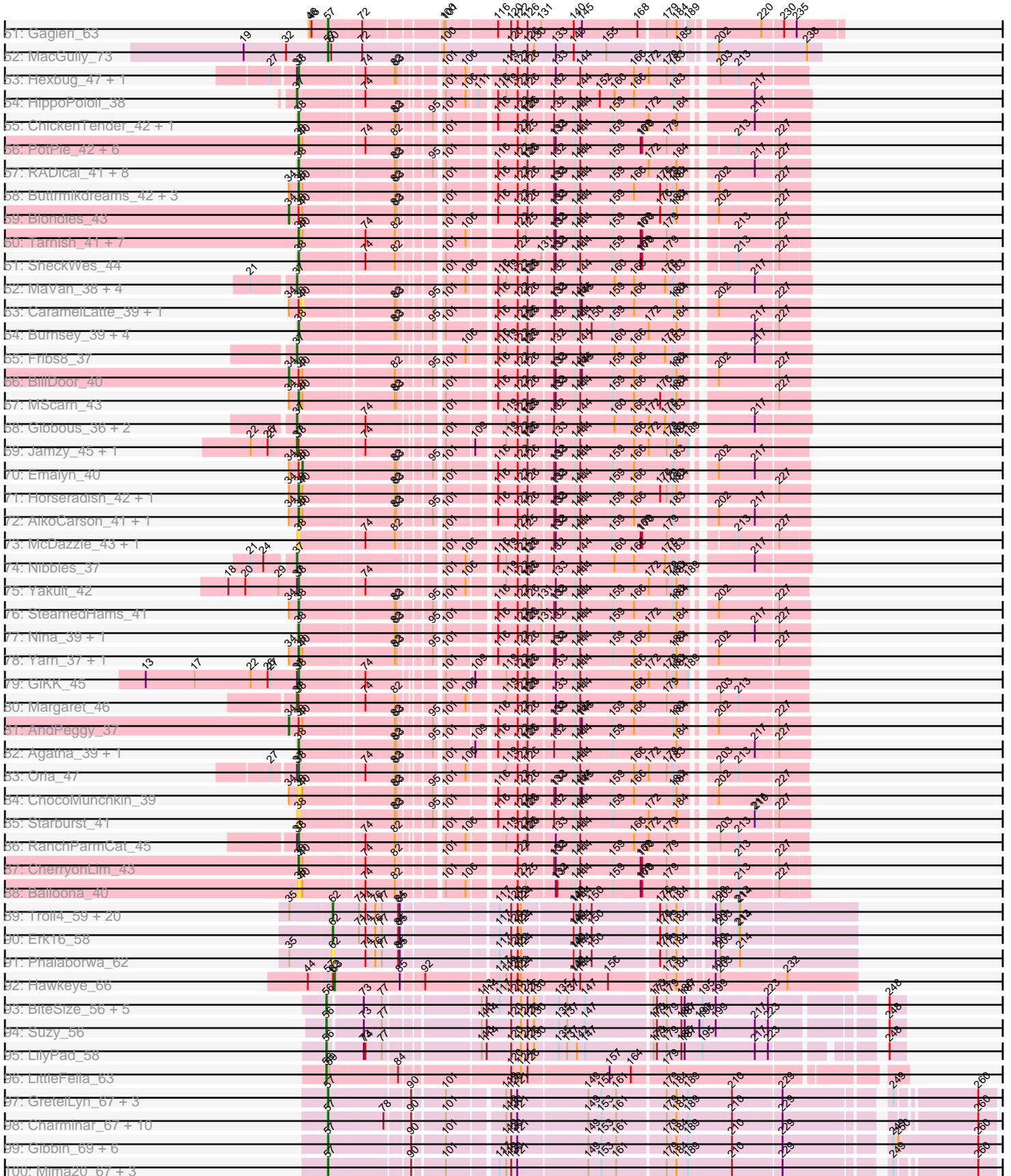


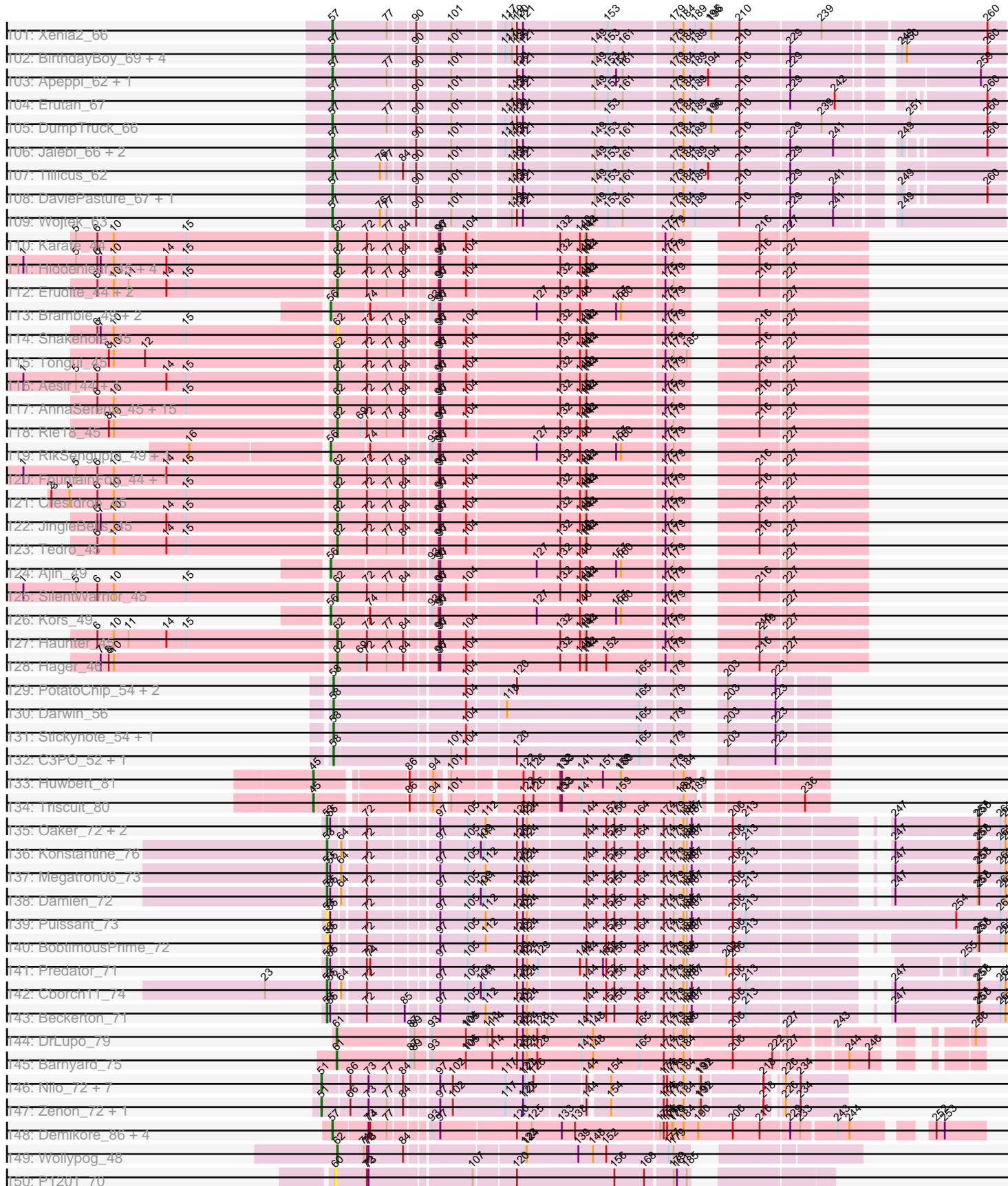
Pham 290757



Pham 290757



Pham 290757



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 290757 Report

This analysis was run 03/28/26 on database version 641.

Pham number 290757 has 325 members, 52 are drafts.

Phages represented in each track:

- Track 1 : Maco6_40
- Track 2 : LongHai_43, Salvus_43, Muddy_42
- Track 3 : FF47_41, 8UZL_42
- Track 4 : JacoRen57_38
- Track 5 : NoShow_50
- Track 6 : Indlulamithi_69
- Track 7 : Cuke_77
- Track 8 : Fowlmouth_78
- Track 9 : MrMiyagi_77
- Track 10 : Leopard_75, Aikoy_76
- Track 11 : Onyinye_76
- Track 12 : Dryad_68
- Track 13 : Rooney_64, Gibson_64
- Track 14 : Yara_60
- Track 15 : PHTowN_64, ShakeNBake_64, Lizz_64
- Track 16 : SassyC_69
- Track 17 : Virizion_69
- Track 18 : Wentworth_64
- Track 19 : Greenbelt_62
- Track 20 : Wilkos_66
- Track 21 : Zuko_81
- Track 22 : KimJongPhill_83
- Track 23 : Flapper_68
- Track 24 : GTE5_54
- Track 25 : Turuncu_68
- Track 26 : Dalilpop_69
- Track 27 : GRU1_54
- Track 28 : Bonum_69, Kabluna_68
- Track 29 : Phomeo_64, Jifall16_64, KidneyBean_65
- Track 30 : Outis_66, StarStruck_66
- Track 31 : Commandaria_66
- Track 32 : MerCougar_67
- Track 33 : NosilaM_67
- Track 34 : NatB6_65, Emianna_65, Kurt_65, NovumRegina_65, GrootJr_67
- Track 35 : Buggaboo_67, SuperSulley_67
- Track 36 : Wheezy_65
- Track 37 : Tracker_65, Arti_64, Foxboro_66

- Track 38 : GTE8_54
- Track 39 : RedRaider_72
- Track 40 : Float294_66, Skysand_67
- Track 41 : Ennea_72, Lollipop1437_69, Patio_67
- Track 42 : HubbaBubba_60, NadineRae_65
- Track 43 : IDyn_64
- Track 44 : WhoseManz_65
- Track 45 : Yndexa_66, Sukkupi_66, Pemberton_68, BiPauneto_68
- Track 46 : Marietta_66
- Track 47 : Pleakley_74, Fury_74
- Track 48 : Scuba_75
- Track 49 : HomeFry_71
- Track 50 : CoffeeBean_64, Maselop_64, Braxoaddie_64, Polyyuki_64, Apiary_64
- Track 51 : Gagieri_63
- Track 52 : MacGully_73
- Track 53 : Hexbug_47, Nodigi_47
- Track 54 : HippoPololi_38
- Track 55 : ChickenTender_42, MunkgeeRoachy_38
- Track 56 : PotPie_42, MAnor_43, Feastonyeet_41, SummitAcademy_41, BigChungus_41, CocoaPuff_42, Mayweather_45
- Track 57 : RADical_41, GoldHunter_41, Axym_39, RSchmailzl_41, Sopespian_39, PsychoKiller_39, Quasar_40, Elliott_40, Carsonalex_43
- Track 58 : Buttrmlkdreams_42, Troje_42, SketchMex_40, Biskit_42
- Track 59 : Blondies_43
- Track 60 : Tarnish_41, Elinal_45, Yucky_44, Vine_44, Bavidard_41, Lauer_38, KayGee_43, Pons_43
- Track 61 : SheckWes_44
- Track 62 : MaVan_38, Azira_38, Wolfwood_40, Zareef_38, Survivors_38
- Track 63 : CaramelLatte_39, CanesSauce_39
- Track 64 : Burnsey_39, Typhonmachy_38, Socotra_41, RedBaron_42, Bubble_38
- Track 65 : Fribs8_37
- Track 66 : BillDoor_40
- Track 67 : MScarn_43
- Track 68 : Gibbous_36, Dre3_36, Cleo_36
- Track 69 : Jamzy_45, Button_43
- Track 70 : Emalyn_40
- Track 71 : Horseradish_42, Yummy_42
- Track 72 : AikoCarson_41, Amok_41
- Track 73 : McDazzle_43, ElJefes_42
- Track 74 : Nibbles_37
- Track 75 : Yakult_42
- Track 76 : SteamedHams_41
- Track 77 : Nina_39, SweatNTears_41
- Track 78 : Yarn_37, Tolls_41
- Track 79 : GiKK_45
- Track 80 : Margaret_46
- Track 81 : AndPeggy_37
- Track 82 : Agatha_39, Cozz_38
- Track 83 : Orla_47
- Track 84 : ChocoMunchkin_39
- Track 85 : Starburst_41
- Track 86 : RanchParmCat_45
- Track 87 : CherryonLim_43

- Track 88 : Balloona_40
- Track 89 : Troll4_59, Thoth_59, BigMama_57, KandZ_58, Helpful_62, Penelope2018_59, Visconti_60, Adjutor_58, Prager_59, PBI1_56, Delton_60, WaldoWhy_61, Giuseppe_60, SuperheroCarly_61, Gumball_59, Nova_58, Butterscotch_58, SirHarley_61, Mopey_60, PLOT_59, Chill_61
- Track 90 : Erk16_58
- Track 91 : Phalaborwa_62
- Track 92 : Hawkeye_66
- Track 93 : BiteSize_56, Terapin_57, Beyoncage_56, Sienna_56, Djokovic_56, Madi_56
- Track 94 : Suzy_56
- Track 95 : LilyPad_58
- Track 96 : LittleFella_63
- Track 97 : GretelLyn_67, Sadboi_68, Yikes_69, Zany_65
- Track 98 : Charminar_67, Alyssamiracle_70, Riduram_67, Jamemuya19_66, NovaSharks_69, Genamy16_70, Astralis_67, Avian_65, Stormer_67, RazorC_67, Rumi_68
- Track 99 : Gibbin_69, Patos_71, Ranch_67, ParvusTarda_66, Lambo_65, Lila22_68, NorManre_71
- Track 100 : Mima20_67, DoobyDoo_66, LavAbarElk_67, Alephilan_68
- Track 101 : Xenia2_66
- Track 102 : BirthdayBoy_69, GOATification_67, Fulcrum_67, Rukungu_69, OtterstedtS21_67
- Track 103 : Apeppi_62, LuckyLeo_64
- Track 104 : Erutan_67
- Track 105 : DumpTruck_66
- Track 106 : Jalebi_66, MoiGyank_70, Sampudon_67
- Track 107 : Tillicus_62
- Track 108 : DaviePasture_67, Rota_64
- Track 109 : Wojtek_63
- Track 110 : Karate_44
- Track 111 : Hiddenleaf_45, Chivey_45, DannyDe_45, FreddieHg_45, Annapurna_45
- Track 112 : Erudite_44, MortySmith_43, Dauntless_44
- Track 113 : Bramble_49, Sparcetus_49, LordBart_49
- Track 114 : Snakehole_45
- Track 115 : Tongui_45
- Track 116 : Aesir_44, JDawG_44
- Track 117 : AnnaSerena_45, Pharpay_45, Kate_46, NarutoRun_45, Cybele_45, Gilda_45, Anakin_45, CoolCookie_45, Rachella_45, OhDear_45, Neptune_45, Krampus_45, PhunaPhoke_45, Potty_45, OverHedge_45, Artiphact_45
- Track 118 : Rie18_45
- Track 119 : RikSengupta_49, TinyMiny_49
- Track 120 : FountainFog_44, Poultruss_44
- Track 121 : Crestdrop_45
- Track 122 : JingleBells_45
- Track 123 : Tedro_45
- Track 124 : Ajin_49
- Track 125 : SilentWarrior_45
- Track 126 : Kors_49
- Track 127 : Haunter_45
- Track 128 : Hager_46
- Track 129 : PotatoChip_54, Zion_54, PeteyPab_53
- Track 130 : Darwin_56

- Track 131 : Stickynote_54, Kimchi1738_53
- Track 132 : C3PO_52, Cruella_52
- Track 133 : Huwbert_81
- Track 134 : Triscuit_80
- Track 135 : Oaker_72, Phreeze_71, Thumb_73
- Track 136 : Konstantine_76
- Track 137 : Megatron06_73
- Track 138 : Damien_72
- Track 139 : Puissant_73
- Track 140 : BobtimousPrime_72
- Track 141 : Predator_71
- Track 142 : Cborch11_74
- Track 143 : Beckerton_71
- Track 144 : DrLupo_79
- Track 145 : Barnyard_75
- Track 146 : Nilo_72, Rope_70, Yelo_69, MontyDev_72, Riparian_72, Candle_68, Papyrus_70, Weiss13_70
- Track 147 : Zenon_72, Send513_70
- Track 148 : Demikore_86, Patience_85, Labelle_84, SuperSonics_88, Madrug_83
- Track 149 : Wollypog_48
- Track 150 : P1201_70
- Track 151 : ChewyVIII_77
- Track 152 : Shrew_85

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

The start number called the most often in the published annotations is 62, it was called in 56 of the 273 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Adjutor_58, Aesir_44, Anakin_45, AnnaSerena_45, Annapurna_45, Artiphact_45, BigMama_57, Butterscotch_58, Chill_61, Chivey_45, CoolCookie_45, Crestdrop_45, Cybele_45, DannyDe_45, Dauntless_44, Delton_60, Erk16_58, Erudite_44, FountainFog_44, FreddieHg_45, Gilda_45, Giuseppe_60, Gumball_59, Hager_46, Haunter_45, Helpful_62, Hiddenleaf_45, JDawG_44, JingleBells_45, KandZ_58, Karate_44, Kate_46, Krampus_45, Mopey_60, MortySmith_43, NarutoRun_45, Neptune_45, Nova_58, OhDear_45, OverHedge_45, PB11_56, PLOT_59, Penelope2018_59, Phalaborwa_62, Pharpay_45, PhunaPhoke_45, Potty_45, Poultruss_44, Prager_59, Rachella_45, Rie18_45, SilentWarrior_45, SirHarley_61, Snakehole_45, SuperheroCarly_61, Tedro_45, Thoth_59, Tongui_45, Troll4_59, Visconti_60, WaldoWhy_61, Wollypog_48,

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

- Cuke_77, Hawkeye_66,

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

- 8UZL_42, Agatha_39, AikoCarson_41, Aikoy_76, Ajin_49, Alephilan_68, Alyssmiracle_70, Amok_41, AndPeggy_37, Apeppi_62, Apiary_64, Arti_64, Astralis_67, Avian_65, Axym_39, Azira_38, Balloona_40, Barnyard_75, Bavidard_41, Beckerton_71, Beyoncage_56, BiPauneto_68, BigChungus_41, BillDoor_40,

BirthdayBoy_69, Biskit_42, BiteSize_56, Blondies_43, BobtimousPrime_72, Bonum_69, Bramble_49, Braxoaddie_64, Bubble_38, Buggaboo_67, Burnsey_39, Button_43, Buttrmlkdreams_42, C3PO_52, Candle_68, CanesSauce_39, CaramellLatte_39, Carsonalex_43, Cborch11_74, Charminar_67, CherryonLim_43, ChewyVIII_77, ChickenTender_42, ChocoMunchkin_39, Cleo_36, CocoaPuff_42, CoffeeBean_64, Commandaria_66, Cozz_38, Cruella_52, Dalilpop_69, Damien_72, Darwin_56, DaviePasture_67, Demikore_86, Djokovic_56, DoobyDoo_66, DrLupo_79, Dre3_36, Dryad_68, DumpTruck_66, ElJefes_42, Elinal_45, Elliott_40, Emalyn_40, Emianna_65, Ennea_72, Erutan_67, FF47_41, Feastonyeet_41, Flapper_68, Float294_66, Fowlmouth_78, Foxboro_66, Fribs8_37, Fulcrum_67, Fury_74, GOATification_67, GRU1_54, GTE5_54, GTE8_54, Gagieri_63, Genamy16_70, GiKK_45, Gibbin_69, Gibbous_36, Gibson_64, GoldHunter_41, Greenbelt_62, Gretellyn_67, GrootJr_67, Hexbug_47, HippoPololi_38, HomeFry_71, Horseradish_42, HubbaBubba_60, Huwbert_81, IDyn_64, Indulamithi_69, JacoRen57_38, Jalebi_66, Jamemuya19_66, Jamzy_45, Jifall16_64, Kabluna_68, KayGee_43, KidneyBean_65, KimJongPhill_83, Kimchi1738_53, Konstantine_76, Kors_49, Kurt_65, Labelle_84, Lambo_65, Lauer_38, LavAbarElk_67, Leopard_75, Lila22_68, LilyPad_58, LittleFella_63, Lizz_64, Lollipop1437_69, LongHai_43, LordBart_49, LuckyLeo_64, MAnor_43, MScarn_43, MaVan_38, MacGully_73, Maco6_40, Madi_56, Madrugua_83, Margaret_46, Marietta_66, Maselop_64, Mayweather_45, McDazzle_43, Megatron06_73, MerCougar_67, Mima20_67, MoiGyank_70, MontyDev_72, MrMiyagi_77, Muddy_42, MunkgeeRoachy_38, NadineRae_65, NatB6_65, Nibbles_37, Nilo_72, Nina_39, NoShow_50, Nodigi_47, NorManre_71, NosilaM_67, NovaSharks_69, NovumRegina_65, Oaker_72, Onyinye_76, Orla_47, OtterstedtS21_67, Outis_66, P1201_70, PHTowN_64, Papyrus_70, ParvusTarda_66, Patience_85, Patio_67, Patos_71, Pemberton_68, PeteyPab_53, Phomeo_64, Phreeze_71, Pleakley_74, Polyyuki_64, Pons_43, PotPie_42, PotatoChip_54, Predator_71, PsychoKiller_39, Puissant_73, Quasar_40, RADical_41, RSchmailzl_41, RanchParmCat_45, Ranch_67, RazorC_67, RedBaron_42, RedRaider_72, Riduram_67, RikSengupta_49, Riparian_72, Rooney_64, Rope_70, Rota_64, Rukungu_69, Rumi_68, Sadboi_68, Salvus_43, Sampudon_67, SassyC_69, Scuba_75, Send513_70, ShakeNBake_64, SheckWes_44, Shrew_85, Sienna_56, SketchMex_40, Skysand_67, Socotra_41, Sopespian_39, Sparcetus_49, StarStruck_66, Starburst_41, SteamedHams_41, Stickynote_54, Stormer_67, Sukkupi_66, SummitAcademy_41, SuperSonics_88, SuperSulley_67, Survivors_38, Suzy_56, SweatNTears_41, Tarnish_41, Terapin_57, Thumb_73, Tillicus_62, TinyMiny_49, Tolls_41, Tracker_65, Triscuit_80, Troje_42, Turuncu_68, Typhonmarchy_38, Vine_44, Virizion_69, Weiss13_70, Wentworth_64, Wheezy_65, WhoseManz_65, Wilkos_66, Wojtek_63, Wolfwood_40, Xenia2_66, Yakult_42, Yara_60, Yarn_37, Yelo_69, Yikes_69, Yndexa_66, Yucky_44, Yummy_42, Zany_65, Zareef_38, Zenon_72, Zion_54, Zuko_81,

Summary by start number:

Start 30:

- Found in 6 of 325 (1.8%) of genes in pham
- Manual Annotations of this start: 2 of 273
- Called 100.0% of time when present
- Phage (with cluster) where this start called: 8UZL_42 (AB), FF47_41 (AB), LongHai_43 (AB), Maco6_40 (AB), Muddy_42 (AB), Salvus_43 (AB),

Start 31:

- Found in 1 of 325 (0.3%) of genes in pham

- Manual Annotations of this start: 1 of 273
- Called 100.0% of time when present
- Phage (with cluster) where this start called: NoShow_50 (AB),

Start 33:

- Found in 1 of 325 (0.3%) of genes in pham
- Manual Annotations of this start: 1 of 273
- Called 100.0% of time when present
- Phage (with cluster) where this start called: JacoRen57_38 (AB),

Start 34:

- Found in 19 of 325 (5.8%) of genes in pham
- Manual Annotations of this start: 3 of 273
- Called 15.8% of time when present
- Phage (with cluster) where this start called: AndPeggy_37 (CT), BillDoor_40 (CT), Blondies_43 (CT),

Start 36:

- Found in 2 of 325 (0.6%) of genes in pham
- Manual Annotations of this start: 2 of 273
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Fowlmouth_78 (AC), MrMiyagi_77 (AC),

Start 37:

- Found in 20 of 325 (6.2%) of genes in pham
- Manual Annotations of this start: 13 of 273
- Called 70.0% of time when present
- Phage (with cluster) where this start called: Azira_38 (CT), Button_43 (CT), Cleo_36 (CT), Dre3_36 (CT), Fribs8_37 (CT), Gibbous_36 (CT), HippoPololi_38 (CT), Jamzy_45 (CT), MaVan_38 (CT), Margaret_46 (CT), Nibbles_37 (CT), Survivors_38 (CT), Wolfwood_40 (CT), Zareef_38 (CT),

Start 38:

- Found in 75 of 325 (23.1%) of genes in pham
- Manual Annotations of this start: 42 of 273
- Called 80.0% of time when present
- Phage (with cluster) where this start called: Agatha_39 (CT), AikoCarson_41 (CT), Amok_41 (CT), Axym_39 (CT), Balloona_40 (CT), Bavidard_41 (CT), BigChungus_41 (CT), Biskit_42 (CT), Bubble_38 (CT), Burnsey_39 (CT), Buttrmldreams_42 (CT), Carsonalex_43 (CT), CherryonLim_43 (CT), ChickenTender_42 (CT), ChocoMunchkin_39 (CT), CocoaPuff_42 (CT), Cozz_38 (CT), ElJefes_42 (CT), Elinal_45 (CT), Elliott_40 (CT), Feastonyeet_41 (CT), GiKK_45 (CT), GoldHunter_41 (CT), Hexbug_47 (CT), Horseradish_42 (CT), KayGee_43 (CT), Lauer_38 (CT), MAnor_43 (CT), MScarn_43 (CT), Mayweather_45 (CT), McDazzle_43 (CT), MunkgeeRoachy_38 (CT), Nina_39 (CT), Nodigi_47 (CT), Orla_47 (CT), Pons_43 (CT), PotPie_42 (CT), PsychoKiller_39 (CT), Quasar_40 (CT), RADical_41 (CT), RSchmailzl_41 (CT), RanchParmCat_45 (CT), RedBaron_42 (CT), SheckWes_44 (CT), SketchMex_40 (CT), Socotra_41 (CT), Sopespian_39 (CT), Starburst_41 (CT), SteamedHams_41 (CT), SummitAcademy_41 (CT), SweatNTears_41 (CT), Tarnish_41 (CT), Tolls_41 (CT), Troje_42 (CT), Typhonmacy_38 (CT), Vine_44 (CT), Yakult_42 (CT), Yarn_37 (CT), Yucky_44 (CT), Yummy_42 (CT),

Start 40:

- Found in 37 of 325 (11.4%) of genes in pham
- Manual Annotations of this start: 3 of 273
- Called 13.5% of time when present
- Phage (with cluster) where this start called: CanesSauce_39 (CT), CaramellLatte_39 (CT), Emalyn_40 (CT), KimJongPhill_83 (BR), Zuko_81 (BR),

Start 43:

- Found in 15 of 325 (4.6%) of genes in pham
- Manual Annotations of this start: 11 of 273
- 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), HomeFry_71 (CR5), Lollipop1437_69 (CR3), Patio_67 (CR3), Pleakley_74 (CR5), RedRaider_72 (CR3), Scuba_75 (CR5), Skysand_67 (CR3), Turuncu_68 (CR1),

Start 45:

- Found in 3 of 325 (0.9%) of genes in pham
- Manual Annotations of this start: 3 of 273
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Huwbert_81 (GG), Shrew_85 (singleton), Triscuit_80 (GG),

Start 47:

- Found in 1 of 325 (0.3%) of genes in pham
- Manual Annotations of this start: 1 of 273
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Commandaria_66 (CR2),

Start 50:

- Found in 9 of 325 (2.8%) of genes in pham
- Manual Annotations of this start: 8 of 273
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BiPauneto_68 (CR4), HubbaBubba_60 (CR4), IDyn_64 (CR4), Marietta_66 (CR4), NadineRae_65 (CR4), Pemberton_68 (CR4), Sukkupi_66 (CR4), WhoseManz_65 (CR4), Yndexa_66 (CR4),

Start 51:

- Found in 10 of 325 (3.1%) of genes in pham
- Manual Annotations of this start: 9 of 273
- 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 52:

- Found in 21 of 325 (6.5%) of genes in pham
- Manual Annotations of this start: 20 of 273
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Arti_64 (CR2), Bonum_69 (CR2), Buggaboo_67 (CR2), Cuke_77 (AC), Emianna_65 (CR2), Foxboro_66 (CR2), GTE8_54 (CR2), GrootJr_67 (CR2), Indlulamithi_69 (AC), Jifall16_64 (CR2), Kabluna_68 (CR2), KidneyBean_65 (CR2), Kurt_65 (CR2), MerCougar_67 (CR2),

NatB6_65 (CR2), NosilaM_67 (CR2), NovumRegina_65 (CR2), Phomeo_64 (CR2), SuperSulley_67 (CR2), Tracker_65 (CR2), Wheezy_65 (CR2),

Start 53:

- Found in 11 of 325 (3.4%) of genes in pham
- Manual Annotations of this start: 9 of 273
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Beckerton_71 (H1), BobtimousPrime_72 (H1), Cborch11_74 (H1), Damien_72 (H1), Konstantine_76 (H1), Megatron06_73 (H1), Oaker_72 (H1), Phreeze_71 (H1), Predator_71 (H1), Puissant_73 (H1), Thumb_73 (H1),

Start 54:

- Found in 3 of 325 (0.9%) of genes in pham
- Manual Annotations of this start: 2 of 273
- Called 66.7% of time when present
- Phage (with cluster) where this start called: Aikoy_76 (AE), Leopard_75 (AE),

Start 56:

- Found in 19 of 325 (5.8%) of genes in pham
- Manual Annotations of this start: 18 of 273
- Called 94.7% of time when present
- Phage (with cluster) where this start called: Ajin_49 (EF), Beyoncage_56 (DG1), BiteSize_56 (DG1), Bramble_49 (EF), Djokovic_56 (DG1), Kors_49 (EF), LilyPad_58 (DG1), LittleFella_63 (DG2), LordBart_49 (EF), Madi_56 (DG1), Outis_66 (CR2), RikSengupta_49 (EF), Sienna_56 (DG1), Sparcetus_49 (EF), StarStruck_66 (CR2), Suzy_56 (DG1), Terapin_57 (DG1), TinyMiny_49 (EF),

Start 57:

- Found in 56 of 325 (17.2%) of genes in pham
- Manual Annotations of this start: 47 of 273
- Called 98.2% of time when present
- Phage (with cluster) where this start called: Alephilan_68 (DV), Alyssamiracle_70 (DV), Apeppi_62 (DV), Apiary_64 (CR6), Astralis_67 (DV), Avian_65 (DV), BirthdayBoy_69 (DV), Braxoaddie_64 (CR6), Charminar_67 (DV), CoffeeBean_64 (CR6), DaviePasture_67 (DV), Demikore_86 (U), DoobyDoo_66 (DV), DumpTruck_66 (DV), Erutan_67 (DV), Fulcrum_67 (DV), GOATification_67 (DV), Gagieri_63 (CR6), Genamy16_70 (DV), Gibbin_69 (DV), GretelLyn_67 (DV), Jalebi_66 (DV), Jamemuya19_66 (DV), Labelle_84 (U), Lambo_65 (DV), LavAbarElk_67 (DV), Lila22_68 (DV), LuckyLeo_64 (DV), MacGully_73 (CR7), Madrugua_83 (U), Maselop_64 (CR6), Mima20_67 (DV), MoiGyank_70 (DV), NorManre_71 (DV), NovaSharks_69 (DV), OtterstedtS21_67 (DV), ParvusTarda_66 (DV), Patience_85 (U), Patos_71 (DV), Polyyuki_64 (CR6), Ranch_67 (DV), RazorC_67 (DV), Riduram_67 (DV), Rota_64 (DV), Rukungu_69 (DV), Rumi_68 (DV), Sadboi_68 (DV), Sampudon_67 (DV), Stormer_67 (DV), SuperSonics_88 (U), Tillicus_62 (DV), Wojtek_63 (DV), Xenia2_66 (DV), Yikes_69 (DV), Zany_65 (DV),

Start 58:

- Found in 8 of 325 (2.5%) of genes in pham
- Manual Annotations of this start: 8 of 273
- Called 100.0% of time when present
- Phage (with cluster) where this start called: C3PO_52 (EN), Cruella_52 (EN), Darwin_56 (EN), Kimchi1738_53 (EN), PeteyPab_53 (EN), PotatoChip_54 (EN),

Stickynote_54 (EN), Zion_54 (EN),

Start 60:

- Found in 14 of 325 (4.3%) of genes in pham
- Manual Annotations of this start: 9 of 273
- Called 92.9% of time when present
- Phage (with cluster) where this start called: Dryad_68 (BN), Gibson_64 (BN), Greenbelt_62 (BN), Lizz_64 (BN), P1201_70 (singleton), PHTowN_64 (BN), Rooney_64 (BN), SassyC_69 (BN), ShakeNBake_64 (BN), Virizion_69 (BN), Wentworth_64 (BN), Wilkos_66 (BN), Yara_60 (BN),

Start 61:

- Found in 2 of 325 (0.6%) of genes in pham
- Manual Annotations of this start: 2 of 273
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Barnyard_75 (H2), DrLupo_79 (H2),

Start 62:

- Found in 64 of 325 (19.7%) of genes in pham
- Manual Annotations of this start: 56 of 273
- Called 96.9% of time when present
- Phage (with cluster) where this start called: Adjutor_58 (D1), Aesir_44 (EF), Anakin_45 (EF), AnnaSerena_45 (EF), Annapurna_45 (EF), Artiphact_45 (EF), 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), Erk16_58 (D1), Erudite_44 (EF), FountainFog_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), OhDear_45 (EF), OverHedge_45 (EF), PBI1_56 (D1), PLOT_59 (D1), Penelope2018_59 (D1), Phalaborwa_62 (D1), Pharpay_45 (EF), PhunaPhoke_45 (EF), Potty_45 (EF), Poultruss_44 (EF), Prager_59 (D1), Rachella_45 (EF), Rie18_45 (EF), SilentWarrior_45 (EF), SirHarley_61 (D1), Snakehole_45 (EF), SuperheroCarly_61 (D1), Tedro_45 (EF), Thoth_59 (D1), Tongui_45 (EF), Troll4_59 (D1), Visconti_60 (D1), WaldoWhy_61 (D1), Wollypog_48 (singleton),

Start 63:

- Found in 7 of 325 (2.2%) of genes in pham
- Manual Annotations of this start: 3 of 273
- Called 42.9% 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, EN, BR, DV, DG2, AC, AB, AE, EF, GG, R, U, CT, CR2, CR3, CR1, CR6, CR7, CR4, CR5, H2, H1, DG1, D2, D1,

Info for manual annotations of cluster AB:

- Start number 30 was manually annotated 2 times for cluster AB.

- Start number 31 was manually annotated 1 time for cluster AB.
- Start number 33 was manually annotated 1 time for cluster AB.

Info for manual annotations of cluster AC:

- Start number 36 was manually annotated 2 times for cluster AC.
- Start number 52 was manually annotated 2 times for cluster AC.

Info for manual annotations of cluster AE:

- Start number 54 was manually annotated 2 times for cluster AE.
- Start number 63 was manually annotated 1 time for cluster AE.

Info for manual annotations of cluster BN:

- Start number 60 was manually annotated 9 times for cluster BN.

Info for manual annotations of cluster BR:

- Start number 40 was manually annotated 2 times for cluster BR.

Info for manual annotations of cluster CR1:

- Start number 43 was manually annotated 3 times for cluster CR1.

Info for manual annotations of cluster CR2:

- Start number 47 was manually annotated 1 time for cluster CR2.
- Start number 52 was manually annotated 18 times for cluster CR2.
- Start number 56 was manually annotated 2 times for cluster CR2.

Info for manual annotations of cluster CR3:

- Start number 43 was manually annotated 6 times for cluster CR3.

Info for manual annotations of cluster CR4:

- Start number 50 was manually annotated 8 times for cluster CR4.

Info for manual annotations of cluster CR5:

- Start number 43 was manually annotated 2 times for cluster CR5.

Info for manual annotations of cluster CR6:

- Start number 57 was manually annotated 6 times for cluster CR6.

Info for manual annotations of cluster CR7:

- Start number 57 was manually annotated 1 time for cluster CR7.

Info for manual annotations of cluster CT:

- Start number 34 was manually annotated 3 times for cluster CT.
- Start number 37 was manually annotated 13 times for cluster CT.
- Start number 38 was manually annotated 42 times for cluster CT.
- Start number 40 was manually annotated 1 time for cluster CT.

Info for manual annotations of cluster D1:

- Start number 62 was manually annotated 21 times for cluster D1.

Info for manual annotations of cluster D2:

- Start number 63 was manually annotated 1 time for cluster D2.

Info for manual annotations of cluster DG1:

- Start number 56 was manually annotated 8 times for cluster DG1.

Info for manual annotations of cluster DG2:

- Start number 56 was manually annotated 1 time for cluster DG2.

Info for manual annotations of cluster DV:

- Start number 57 was manually annotated 37 times for cluster DV.

Info for manual annotations of cluster EF:

- Start number 56 was manually annotated 7 times for cluster EF.
- Start number 62 was manually annotated 34 times for cluster EF.

Info for manual annotations of cluster EN:

- Start number 58 was manually annotated 8 times for cluster EN.

Info for manual annotations of cluster GG:

- Start number 45 was manually annotated 2 times for cluster GG.

Info for manual annotations of cluster H1:

- Start number 53 was manually annotated 9 times for cluster H1.

Info for manual annotations of cluster H2:

- Start number 61 was manually annotated 2 times for cluster H2.

Info for manual annotations of cluster R:

- Start number 51 was manually annotated 9 times for cluster R.

Info for manual annotations of cluster U:

- Start number 57 was manually annotated 3 times for cluster U.

Gene Information:

Gene: 8UZL_42 Start: 30925, Stop: 30080, Start Num: 30

Candidate Starts for 8UZL_42:

(Start: 30 @30925 has 2 MA's), (Start: 38 @30901 has 42 MA's), (67, 30808), (79, 30748), (101, 30670), (104, 30643), (116, 30592), (122, 30559), (144, 30451), (151, 30424), (173, 30322), (183, 30286), (189, 30259), (212, 30196), (228, 30121), (231, 30112),

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

Candidate Starts for Adjutor_58:

(35, 44357), (Start: 62 @44429 has 56 MA's), (71, 44474), (74, 44486), (76, 44504), (77, 44516), (84, 44540), (85, 44543), (117, 44696), (120, 44717), (122, 44726), (124, 44732), (140, 44822), (141, 44825), (144, 44834), (150, 44855), (176, 44966), (179, 44978), (184, 44996), (199, 45047), (203, 45056), (213, 45086), (214, 45089),

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

Candidate Starts for Aesir_44:

(1, 29230), (5, 29326), (6, 29365), (14, 29491), (15, 29527), (Start: 62 @29791 has 56 MA's), (72, 29845), (77, 29881), (84, 29908), (96, 29953), (97, 29956), (104, 30001), (132, 30157), (140, 30193), (143, 30202), (144, 30205), (175, 30334), (179, 30349), (216, 30454), (227, 30496),

Gene: Agatha_39 Start: 28608, Stop: 27790, Start Num: 38

Candidate Starts for Agatha_39:

(Start: 38 @28608 has 42 MA's), (82, 28452), (83, 28449), (95, 28401), (101, 28389), (109, 28341), (116, 28311), (122, 28278), (125, 28263), (126, 28260), (132, 28218), (141, 28179), (144, 28170), (159, 28113), (184, 27999), (217, 27885), (227, 27846),

Gene: AikoCarson_41 Start: 28965, Stop: 28147, Start Num: 38

Candidate Starts for AikoCarson_41:

(Start: 34 @28983 has 3 MA's), (Start: 38 @28965 has 42 MA's), (Start: 40 @28959 has 3 MA's), (82, 28809), (83, 28806), (95, 28758), (101, 28746), (116, 28668), (122, 28635), (126, 28617), (132, 28575), (133, 28572), (141, 28536), (144, 28527), (159, 28470), (166, 28431), (183, 28362), (202, 28308), (217, 28242),

Gene: Aikoy_76 Start: 51990, Stop: 52910, Start Num: 54

Candidate Starts for Aikoy_76:

(Start: 54 @51990 has 2 MA's), (Start: 63 @52005 has 3 MA's), (76, 52077), (77, 52089), (84, 52113), (85, 52116), (93, 52146), (105, 52209), (118, 52266), (120, 52284), (122, 52293), (124, 52299), (131, 52329), (164, 52488), (167, 52497), (168, 52500), (179, 52545), (184, 52563), (199, 52611), (215, 52659), (222, 52698), (240, 52803),

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

Candidate Starts for Ajin_49:

(Start: 56 @31113 has 18 MA's), (93, 31260), (96, 31272), (97, 31275), (127, 31437), (132, 31473), (140, 31509), (157, 31572), (160, 31581), (175, 31650), (179, 31665), (227, 31812),

Gene: Alephilan_68 Start: 45485, Stop: 46561, Start Num: 57

Candidate Starts for Alephilan_68:

(Start: 57 @45485 has 47 MA's), (90, 45617), (101, 45665), (117, 45746), (119, 45758), (120, 45767), (121, 45776), (149, 45899), (153, 45920), (161, 45947), (179, 46028), (184, 46046), (189, 46067), (210, 46145), (229, 46229), (249, 46394), (260, 46532),

Gene: Alyssamiracle_70 Start: 44487, Stop: 45557, Start Num: 57

Candidate Starts for Alyssamiracle_70:

(Start: 57 @44487 has 47 MA's), (78, 44583), (90, 44619), (101, 44667), (119, 44760), (120, 44769), (121, 44778), (149, 44901), (153, 44922), (161, 44949), (179, 45030), (184, 45048), (189, 45069), (210, 45147), (229, 45231), (260, 45528),

Gene: Amok_41 Start: 28989, Stop: 28171, Start Num: 38

Candidate Starts for Amok_41:

(Start: 34 @29007 has 3 MA's), (Start: 38 @28989 has 42 MA's), (Start: 40 @28983 has 3 MA's), (82, 28833), (83, 28830), (95, 28782), (101, 28770), (116, 28692), (122, 28659), (126, 28641), (132, 28599), (133, 28596), (141, 28560), (144, 28551), (159, 28494), (166, 28455), (183, 28386), (202, 28332), (217, 28266),

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

Candidate Starts for Anakin_45:

(6, 29718), (10, 29748), (15, 29880), (Start: 62 @30144 has 56 MA's), (72, 30198), (77, 30234), (84, 30261), (96, 30306), (97, 30309), (104, 30354), (132, 30510), (140, 30546), (143, 30555), (144, 30558), (175, 30687), (179, 30702), (216, 30807), (227, 30849),

Gene: AndPeggy_37 Start: 28407, Stop: 27571, Start Num: 34

Candidate Starts for AndPeggy_37:

(Start: 34 @28407 has 3 MA's), (Start: 38 @28389 has 42 MA's), (Start: 40 @28383 has 3 MA's), (82, 28233), (83, 28230), (95, 28182), (101, 28170), (116, 28092), (122, 28059), (126, 28041), (132, 27999), (133, 27996), (141, 27960), (144, 27951), (145, 27948), (159, 27894), (166, 27855), (183, 27786), (184, 27780), (202, 27732), (227, 27627),

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

Candidate Starts for AnnaSerena_45:

(6, 29753), (10, 29783), (15, 29915), (Start: 62 @30179 has 56 MA's), (72, 30233), (77, 30269), (84, 30296), (96, 30341), (97, 30344), (104, 30389), (132, 30545), (140, 30581), (143, 30590), (144, 30593), (175, 30722), (179, 30737), (216, 30842), (227, 30884),

Gene: Annapurna_45 Start: 29420, Stop: 30265, Start Num: 62

Candidate Starts for Annapurna_45:

(1, 28859), (5, 28955), (6, 28994), (7, 29000), (10, 29024), (14, 29120), (15, 29156), (Start: 62 @29420 has 56 MA's), (72, 29474), (77, 29510), (84, 29537), (96, 29582), (97, 29585), (104, 29630), (132, 29786), (140, 29822), (143, 29831), (144, 29834), (175, 29963), (179, 29978), (216, 30083), (227, 30125),

Gene: Apeppi_62 Start: 44646, Stop: 45731, Start Num: 57

Candidate Starts for Apeppi_62:

(Start: 57 @44646 has 47 MA's), (77, 44739), (90, 44778), (101, 44826), (120, 44928), (121, 44937), (149, 45060), (153, 45081), (157, 45096), (161, 45108), (179, 45189), (184, 45207), (189, 45228), (194, 45249), (210, 45306), (229, 45390), (259, 45690),

Gene: Apiary_64 Start: 48400, Stop: 47549, Start Num: 57

Candidate Starts for Apiary_64:

(Start: 57 @48400 has 47 MA's), (72, 48340), (100, 48220), (103, 48208), (120, 48106), (122, 48097), (126, 48079), (130, 48067), (140, 47995), (179, 47839), (184, 47821), (185, 47815), (220, 47692), (230, 47656), (235, 47635),

Gene: Arti_64 Start: 50810, Stop: 49992, Start Num: 52

Candidate Starts for Arti_64:

(42, 50837), (Start: 52 @50810 has 20 MA's), (72, 50738), (116, 50516), (142, 50375), (145, 50366), (158, 50315), (165, 50279), (179, 50225), (184, 50207), (189, 50192),

Gene: Artiphact_45 Start: 30168, Stop: 31016, Start Num: 62

Candidate Starts for Artiphact_45:

(6, 29742), (10, 29772), (15, 29904), (Start: 62 @30168 has 56 MA's), (72, 30222), (77, 30258), (84, 30285), (96, 30330), (97, 30333), (104, 30378), (132, 30534), (140, 30570), (143, 30579), (144, 30582), (175, 30711), (179, 30726), (216, 30831), (227, 30873),

Gene: Astralis_67 Start: 44066, Stop: 45136, Start Num: 57

Candidate Starts for Astralis_67:

(Start: 57 @44066 has 47 MA's), (78, 44162), (90, 44198), (101, 44246), (119, 44339), (120, 44348), (121, 44357), (149, 44480), (153, 44501), (161, 44528), (179, 44609), (184, 44627), (189, 44648), (210, 44726), (229, 44810), (260, 45107),

Gene: Avian_65 Start: 44215, Stop: 45285, Start Num: 57

Candidate Starts for Avian_65:

(Start: 57 @44215 has 47 MA's), (78, 44311), (90, 44347), (101, 44395), (119, 44488), (120, 44497), (121, 44506), (149, 44629), (153, 44650), (161, 44677), (179, 44758), (184, 44776), (189, 44797), (210, 44875), (229, 44959), (260, 45256),

Gene: Axym_39 Start: 28586, Stop: 27768, Start Num: 38

Candidate Starts for Axym_39:

(Start: 38 @28586 has 42 MA's), (82, 28430), (83, 28427), (95, 28379), (101, 28367), (116, 28289), (122, 28256), (125, 28241), (126, 28238), (132, 28196), (141, 28157), (144, 28148), (159, 28091), (172, 28028), (184, 27977), (217, 27863), (227, 27824),

Gene: Azira_38 Start: 28635, Stop: 27823, Start Num: 37

Candidate Starts for Azira_38:

(21, 28707), (Start: 37 @28635 has 13 MA's), (101, 28419), (106, 28383), (116, 28341), (119, 28326), (122, 28308), (125, 28293), (126, 28290), (132, 28248), (144, 28200), (160, 28140), (166, 28107), (178, 28053), (183, 28038), (217, 27921),

Gene: Balloona_40 Start: 29790, Stop: 28984, Start Num: 38

Candidate Starts for Balloona_40:

(Start: 38 @29790 has 42 MA's), (Start: 40 @29784 has 3 MA's), (74, 29682), (82, 29628), (101, 29565), (106, 29529), (122, 29454), (125, 29439), (133, 29391), (134, 29388), (141, 29355), (144, 29346), (159, 29289), (169, 29241), (170, 29238), (179, 29196), (213, 29103), (227, 29034),

Gene: Barnyard_75 Start: 51526, Stop: 52548, Start Num: 61

Candidate Starts for Barnyard_75:

(Start: 61 @51526 has 2 MA's), (87, 51652), (89, 51658), (93, 51682), (104, 51742), (105, 51745), (114, 51790), (120, 51835), (121, 51844), (124, 51850), (128, 51868), (141, 51949), (148, 51970), (165, 52048), (174, 52093), (179, 52111), (184, 52129), (206, 52204), (222, 52273), (227, 52294), (244, 52387), (246, 52423),

Gene: Bavilard_41 Start: 30011, Stop: 29205, Start Num: 38

Candidate Starts for Bavilard_41:

(Start: 38 @30011 has 42 MA's), (Start: 40 @30005 has 3 MA's), (74, 29903), (82, 29849), (101, 29786), (106, 29750), (122, 29675), (125, 29660), (132, 29615), (133, 29612), (141, 29576), (144, 29567), (159, 29510), (169, 29462), (170, 29459), (179, 29417), (213, 29324), (227, 29255),

Gene: Beckerton_71 Start: 53060, Stop: 54136, Start Num: 53

Candidate Starts for Beckerton_71:

(Start: 53 @53060 has 9 MA's), (55, 53066), (72, 53114), (85, 53177), (97, 53222), (105, 53270), (112, 53300), (120, 53357), (121, 53366), (124, 53372), (144, 53474), (152, 53507), (156, 53522), (164, 53561), (174, 53600), (179, 53618), (184, 53636), (185, 53639), (187, 53648), (206, 53714), (213, 53738), (247, 53927), (257, 54074), (258, 54077), (261, 54116), (262, 54125),

Gene: Beyoncage_56 Start: 41805, Stop: 42734, Start Num: 56

Candidate Starts for Beyoncage_56:

(Start: 56 @41805 has 18 MA's), (73, 41862), (77, 41895), (113, 42045), (114, 42054), (117, 42078), (120, 42099), (124, 42114), (126, 42126), (130, 42138), (135, 42177), (137, 42192), (147, 42225), (173, 42336), (174, 42342), (179, 42360), (186, 42384), (187, 42390), (195, 42420), (199, 42444), (223, 42537), (248, 42705),

Gene: BiPauneto_68 Start: 50402, Stop: 49605, Start Num: 50

Candidate Starts for BiPauneto_68:

(23, 50501), (39, 50429), (Start: 50 @50402 has 8 MA's), (72, 50327), (110, 50153), (133, 50021), (139, 49991), (142, 49982), (145, 49973), (151, 49946), (158, 49919), (168, 49874), (176, 49841), (179, 49829), (184, 49811), (213, 49730), (232, 49652),

Gene: BigChungus_41 Start: 30191, Stop: 29385, Start Num: 38

Candidate Starts for BigChungus_41:

(Start: 38 @30191 has 42 MA's), (Start: 40 @30185 has 3 MA's), (74, 30083), (82, 30029), (101, 29966), (122, 29855), (125, 29840), (132, 29795), (133, 29792), (141, 29756), (144, 29747), (159, 29690), (169, 29642), (170, 29639), (179, 29597), (213, 29504), (227, 29435),

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

Candidate Starts for BigMama_57:

(35, 44433), (Start: 62 @44505 has 56 MA's), (71, 44550), (74, 44562), (76, 44580), (77, 44592), (84, 44616), (85, 44619), (117, 44772), (120, 44793), (122, 44802), (124, 44808), (140, 44898), (141, 44901), (144, 44910), (150, 44931), (176, 45042), (179, 45054), (184, 45072), (199, 45123), (203, 45132), (213, 45162), (214, 45165),

Gene: BillDoor_40 Start: 28078, Stop: 27242, Start Num: 34

Candidate Starts for BillDoor_40:

(Start: 34 @28078 has 3 MA's), (Start: 38 @28060 has 42 MA's), (Start: 40 @28054 has 3 MA's), (82, 27904), (95, 27853), (101, 27841), (116, 27763), (122, 27730), (126, 27712), (132, 27670), (133, 27667), (141, 27631), (144, 27622), (145, 27619), (159, 27565), (166, 27526), (183, 27457), (184, 27451), (202, 27403), (227, 27298),

Gene: BirthdayBoy_69 Start: 45791, Stop: 46882, Start Num: 57

Candidate Starts for BirthdayBoy_69:

(Start: 57 @45791 has 47 MA's), (90, 45923), (101, 45971), (117, 46052), (119, 46064), (120, 46073), (121, 46082), (149, 46205), (153, 46226), (161, 46253), (179, 46334), (184, 46352), (189, 46373), (210, 46451), (229, 46535), (249, 46700), (250, 46709), (260, 46853),

Gene: Biskit_42 Start: 28753, Stop: 27935, Start Num: 38

Candidate Starts for Biskit_42:

(Start: 34 @28771 has 3 MA's), (Start: 38 @28753 has 42 MA's), (Start: 40 @28747 has 3 MA's), (82, 28597), (83, 28594), (101, 28534), (116, 28456), (122, 28423), (126, 28405), (132, 28363), (133, 28360), (141, 28324), (144, 28315), (159, 28258), (166, 28219), (176, 28174), (179, 28162), (183, 28150), (184, 28144), (202, 28096), (227, 27991),

Gene: BiteSize_56 Start: 41891, Stop: 42820, Start Num: 56

Candidate Starts for BiteSize_56:

(Start: 56 @41891 has 18 MA's), (73, 41948), (77, 41981), (113, 42131), (114, 42140), (117, 42164), (120, 42185), (124, 42200), (126, 42212), (130, 42224), (135, 42263), (137, 42278), (147, 42311), (173, 42422), (174, 42428), (179, 42446), (186, 42470), (187, 42476), (195, 42506), (199, 42530), (223, 42623), (248, 42791),

Gene: Blondies_43 Start: 29087, Stop: 28251, Start Num: 34

Candidate Starts for Blondies_43:

(Start: 34 @29087 has 3 MA's), (Start: 38 @29069 has 42 MA's), (Start: 40 @29063 has 3 MA's), (82, 28913), (83, 28910), (101, 28850), (116, 28772), (122, 28739), (126, 28721), (132, 28679), (133, 28676), (141, 28640), (144, 28631), (159, 28574), (176, 28490), (183, 28466), (184, 28460), (202, 28412), (227, 28307),

Gene: BobtimousPrime_72 Start: 53362, Stop: 54438, Start Num: 53

Candidate Starts for BobtimousPrime_72:

(Start: 53 @53362 has 9 MA's), (55, 53368), (72, 53416), (97, 53524), (105, 53572), (112, 53602), (120, 53659), (121, 53668), (124, 53674), (144, 53776), (152, 53809), (156, 53824), (164, 53863), (174, 53902), (179, 53920), (184, 53938), (185, 53941), (187, 53950), (206, 54016), (213, 54040), (257, 54376), (258, 54379), (261, 54418), (262, 54427),

Gene: Bonum_69 Start: 51702, Stop: 50839, Start Num: 52

Candidate Starts for Bonum_69:

(28, 51780), (Start: 52 @51702 has 20 MA's), (91, 51540), (116, 51414), (142, 51273), (151, 51240), (158, 51213), (173, 51147), (179, 51123), (184, 51105), (205, 51051), (215, 51021), (223, 50976),

Gene: Bramble_49 Start: 31162, Stop: 32004, Start Num: 56

Candidate Starts for Bramble_49:

(Start: 56 @31162 has 18 MA's), (74, 31225), (93, 31309), (96, 31321), (97, 31324), (127, 31486), (132, 31522), (140, 31558), (157, 31621), (160, 31630), (175, 31699), (179, 31714), (227, 31861),

Gene: Braxoaddie_64 Start: 48389, Stop: 47538, Start Num: 57

Candidate Starts for Braxoaddie_64:

(Start: 57 @48389 has 47 MA's), (72, 48329), (100, 48209), (103, 48197), (120, 48095), (122, 48086), (126, 48068), (130, 48056), (140, 47984), (179, 47828), (184, 47810), (185, 47804), (220, 47681), (230, 47645), (235, 47624),

Gene: Bubble_38 Start: 28195, Stop: 27377, Start Num: 38

Candidate Starts for Bubble_38:

(Start: 38 @28195 has 42 MA's), (82, 28039), (83, 28036), (95, 27988), (101, 27976), (116, 27898), (122, 27865), (125, 27850), (126, 27847), (132, 27805), (141, 27766), (144, 27757), (150, 27736), (159, 27700), (172, 27637), (184, 27586), (217, 27472), (227, 27433),

Gene: Buggaboo_67 Start: 52253, Stop: 51390, Start Num: 52

Candidate Starts for Buggaboo_67:

(28, 52331), (Start: 52 @52253 has 20 MA's), (91, 52091), (116, 51965), (142, 51824), (151, 51791), (158, 51764), (160, 51758), (173, 51698), (179, 51674), (184, 51656), (205, 51602), (215, 51572), (223, 51527),

Gene: Burnsey_39 Start: 28599, Stop: 27781, Start Num: 38

Candidate Starts for Burnsey_39:

(Start: 38 @28599 has 42 MA's), (82, 28443), (83, 28440), (95, 28392), (101, 28380), (116, 28302), (122, 28269), (125, 28254), (126, 28251), (132, 28209), (141, 28170), (144, 28161), (150, 28140), (159, 28104), (172, 28041), (184, 27990), (217, 27876), (227, 27837),

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

Candidate Starts for Butterscotch_58:

(35, 44417), (Start: 62 @44489 has 56 MA's), (71, 44534), (74, 44546), (76, 44564), (77, 44576), (84, 44600), (85, 44603), (117, 44756), (120, 44777), (122, 44786), (124, 44792), (140, 44882), (141, 44885), (144, 44894), (150, 44915), (176, 45026), (179, 45038), (184, 45056), (199, 45107), (203, 45116), (213, 45146), (214, 45149),

Gene: Button_43 Start: 29230, Stop: 28424, Start Num: 37

Candidate Starts for Button_43:

(22, 29314), (26, 29284), (27, 29278), (Start: 37 @29230 has 13 MA's), (Start: 38 @29227 has 42 MA's), (74, 29128), (101, 29017), (109, 28969), (119, 28924), (122, 28906), (125, 28891), (126, 28888), (133, 28843), (141, 28807), (144, 28798), (166, 28702), (172, 28678), (179, 28645), (183, 28633), (184, 28627), (189, 28606),

Gene: Buttrmlkdreams_42 Start: 29086, Stop: 28268, Start Num: 38

Candidate Starts for Buttrmlkdreams_42:

(Start: 34 @29104 has 3 MA's), (Start: 38 @29086 has 42 MA's), (Start: 40 @29080 has 3 MA's), (82, 28930), (83, 28927), (101, 28867), (116, 28789), (122, 28756), (126, 28738), (132, 28696), (133, 28693), (141, 28657), (144, 28648), (159, 28591), (166, 28552), (176, 28507), (179, 28495), (183, 28483), (184, 28477), (202, 28429), (227, 28324),

Gene: C3PO_52 Start: 45078, Stop: 44314, Start Num: 58

Candidate Starts for C3PO_52:

(Start: 58 @45078 has 8 MA's), (101, 44886), (104, 44859), (120, 44784), (165, 44577), (179, 44523), (203, 44478), (223, 44394),

Gene: Candle_68 Start: 52987, Stop: 53817, Start Num: 51

Candidate Starts for Candle_68:

(Start: 51 @52987 has 9 MA's), (66, 53032), (73, 53062), (77, 53095), (84, 53119), (97, 53167), (102, 53188), (117, 53281), (121, 53311), (123, 53314), (126, 53326), (144, 53410), (154, 53440), (174, 53524), (176, 53530), (179, 53542), (184, 53560), (191, 53587), (192, 53590), (218, 53686), (226, 53707), (234, 53734),

Gene: CanesSauce_39 Start: 28556, Stop: 27744, Start Num: 40

Candidate Starts for CanesSauce_39:

(Start: 34 @28580 has 3 MA's), (Start: 38 @28562 has 42 MA's), (Start: 40 @28556 has 3 MA's), (82, 28406), (83, 28403), (95, 28355), (101, 28343), (116, 28265), (122, 28232), (126, 28214), (132, 28172), (133, 28169), (141, 28133), (144, 28124), (145, 28121), (159, 28067), (166, 28028), (183, 27959), (184, 27953), (202, 27905), (227, 27800),

Gene: CaramellLatte_39 Start: 28556, Stop: 27744, Start Num: 40

Candidate Starts for CaramellLatte_39:

(Start: 34 @28580 has 3 MA's), (Start: 38 @28562 has 42 MA's), (Start: 40 @28556 has 3 MA's), (82, 28406), (83, 28403), (95, 28355), (101, 28343), (116, 28265), (122, 28232), (126, 28214), (132, 28172), (133, 28169), (141, 28133), (144, 28124), (145, 28121), (159, 28067), (166, 28028), (183, 27959), (184, 27953), (202, 27905), (227, 27800),

Gene: Carsonalex_43 Start: 28636, Stop: 27818, Start Num: 38

Candidate Starts for Carsonalex_43:

(Start: 38 @28636 has 42 MA's), (82, 28480), (83, 28477), (95, 28429), (101, 28417), (116, 28339), (122, 28306), (125, 28291), (126, 28288), (132, 28246), (141, 28207), (144, 28198), (159, 28141), (172, 28078), (184, 28027), (217, 27913), (227, 27874),

Gene: Cborch11_74 Start: 52603, Stop: 53682, Start Num: 53

Candidate Starts for Cborch11_74:

(23, 52492), (Start: 53 @52603 has 9 MA's), (55, 52609), (64, 52621), (72, 52657), (97, 52765), (105, 52813), (109, 52834), (111, 52840), (120, 52900), (121, 52909), (124, 52915), (144, 53017), (152, 53050), (156, 53065), (164, 53104), (174, 53143), (179, 53161), (184, 53179), (185, 53182), (187, 53191), (206, 53257), (213, 53281), (247, 53473), (257, 53620), (258, 53623), (261, 53662), (262, 53671),

Gene: Charminar_67 Start: 43825, Stop: 44895, Start Num: 57

Candidate Starts for Charminar_67:

(Start: 57 @43825 has 47 MA's), (78, 43921), (90, 43957), (101, 44005), (119, 44098), (120, 44107), (121, 44116), (149, 44239), (153, 44260), (161, 44287), (179, 44368), (184, 44386), (189, 44407), (210, 44485), (229, 44569), (260, 44866),

Gene: CherryonLim_43 Start: 31329, Stop: 30523, Start Num: 38

Candidate Starts for CherryonLim_43:

(Start: 38 @31329 has 42 MA's), (Start: 40 @31323 has 3 MA's), (74, 31221), (82, 31167), (101, 31104), (122, 30993), (132, 30933), (133, 30930), (141, 30894), (144, 30885), (159, 30828), (169, 30780), (170, 30777), (179, 30735), (213, 30642), (227, 30573),

Gene: ChewyVIII_77 Start: 56830, Stop: 56066, Start Num: 63

Candidate Starts for ChewyVIII_77:

(Start: 63 @56830 has 3 MA's), (65, 56821), (72, 56782), (85, 56716), (124, 56524), (159, 56359), (162, 56335), (173, 56287), (180, 56260), (184, 56245),

Gene: ChickenTender_42 Start: 28367, Stop: 27552, Start Num: 38

Candidate Starts for ChickenTender_42:

(Start: 38 @28367 has 42 MA's), (82, 28211), (83, 28208), (95, 28160), (101, 28148), (116, 28070), (122, 28037), (125, 28022), (126, 28019), (132, 27977), (141, 27938), (144, 27929), (159, 27872), (172, 27809), (184, 27758), (217, 27644),

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

Candidate Starts for Chill_61:

(35, 44480), (Start: 62 @44552 has 56 MA's), (71, 44597), (74, 44609), (76, 44627), (77, 44639), (84, 44663), (85, 44666), (117, 44819), (120, 44840), (122, 44849), (124, 44855), (140, 44945), (141, 44948), (144, 44957), (150, 44978), (176, 45089), (179, 45101), (184, 45119), (199, 45170), (203, 45179), (213, 45209), (214, 45212),

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

Candidate Starts for Chivey_45:

(1, 28808), (5, 28904), (6, 28943), (7, 28949), (10, 28973), (14, 29069), (15, 29105), (Start: 62 @29369 has 56 MA's), (72, 29423), (77, 29459), (84, 29486), (96, 29531), (97, 29534), (104, 29579), (132, 29735), (140, 29771), (143, 29780), (144, 29783), (175, 29912), (179, 29927), (216, 30032), (227, 30074),

Gene: ChocoMunchkin_39 Start: 28562, Stop: 27744, Start Num: 38

Candidate Starts for ChocoMunchkin_39:

(Start: 34 @28580 has 3 MA's), (Start: 38 @28562 has 42 MA's), (Start: 40 @28556 has 3 MA's), (82, 28406), (83, 28403), (95, 28355), (101, 28343), (116, 28265), (122, 28232), (126, 28214), (132, 28172), (133, 28169), (141, 28133), (144, 28124), (145, 28121), (159, 28067), (166, 28028), (183, 27959), (184, 27953), (202, 27905), (227, 27800),

Gene: Cleo_36 Start: 28180, Stop: 27371, Start Num: 37

Candidate Starts for Cleo_36:

(Start: 37 @28180 has 13 MA's), (74, 28078), (101, 27967), (119, 27874), (122, 27856), (125, 27841), (126, 27838), (132, 27796), (144, 27748), (160, 27688), (166, 27655), (172, 27631), (178, 27601), (183, 27586), (217, 27469),

Gene: CocoaPuff_42 Start: 30196, Stop: 29390, Start Num: 38

Candidate Starts for CocoaPuff_42:

(Start: 38 @30196 has 42 MA's), (Start: 40 @30190 has 3 MA's), (74, 30088), (82, 30034), (101, 29971), (122, 29860), (125, 29845), (132, 29800), (133, 29797), (141, 29761), (144, 29752), (159, 29695), (169, 29647), (170, 29644), (179, 29602), (213, 29509), (227, 29440),

Gene: CoffeeBean_64 Start: 48347, Stop: 47496, Start Num: 57

Candidate Starts for CoffeeBean_64:

(Start: 57 @48347 has 47 MA's), (72, 48287), (100, 48167), (103, 48155), (120, 48053), (122, 48044), (126, 48026), (130, 48014), (140, 47942), (179, 47786), (184, 47768), (185, 47762), (220, 47639), (230, 47603), (235, 47582),

Gene: Commandaria_66 Start: 52055, Stop: 51243, Start Num: 47

Candidate Starts for Commandaria_66:

(Start: 47 @52055 has 1 MA's), (72, 51968), (84, 51908), (98, 51851), (99, 51842), (142, 51608), (145, 51599), (151, 51575), (153, 51566), (158, 51548), (179, 51458), (184, 51440), (189, 51425), (190, 51419), (198, 51395),

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

Candidate Starts for CoolCookie_45:

(6, 29748), (10, 29778), (15, 29910), (Start: 62 @30174 has 56 MA's), (72, 30228), (77, 30264), (84, 30291), (96, 30336), (97, 30339), (104, 30384), (132, 30540), (140, 30576), (143, 30585), (144, 30588), (175, 30717), (179, 30732), (216, 30837), (227, 30879),

Gene: Cozz_38 Start: 28196, Stop: 27378, Start Num: 38

Candidate Starts for Cozz_38:

(Start: 38 @28196 has 42 MA's), (82, 28040), (83, 28037), (95, 27989), (101, 27977), (109, 27929), (116, 27899), (122, 27866), (125, 27851), (126, 27848), (132, 27806), (141, 27767), (144, 27758), (159, 27701), (184, 27587), (217, 27473), (227, 27434),

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

Candidate Starts for Crestdrop_45:

(2, 28890), (3, 28896), (4, 28923), (6, 28974), (10, 29004), (15, 29136), (Start: 62 @29400 has 56 MA's), (72, 29454), (77, 29490), (84, 29517), (96, 29562), (97, 29565), (104, 29610), (132, 29766), (140, 29802), (143, 29811), (144, 29814), (175, 29943), (179, 29958), (216, 30063), (227, 30105),

Gene: Cruella_52 Start: 45078, Stop: 44314, Start Num: 58

Candidate Starts for Cruella_52:

(Start: 58 @45078 has 8 MA's), (101, 44886), (104, 44859), (120, 44784), (165, 44577), (179, 44523), (203, 44478), (223, 44394),

Gene: Cuke_77 Start: 46278, Stop: 47102, Start Num: 52

Candidate Starts for Cuke_77:

(Start: 52 @46278 has 20 MA's), (Start: 56 @46290 has 18 MA's), (Start: 62 @46302 has 56 MA's), (Start: 63 @46305 has 3 MA's), (77, 46389), (84, 46413), (96, 46458), (97, 46461), (112, 46539), (118, 46578), (124, 46611), (129, 46632), (130, 46635), (140, 46701), (142, 46707), (152, 46746), (156, 46761), (177, 46848), (179, 46857), (184, 46875), (195, 46914), (201, 46941), (211, 46971), (214, 46980), (217, 47004), (231, 47055),

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

Candidate Starts for Cybele_45:

(6, 29718), (10, 29748), (15, 29880), (Start: 62 @30144 has 56 MA's), (72, 30198), (77, 30234), (84, 30261), (96, 30306), (97, 30309), (104, 30354), (132, 30510), (140, 30546), (143, 30555), (144, 30558), (175, 30687), (179, 30702), (216, 30807), (227, 30849),

Gene: Dalilpop_69 Start: 52942, Stop: 52163, Start Num: 43

Candidate Starts for Dalilpop_69:

(Start: 43 @52942 has 11 MA's), (72, 52855), (139, 52516), (142, 52507), (150, 52480), (151, 52474), (158, 52447), (165, 52417), (179, 52363), (181, 52357), (184, 52345), (200, 52303), (215, 52267),

Gene: Damien_72 Start: 52565, Stop: 53644, Start Num: 53

Candidate Starts for Damien_72:

(Start: 53 @52565 has 9 MA's), (55, 52571), (64, 52583), (72, 52619), (97, 52727), (105, 52775), (109, 52796), (111, 52802), (120, 52862), (121, 52871), (124, 52877), (144, 52979), (152, 53012), (156, 53027), (164, 53066), (174, 53105), (179, 53123), (184, 53141), (185, 53144), (187, 53153), (206, 53219), (213, 53243), (247, 53435), (257, 53582), (258, 53585), (261, 53624), (262, 53633),

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

Candidate Starts for DannyDe_45:

(1, 28814), (5, 28910), (6, 28949), (7, 28955), (10, 28979), (14, 29075), (15, 29111), (Start: 62 @29375 has 56 MA's), (72, 29429), (77, 29465), (84, 29492), (96, 29537), (97, 29540), (104, 29585), (132, 29741), (140, 29777), (143, 29786), (144, 29789), (175, 29918), (179, 29933), (216, 30038), (227, 30080),

Gene: Darwin_56 Start: 44559, Stop: 43795, Start Num: 58

Candidate Starts for Darwin_56:

(Start: 58 @44559 has 8 MA's), (104, 44340), (118, 44283), (165, 44058), (179, 44004), (203, 43959), (223, 43875),

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

Candidate Starts for Dauntless_44:

(6, 29301), (10, 29331), (11, 29358), (14, 29427), (15, 29463), (Start: 62 @29727 has 56 MA's), (72, 29781), (77, 29817), (84, 29844), (96, 29889), (97, 29892), (104, 29937), (132, 30093), (140, 30129), (143, 30138), (144, 30141), (175, 30270), (179, 30285), (216, 30390), (227, 30432),

Gene: DaviePasture_67 Start: 45399, Stop: 46469, Start Num: 57

Candidate Starts for DaviePasture_67:

(Start: 57 @45399 has 47 MA's), (90, 45531), (101, 45579), (119, 45672), (120, 45681), (121, 45690), (149, 45813), (153, 45834), (161, 45861), (179, 45942), (184, 45960), (189, 45981), (210, 46059), (229, 46143), (241, 46221), (249, 46308), (260, 46440),

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

Candidate Starts for Delton_60:

(35, 44815), (Start: 62 @44887 has 56 MA's), (71, 44932), (74, 44944), (76, 44962), (77, 44974), (84, 44998), (85, 45001), (117, 45154), (120, 45175), (122, 45184), (124, 45190), (140, 45280), (141, 45283), (144, 45292), (150, 45313), (176, 45424), (179, 45436), (184, 45454), (199, 45505), (203, 45514), (213, 45544), (214, 45547),

Gene: Demikore_86 Start: 54792, Stop: 55850, Start Num: 57

Candidate Starts for Demikore_86:

(Start: 57 @54792 has 47 MA's), (73, 54849), (74, 54852), (77, 54882), (93, 54939), (97, 54954), (120, 55083), (125, 55107), (133, 55161), (138, 55185), (173, 55329), (174, 55335), (176, 55341), (178, 55350), (179, 55353), (184, 55371), (190, 55398), (206, 55458), (216, 55506), (229, 55554), (233, 55572), (243, 55632), (244, 55653), (252, 55761), (253, 55776),

Gene: Djokovic_56 Start: 41804, Stop: 42733, Start Num: 56

Candidate Starts for Djokovic_56:

(Start: 56 @41804 has 18 MA's), (73, 41861), (77, 41894), (113, 42044), (114, 42053), (117, 42077), (120, 42098), (124, 42113), (126, 42125), (130, 42137), (135, 42176), (137, 42191), (147, 42224), (173, 42335), (174, 42341), (179, 42359), (186, 42383), (187, 42389), (195, 42419), (199, 42443), (223, 42536), (248, 42704),

Gene: DoobyDoo_66 Start: 44375, Stop: 45445, Start Num: 57

Candidate Starts for DoobyDoo_66:

(Start: 57 @44375 has 47 MA's), (90, 44507), (101, 44555), (117, 44636), (119, 44648), (120, 44657), (121, 44666), (149, 44789), (153, 44810), (161, 44837), (179, 44918), (184, 44936), (189, 44957), (210, 45035), (229, 45119), (249, 45284), (260, 45416),

Gene: DrLupo_79 Start: 52740, Stop: 53756, Start Num: 61

Candidate Starts for DrLupo_79:

(Start: 61 @52740 has 2 MA's), (87, 52866), (89, 52872), (93, 52896), (104, 52956), (105, 52959), (113, 52995), (114, 53004), (120, 53049), (121, 53058), (124, 53064), (128, 53082), (131, 53100), (141, 53163), (148, 53184), (165, 53262), (174, 53307), (179, 53325), (184, 53343), (185, 53349), (206, 53418), (227, 53508), (243, 53577), (256, 53739),

Gene: Dre3_36 Start: 27923, Stop: 27114, Start Num: 37

Candidate Starts for Dre3_36:

(Start: 37 @27923 has 13 MA's), (74, 27821), (101, 27710), (119, 27617), (122, 27599), (125, 27584), (126, 27581), (132, 27539), (144, 27491), (160, 27431), (166, 27398), (172, 27374), (178, 27344), (183, 27329), (217, 27212),

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

Candidate Starts for Dryad_68:

(Start: 60 @46911 has 9 MA's), (66, 46884), (72, 46857), (75, 46848), (77, 46821), (84, 46797), (85, 46794), (119, 46635), (135, 46545), (136, 46539), (146, 46500), (151, 46479), (179, 46362), (181, 46356), (185, 46338), (204, 46311), (221, 46239),

Gene: DumpTruck_66 Start: 44187, Stop: 45317, Start Num: 57

Candidate Starts for DumpTruck_66:

(Start: 57 @44187 has 47 MA's), (77, 44283), (90, 44322), (101, 44370), (117, 44451), (119, 44463), (120, 44472), (121, 44481), (153, 44625), (179, 44733), (184, 44751), (189, 44772), (195, 44796), (196, 44799), (210, 44850), (239, 44991), (251, 45147), (260, 45285),

Gene: ElJefes_42 Start: 30536, Stop: 29730, Start Num: 38

Candidate Starts for ElJefes_42:

(Start: 38 @30536 has 42 MA's), (74, 30428), (82, 30374), (101, 30311), (122, 30200), (125, 30185), (132, 30140), (133, 30137), (141, 30101), (144, 30092), (159, 30035), (169, 29987), (170, 29984), (179, 29942), (213, 29849), (227, 29780),

Gene: Elinal_45 Start: 30579, Stop: 29773, Start Num: 38

Candidate Starts for Elinal_45:

(Start: 38 @30579 has 42 MA's), (Start: 40 @30573 has 3 MA's), (74, 30471), (82, 30417), (101, 30354), (106, 30318), (122, 30243), (125, 30228), (132, 30183), (133, 30180), (141, 30144), (144, 30135), (159, 30078), (169, 30030), (170, 30027), (179, 29985), (213, 29892), (227, 29823),

Gene: Elliott_40 Start: 28607, Stop: 27789, Start Num: 38

Candidate Starts for Elliott_40:

(Start: 38 @28607 has 42 MA's), (82, 28451), (83, 28448), (95, 28400), (101, 28388), (116, 28310), (122, 28277), (125, 28262), (126, 28259), (132, 28217), (141, 28178), (144, 28169), (159, 28112), (172, 28049), (184, 27998), (217, 27884), (227, 27845),

Gene: Emalyn_40 Start: 28151, Stop: 27339, Start Num: 40

Candidate Starts for Emalyn_40:

(Start: 34 @28175 has 3 MA's), (Start: 38 @28157 has 42 MA's), (Start: 40 @28151 has 3 MA's), (82, 28001), (83, 27998), (95, 27950), (101, 27938), (116, 27860), (122, 27827), (126, 27809), (132, 27767), (133, 27764), (141, 27728), (144, 27719), (159, 27662), (166, 27623), (183, 27554), (202, 27500), (217, 27434),

Gene: Emianna_65 Start: 52042, Stop: 51221, Start Num: 52

Candidate Starts for Emianna_65:

(42, 52069), (Start: 52 @52042 has 20 MA's), (72, 51970), (116, 51748), (142, 51607), (145, 51598), (158, 51547), (165, 51511), (179, 51457), (184, 51439), (189, 51424), (224, 51301),

Gene: Ennea_72 Start: 53024, Stop: 52245, Start Num: 43

Candidate Starts for Ennea_72:

(Start: 43 @53024 has 11 MA's), (72, 52940), (142, 52592), (158, 52532), (165, 52496), (179, 52442), (184, 52424), (197, 52391), (200, 52382), (222, 52307), (224, 52295),

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

Candidate Starts for Erk16_58:

(Start: 62 @44591 has 56 MA's), (71, 44636), (74, 44648), (76, 44666), (77, 44678), (84, 44702), (85, 44705), (117, 44858), (120, 44879), (122, 44888), (124, 44894), (140, 44984), (141, 44987), (144, 44996), (150, 45017), (176, 45128), (179, 45140), (184, 45158), (199, 45209), (203, 45218), (213, 45248), (214, 45251),

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

Candidate Starts for Erudite_44:

(6, 29301), (10, 29331), (11, 29358), (14, 29427), (15, 29463), (Start: 62 @29727 has 56 MA's), (72, 29781), (77, 29817), (84, 29844), (96, 29889), (97, 29892), (104, 29937), (132, 30093), (140, 30129), (143, 30138), (144, 30141), (175, 30270), (179, 30285), (216, 30390), (227, 30432),

Gene: Erutan_67 Start: 45017, Stop: 46087, Start Num: 57

Candidate Starts for Erutan_67:

(Start: 57 @45017 has 47 MA's), (90, 45149), (101, 45197), (119, 45290), (120, 45299), (121, 45308), (149, 45431), (153, 45452), (161, 45479), (179, 45560), (184, 45578), (189, 45599), (210, 45677), (229, 45761), (242, 45842), (260, 46058),

Gene: FF47_41 Start: 30836, Stop: 29991, Start Num: 30

Candidate Starts for FF47_41:

(Start: 30 @30836 has 2 MA's), (Start: 38 @30812 has 42 MA's), (67, 30719), (79, 30659), (101, 30581), (104, 30554), (116, 30503), (122, 30470), (144, 30362), (151, 30335), (173, 30233), (183, 30197), (189, 30170), (212, 30107), (228, 30032), (231, 30023),

Gene: Feastonyeet_41 Start: 30191, Stop: 29385, Start Num: 38

Candidate Starts for Feastonyeet_41:

(Start: 38 @30191 has 42 MA's), (Start: 40 @30185 has 3 MA's), (74, 30083), (82, 30029), (101, 29966), (122, 29855), (125, 29840), (132, 29795), (133, 29792), (141, 29756), (144, 29747), (159, 29690), (169, 29642), (170, 29639), (179, 29597), (213, 29504), (227, 29435),

Gene: Flapper_68 Start: 52133, Stop: 51354, Start Num: 43

Candidate Starts for Flapper_68:

(Start: 43 @52133 has 11 MA's), (72, 52046), (85, 51983), (139, 51707), (142, 51698), (151, 51665), (158, 51638), (165, 51608), (179, 51554), (181, 51548), (184, 51536), (185, 51530), (200, 51494), (215, 51458),

Gene: Float294_66 Start: 52739, Stop: 51960, Start Num: 43

Candidate Starts for Float294_66:

(Start: 43 @52739 has 11 MA's), (72, 52655), (89, 52580), (142, 52307), (158, 52247), (165, 52211), (179, 52157), (184, 52139), (197, 52106), (200, 52097), (222, 52022), (224, 52010),

Gene: FountainFog_44 Start: 29411, Stop: 30256, Start Num: 62

Candidate Starts for FountainFog_44:

(1, 28850), (5, 28946), (6, 28985), (10, 29015), (14, 29111), (15, 29147), (Start: 62 @29411 has 56 MA's), (72, 29465), (77, 29501), (84, 29528), (96, 29573), (97, 29576), (104, 29621), (132, 29777), (140, 29813), (143, 29822), (144, 29825), (175, 29954), (179, 29969), (216, 30074), (227, 30116),

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

Candidate Starts for Fowlmouth_78:

(Start: 36 @48807 has 2 MA's), (85, 48993), (96, 49035), (97, 49038), (112, 49116), (115, 49146), (124, 49188), (126, 49200), (130, 49212), (139, 49275), (142, 49284), (152, 49323), (177, 49425), (179, 49434), (195, 49491), (211, 49548), (214, 49557), (217, 49581), (231, 49632),

Gene: Foxboro_66 Start: 52567, Stop: 51746, Start Num: 52

Candidate Starts for Foxboro_66:

(42, 52594), (Start: 52 @52567 has 20 MA's), (72, 52495), (116, 52273), (142, 52132), (145, 52123), (158, 52072), (165, 52036), (179, 51982), (184, 51964), (189, 51949),

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

Candidate Starts for FreddieHg_45:

(1, 28824), (5, 28920), (6, 28959), (7, 28965), (10, 28989), (14, 29085), (15, 29121), (Start: 62 @29385 has 56 MA's), (72, 29439), (77, 29475), (84, 29502), (96, 29547), (97, 29550), (104, 29595), (132, 29751), (140, 29787), (143, 29796), (144, 29799), (175, 29928), (179, 29943), (216, 30048), (227, 30090),

Gene: Fribs8_37 Start: 28362, Stop: 27550, Start Num: 37

Candidate Starts for Fribs8_37:

(Start: 37 @28362 has 13 MA's), (106, 28110), (116, 28068), (119, 28053), (122, 28035), (125, 28020), (126, 28017), (132, 27975), (144, 27927), (160, 27867), (166, 27834), (178, 27780), (183, 27765), (217, 27648),

Gene: Fulcrum_67 Start: 45099, Stop: 46190, Start Num: 57

Candidate Starts for Fulcrum_67:

(Start: 57 @45099 has 47 MA's), (90, 45231), (101, 45279), (117, 45360), (119, 45372), (120, 45381), (121, 45390), (149, 45513), (153, 45534), (161, 45561), (179, 45642), (184, 45660), (189, 45681), (210, 45759), (229, 45843), (249, 46008), (250, 46017), (260, 46161),

Gene: Fury_74 Start: 51253, Stop: 50462, Start Num: 43

Candidate Starts for Fury_74:

(Start: 43 @51253 has 11 MA's), (72, 51157), (120, 50923), (142, 50812), (145, 50803), (150, 50785), (152, 50773), (158, 50752), (179, 50662), (184, 50644), (189, 50629), (213, 50569),

Gene: GOATification_67 Start: 45099, Stop: 46190, Start Num: 57

Candidate Starts for GOATification_67:

(Start: 57 @45099 has 47 MA's), (90, 45231), (101, 45279), (117, 45360), (119, 45372), (120, 45381), (121, 45390), (149, 45513), (153, 45534), (161, 45561), (179, 45642), (184, 45660), (189, 45681), (210, 45759), (229, 45843), (249, 46008), (250, 46017), (260, 46161),

Gene: GRU1_54 Start: 43981, Stop: 43202, Start Num: 43

Candidate Starts for GRU1_54:

(Start: 43 @43981 has 11 MA's), (72, 43894), (139, 43555), (142, 43546), (151, 43513), (158, 43486), (165, 43456), (179, 43402), (181, 43396), (184, 43384), (189, 43369), (200, 43342), (215, 43306),

Gene: GTE5_54 Start: 45013, Stop: 44234, Start Num: 43

Candidate Starts for GTE5_54:

(Start: 43 @45013 has 11 MA's), (72, 44926), (139, 44587), (142, 44578), (151, 44545), (158, 44518), (165, 44488), (179, 44434), (181, 44428), (184, 44416), (200, 44374), (215, 44338),

Gene: GTE8_54 Start: 45279, Stop: 44458, Start Num: 52

Candidate Starts for GTE8_54:

(42, 45306), (Start: 52 @45279 has 20 MA's), (72, 45207), (116, 44985), (142, 44844), (145, 44835), (158, 44784), (165, 44748), (179, 44694), (184, 44676), (189, 44661), (225, 44535),

Gene: Gagieri_63 Start: 48427, Stop: 47585, Start Num: 57

Candidate Starts for Gagieri_63:

(46, 48457), (48, 48454), (Start: 57 @48427 has 47 MA's), (72, 48367), (100, 48247), (101, 48244), (116, 48157), (120, 48133), (122, 48124), (126, 48106), (131, 48082), (140, 48022), (145, 48007), (168, 47911), (179, 47866), (184, 47848), (189, 47833), (220, 47719), (230, 47683), (235, 47662),

Gene: Genamy16_70 Start: 44473, Stop: 45543, Start Num: 57

Candidate Starts for Genamy16_70:

(Start: 57 @44473 has 47 MA's), (78, 44569), (90, 44605), (101, 44653), (119, 44746), (120, 44755), (121, 44764), (149, 44887), (153, 44908), (161, 44935), (179, 45016), (184, 45034), (189, 45055), (210, 45133), (229, 45217), (260, 45514),

Gene: GiKK_45 Start: 29557, Stop: 28754, Start Num: 38

Candidate Starts for GiKK_45:

(13, 29836), (17, 29746), (22, 29644), (26, 29614), (27, 29608), (Start: 37 @29560 has 13 MA's), (Start: 38 @29557 has 42 MA's), (74, 29458), (101, 29347), (109, 29299), (119, 29254), (122, 29236), (125, 29221), (126, 29218), (133, 29173), (141, 29137), (144, 29128), (166, 29032), (172, 29008), (179, 28975), (183, 28963), (184, 28957), (189, 28936),

Gene: Gibbin_69 Start: 45904, Stop: 46995, Start Num: 57

Candidate Starts for Gibbin_69:

(Start: 57 @45904 has 47 MA's), (90, 46036), (101, 46084), (119, 46177), (120, 46186), (121, 46195), (149, 46318), (153, 46339), (161, 46366), (179, 46447), (184, 46465), (189, 46486), (210, 46564), (229, 46648), (249, 46813), (250, 46822), (260, 46966),

Gene: Gibbous_36 Start: 27923, Stop: 27114, Start Num: 37

Candidate Starts for Gibbous_36:

(Start: 37 @27923 has 13 MA's), (74, 27821), (101, 27710), (119, 27617), (122, 27599), (125, 27584), (126, 27581), (132, 27539), (144, 27491), (160, 27431), (166, 27398), (172, 27374), (178, 27344), (183, 27329), (217, 27212),

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

Candidate Starts for Gibson_64:

(Start: 60 @46180 has 9 MA's), (72, 46126), (75, 46117), (77, 46090), (84, 46066), (97, 46018), (118, 45913), (135, 45814), (136, 45808), (146, 45769), (151, 45748), (168, 45676), (179, 45631), (181, 45625), (185, 45607), (204, 45580), (221, 45508),

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

Candidate Starts for Gilda_45:

(6, 29742), (10, 29772), (15, 29904), (Start: 62 @30168 has 56 MA's), (72, 30222), (77, 30258), (84, 30285), (96, 30330), (97, 30333), (104, 30378), (132, 30534), (140, 30570), (143, 30579), (144, 30582), (175, 30711), (179, 30726), (216, 30831), (227, 30873),

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

Candidate Starts for Giuseppe_60:

(35, 44385), (Start: 62 @44457 has 56 MA's), (71, 44502), (74, 44514), (76, 44532), (77, 44544), (84, 44568), (85, 44571), (117, 44724), (120, 44745), (122, 44754), (124, 44760), (140, 44850), (141, 44853), (144, 44862), (150, 44883), (176, 44994), (179, 45006), (184, 45024), (199, 45075), (203, 45084), (213, 45114), (214, 45117),

Gene: GoldHunter_41 Start: 28608, Stop: 27790, Start Num: 38

Candidate Starts for GoldHunter_41:

(Start: 38 @28608 has 42 MA's), (82, 28452), (83, 28449), (95, 28401), (101, 28389), (116, 28311), (122, 28278), (125, 28263), (126, 28260), (132, 28218), (141, 28179), (144, 28170), (159, 28113), (172, 28050), (184, 27999), (217, 27885), (227, 27846),

Gene: Greenbelt_62 Start: 42280, Stop: 41495, Start Num: 60

Candidate Starts for Greenbelt_62:

(Start: 60 @42280 has 9 MA's), (72, 42226), (74, 42220), (77, 42190), (88, 42154), (146, 41869), (151, 41848), (158, 41821), (179, 41731), (181, 41725), (185, 41707), (207, 41671), (221, 41608), (228, 41581),

Gene: Gretellyn_67 Start: 45889, Stop: 46959, Start Num: 57

Candidate Starts for Gretellyn_67:

(Start: 57 @45889 has 47 MA's), (90, 46021), (101, 46069), (119, 46162), (120, 46171), (121, 46180), (149, 46303), (153, 46324), (161, 46351), (179, 46432), (184, 46450), (189, 46471), (210, 46549), (229, 46633), (249, 46798), (260, 46930),

Gene: GrootJr_67 Start: 51436, Stop: 50615, Start Num: 52

Candidate Starts for GrootJr_67:

(42, 51463), (Start: 52 @51436 has 20 MA's), (72, 51364), (116, 51142), (142, 51001), (145, 50992), (158, 50941), (165, 50905), (179, 50851), (184, 50833), (189, 50818), (224, 50695),

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

Candidate Starts for Gumball_59:

(35, 44877), (Start: 62 @44949 has 56 MA's), (71, 44994), (74, 45006), (76, 45024), (77, 45036), (84, 45060), (85, 45063), (117, 45216), (120, 45237), (122, 45246), (124, 45252), (140, 45342), (141, 45345), (144, 45354), (150, 45375), (176, 45486), (179, 45498), (184, 45516), (199, 45567), (203, 45576), (213, 45606), (214, 45609),

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

Candidate Starts for Hager_46:

(7, 29173), (8, 29188), (9, 29191), (10, 29197), (Start: 62 @29593 has 56 MA's), (69, 29635), (72, 29647), (77, 29683), (84, 29710), (96, 29755), (97, 29758), (104, 29803), (132, 29959), (140, 29995), (143, 30004), (144, 30007), (152, 30040), (175, 30136), (179, 30151), (216, 30256), (227, 30298),

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

Candidate Starts for Haunter_45:

(6, 29125), (10, 29155), (11, 29182), (14, 29251), (15, 29287), (Start: 62 @29551 has 56 MA's), (72, 29605), (77, 29641), (84, 29668), (96, 29713), (97, 29716), (104, 29761), (132, 29917), (140, 29953), (143, 29962), (144, 29965), (175, 30094), (179, 30109), (216, 30214), (219, 30220), (227, 30256),

Gene: Hawkeye_66 Start: 44818, Stop: 45684, Start Num: 63

Candidate Starts for Hawkeye_66:

(44, 44773), (Start: 57 @44806 has 47 MA's), (Start: 62 @44815 has 56 MA's), (Start: 63 @44818 has 3 MA's), (85, 44929), (92, 44962), (117, 45082), (119, 45094), (120, 45103), (122, 45112), (124, 45118), (140, 45208), (141, 45211), (144, 45220), (156, 45268), (179, 45364), (184, 45382), (199, 45436), (203, 45445), (232, 45556),

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

Candidate Starts for Helpful_62:

(35, 44746), (Start: 62 @44818 has 56 MA's), (71, 44863), (74, 44875), (76, 44893), (77, 44905), (84, 44929), (85, 44932), (117, 45085), (120, 45106), (122, 45115), (124, 45121), (140, 45211), (141,

45214), (144, 45223), (150, 45244), (176, 45355), (179, 45367), (184, 45385), (199, 45436), (203, 45445), (213, 45475), (214, 45478),

Gene: Hexbug_47 Start: 31341, Stop: 30535, Start Num: 38

Candidate Starts for Hexbug_47:

(27, 31383), (Start: 37 @31344 has 13 MA's), (Start: 38 @31341 has 42 MA's), (74, 31239), (82, 31185), (83, 31182), (101, 31128), (106, 31092), (119, 31035), (122, 31017), (126, 30999), (133, 30954), (144, 30909), (166, 30813), (172, 30789), (179, 30756), (183, 30744), (203, 30690), (213, 30657),

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

Candidate Starts for Hiddenleaf_45:

(1, 28808), (5, 28904), (6, 28943), (7, 28949), (10, 28973), (14, 29069), (15, 29105), (Start: 62 @29369 has 56 MA's), (72, 29423), (77, 29459), (84, 29486), (96, 29531), (97, 29534), (104, 29579), (132, 29735), (140, 29771), (143, 29780), (144, 29783), (175, 29912), (179, 29927), (216, 30032), (227, 30074),

Gene: HippoPololi_38 Start: 28375, Stop: 27566, Start Num: 37

Candidate Starts for HippoPololi_38:

(Start: 37 @28375 has 13 MA's), (74, 28273), (101, 28162), (106, 28126), (111, 28108), (116, 28084), (119, 28069), (122, 28051), (126, 28033), (132, 27991), (144, 27943), (152, 27910), (160, 27883), (166, 27850), (183, 27781), (217, 27664),

Gene: HomeFry_71 Start: 49956, Stop: 49168, Start Num: 43

Candidate Starts for HomeFry_71:

(Start: 43 @49956 has 11 MA's), (49, 49944), (72, 49860), (104, 49713), (120, 49626), (139, 49524), (151, 49482), (152, 49476), (158, 49455), (179, 49365), (184, 49347), (189, 49332), (213, 49272),

Gene: Horseradish_42 Start: 28614, Stop: 27796, Start Num: 38

Candidate Starts for Horseradish_42:

(Start: 34 @28632 has 3 MA's), (Start: 38 @28614 has 42 MA's), (Start: 40 @28608 has 3 MA's), (82, 28458), (83, 28455), (101, 28395), (116, 28317), (122, 28284), (126, 28266), (132, 28224), (133, 28221), (141, 28185), (144, 28176), (159, 28119), (166, 28080), (176, 28035), (179, 28023), (183, 28011), (184, 28005), (227, 27852),

Gene: HubbaBubba_60 Start: 46888, Stop: 46091, Start Num: 50

Candidate Starts for HubbaBubba_60:

(Start: 50 @46888 has 8 MA's), (72, 46813), (133, 46507), (139, 46477), (142, 46468), (145, 46459), (158, 46405), (168, 46360), (173, 46339), (176, 46327), (179, 46315), (184, 46297), (213, 46216), (232, 46138),

Gene: Huwbert_81 Start: 49790, Stop: 50599, Start Num: 45

Candidate Starts for Huwbert_81:

(Start: 45 @49790 has 3 MA's), (86, 49937), (94, 49967), (101, 49988), (122, 50099), (126, 50117), (132, 50159), (133, 50162), (141, 50198), (151, 50234), (159, 50264), (160, 50267), (179, 50360), (184, 50378),

Gene: IDyn_64 Start: 48323, Stop: 47526, Start Num: 50

Candidate Starts for IDyn_64:

(39, 48350), (Start: 50 @48323 has 8 MA's), (72, 48248), (110, 48074), (133, 47942), (139, 47912), (142, 47903), (145, 47894), (158, 47840), (168, 47795), (173, 47774), (176, 47762), (179, 47750), (184, 47732), (213, 47651), (232, 47573),

Gene: Indlulamithi_69 Start: 49597, Stop: 50433, Start Num: 52

Candidate Starts for Indlulamithi_69:

(Start: 52 @49597 has 20 MA's), (Start: 63 @49612 has 3 MA's), (118, 49894), (124, 49930), (126, 49942), (129, 49951), (130, 49954), (141, 50023), (142, 50026), (151, 50059), (152, 50065), (158, 50086), (159, 50089), (173, 50152), (178, 50173), (179, 50176), (184, 50194), (188, 50212), (208, 50281), (214, 50302), (219, 50329), (231, 50377), (236, 50398),

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

Candidate Starts for JDawG_44:

(1, 29225), (5, 29321), (6, 29360), (14, 29486), (15, 29522), (Start: 62 @29786 has 56 MA's), (72, 29840), (77, 29876), (84, 29903), (96, 29948), (97, 29951), (104, 29996), (132, 30152), (140, 30188), (143, 30197), (144, 30200), (175, 30329), (179, 30344), (216, 30449), (227, 30491),

Gene: JacoRen57_38 Start: 31703, Stop: 30873, Start Num: 33

Candidate Starts for JacoRen57_38:

(Start: 33 @31703 has 1 MA's), (74, 31568), (109, 31403), (122, 31340), (125, 31325), (140, 31244), (144, 31232), (172, 31112), (184, 31061), (189, 31040), (224, 30914), (228, 30902),

Gene: Jalebi_66 Start: 46242, Stop: 47312, Start Num: 57

Candidate Starts for Jalebi_66:

(Start: 57 @46242 has 47 MA's), (90, 46374), (101, 46422), (117, 46503), (119, 46515), (120, 46524), (121, 46533), (149, 46656), (153, 46677), (161, 46704), (179, 46785), (184, 46803), (189, 46824), (210, 46902), (229, 46986), (241, 47064), (249, 47151), (260, 47283),

Gene: Jamemuya19_66 Start: 44078, Stop: 45148, Start Num: 57

Candidate Starts for Jamemuya19_66:

(Start: 57 @44078 has 47 MA's), (78, 44174), (90, 44210), (101, 44258), (119, 44351), (120, 44360), (121, 44369), (149, 44492), (153, 44513), (161, 44540), (179, 44621), (184, 44639), (189, 44660), (210, 44738), (229, 44822), (260, 45119),

Gene: Jamzy_45 Start: 29543, Stop: 28737, Start Num: 37

Candidate Starts for Jamzy_45:

(22, 29627), (26, 29597), (27, 29591), (Start: 37 @29543 has 13 MA's), (Start: 38 @29540 has 42 MA's), (74, 29441), (101, 29330), (109, 29282), (119, 29237), (122, 29219), (125, 29204), (126, 29201), (133, 29156), (141, 29120), (144, 29111), (166, 29015), (172, 28991), (179, 28958), (183, 28946), (184, 28940), (189, 28919),

Gene: Jifall16_64 Start: 51698, Stop: 50877, Start Num: 52

Candidate Starts for Jifall16_64:

(Start: 52 @51698 has 20 MA's), (72, 51626), (116, 51404), (142, 51263), (145, 51254), (158, 51203), (165, 51167), (179, 51113), (184, 51095), (189, 51080), (224, 50957),

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

Candidate Starts for JingleBells_45:

(6, 29094), (7, 29100), (10, 29124), (14, 29220), (15, 29256), (Start: 62 @29520 has 56 MA's), (72, 29574), (77, 29610), (84, 29637), (96, 29682), (97, 29685), (104, 29730), (132, 29886), (140, 29922), (143, 29931), (144, 29934), (175, 30063), (179, 30078), (216, 30183), (227, 30225),

Gene: Kabluna_68 Start: 51031, Stop: 50168, Start Num: 52

Candidate Starts for Kabluna_68:

(28, 51109), (Start: 52 @51031 has 20 MA's), (91, 50869), (116, 50743), (142, 50602), (151, 50569), (158, 50542), (173, 50476), (179, 50452), (184, 50434), (205, 50380), (215, 50350), (223, 50305),

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

Candidate Starts for KandZ_58:

(35, 44543), (Start: 62 @44615 has 56 MA's), (71, 44660), (74, 44672), (76, 44690), (77, 44702), (84, 44726), (85, 44729), (117, 44882), (120, 44903), (122, 44912), (124, 44918), (140, 45008), (141, 45011), (144, 45020), (150, 45041), (176, 45152), (179, 45164), (184, 45182), (199, 45233), (203, 45242), (213, 45272), (214, 45275),

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

Candidate Starts for Karate_44:

(5, 29704), (6, 29743), (10, 29773), (15, 29905), (Start: 62 @30169 has 56 MA's), (72, 30223), (77, 30259), (84, 30286), (96, 30331), (97, 30334), (104, 30379), (132, 30535), (140, 30571), (143, 30580), (144, 30583), (175, 30712), (179, 30727), (216, 30832), (227, 30874),

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

Candidate Starts for Kate_46:

(6, 29750), (10, 29780), (15, 29912), (Start: 62 @30176 has 56 MA's), (72, 30230), (77, 30266), (84, 30293), (96, 30338), (97, 30341), (104, 30386), (132, 30542), (140, 30578), (143, 30587), (144, 30590), (175, 30719), (179, 30734), (216, 30839), (227, 30881),

Gene: KayGee_43 Start: 30579, Stop: 29773, Start Num: 38

Candidate Starts for KayGee_43:

(Start: 38 @30579 has 42 MA's), (Start: 40 @30573 has 3 MA's), (74, 30471), (82, 30417), (101, 30354), (106, 30318), (122, 30243), (125, 30228), (132, 30183), (133, 30180), (141, 30144), (144, 30135), (159, 30078), (169, 30030), (170, 30027), (179, 29985), (213, 29892), (227, 29823),

Gene: KidneyBean_65 Start: 51822, Stop: 51001, Start Num: 52

Candidate Starts for KidneyBean_65:

(Start: 52 @51822 has 20 MA's), (72, 51750), (116, 51528), (142, 51387), (145, 51378), (158, 51327), (165, 51291), (179, 51237), (184, 51219), (189, 51204), (224, 51081),

Gene: KimJongPhill_83 Start: 61930, Stop: 62745, Start Num: 40

Candidate Starts for KimJongPhill_83:

(Start: 40 @61930 has 3 MA's), (70, 62008), (85, 62086), (116, 62212), (118, 62218), (122, 62245), (126, 62263), (132, 62305), (145, 62356), (152, 62386), (159, 62410), (171, 62467), (182, 62515), (184, 62524), (209, 62620), (222, 62683),

Gene: Kimchi1738_53 Start: 45055, Stop: 44291, Start Num: 58

Candidate Starts for Kimchi1738_53:

(Start: 58 @45055 has 8 MA's), (104, 44836), (165, 44554), (179, 44500), (203, 44455), (223, 44371),

Gene: Konstantine_76 Start: 53396, Stop: 54475, Start Num: 53

Candidate Starts for Konstantine_76:

(Start: 53 @53396 has 9 MA's), (64, 53414), (72, 53450), (97, 53558), (105, 53606), (109, 53627), (111, 53633), (120, 53693), (121, 53702), (124, 53708), (144, 53810), (152, 53843), (156, 53858), (164, 53897), (174, 53936), (179, 53954), (184, 53972), (185, 53975), (187, 53984), (206, 54050), (213, 54074), (247, 54266), (257, 54413), (258, 54416), (261, 54455), (262, 54464),

Gene: Kors_49 Start: 31190, Stop: 32032, Start Num: 56

Candidate Starts for Kors_49:

(Start: 56 @31190 has 18 MA's), (74, 31253), (93, 31337), (96, 31349), (97, 31352), (127, 31514), (140, 31586), (157, 31649), (160, 31658), (175, 31727), (179, 31742), (227, 31889),

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

Candidate Starts for Krampus_45:

(6, 29750), (10, 29780), (15, 29912), (Start: 62 @30176 has 56 MA's), (72, 30230), (77, 30266), (84, 30293), (96, 30338), (97, 30341), (104, 30386), (132, 30542), (140, 30578), (143, 30587), (144, 30590), (175, 30719), (179, 30734), (216, 30839), (227, 30881),

Gene: Kurt_65 Start: 52057, Stop: 51236, Start Num: 52

Candidate Starts for Kurt_65:

(42, 52084), (Start: 52 @52057 has 20 MA's), (72, 51985), (116, 51763), (142, 51622), (145, 51613), (158, 51562), (165, 51526), (179, 51472), (184, 51454), (189, 51439), (224, 51316),

Gene: Labelle_84 Start: 54626, Stop: 55684, Start Num: 57

Candidate Starts for Labelle_84:

(Start: 57 @54626 has 47 MA's), (73, 54683), (74, 54686), (77, 54716), (93, 54773), (97, 54788), (120, 54917), (125, 54941), (133, 54995), (138, 55019), (173, 55163), (174, 55169), (176, 55175), (178, 55184), (179, 55187), (184, 55205), (190, 55232), (206, 55292), (216, 55340), (229, 55388), (233, 55406), (243, 55466), (244, 55487), (252, 55595), (253, 55610),

Gene: Lambo_65 Start: 44896, Stop: 45987, Start Num: 57

Candidate Starts for Lambo_65:

(Start: 57 @44896 has 47 MA's), (90, 45028), (101, 45076), (119, 45169), (120, 45178), (121, 45187), (149, 45310), (153, 45331), (161, 45358), (179, 45439), (184, 45457), (189, 45478), (210, 45556), (229, 45640), (249, 45805), (250, 45814), (260, 45958),

Gene: Lauer_38 Start: 31388, Stop: 30582, Start Num: 38

Candidate Starts for Lauer_38:

(Start: 38 @31388 has 42 MA's), (Start: 40 @31382 has 3 MA's), (74, 31280), (82, 31226), (101, 31163), (106, 31127), (122, 31052), (125, 31037), (132, 30992), (133, 30989), (141, 30953), (144, 30944), (159, 30887), (169, 30839), (170, 30836), (179, 30794), (213, 30701), (227, 30632),

Gene: LavAbarElk_67 Start: 44636, Stop: 45706, Start Num: 57

Candidate Starts for LavAbarElk_67:

(Start: 57 @44636 has 47 MA's), (90, 44768), (101, 44816), (117, 44897), (119, 44909), (120, 44918), (121, 44927), (149, 45050), (153, 45071), (161, 45098), (179, 45179), (184, 45197), (189, 45218), (210, 45296), (229, 45380), (249, 45545), (260, 45677),

Gene: Leopard_75 Start: 52296, Stop: 53216, Start Num: 54

Candidate Starts for Leopard_75:

(Start: 54 @52296 has 2 MA's), (Start: 63 @52311 has 3 MA's), (76, 52383), (77, 52395), (84, 52419), (85, 52422), (93, 52452), (105, 52515), (118, 52572), (120, 52590), (122, 52599), (124, 52605), (131, 52635), (164, 52794), (167, 52803), (168, 52806), (179, 52851), (184, 52869), (199, 52917), (215, 52965), (222, 53004), (240, 53109),

Gene: Lila22_68 Start: 45848, Stop: 46939, Start Num: 57

Candidate Starts for Lila22_68:

(Start: 57 @45848 has 47 MA's), (90, 45980), (101, 46028), (119, 46121), (120, 46130), (121, 46139), (149, 46262), (153, 46283), (161, 46310), (179, 46391), (184, 46409), (189, 46430), (210, 46508), (229, 46592), (249, 46757), (250, 46766), (260, 46910),

Gene: LilyPad_58 Start: 43001, Stop: 43912, Start Num: 56

Candidate Starts for LilyPad_58:

(Start: 56 @43001 has 18 MA's), (73, 43058), (74, 43061), (77, 43091), (113, 43241), (114, 43250), (120, 43295), (124, 43310), (126, 43322), (130, 43334), (135, 43373), (137, 43388), (142, 43406), (147, 43421), (173, 43532), (174, 43538), (179, 43556), (186, 43580), (187, 43586), (195, 43616),

(217, 43709), (223, 43733), (248, 43883),

Gene: LittleFella_63 Start: 44521, Stop: 45468, Start Num: 56

Candidate Starts for LittleFella_63:

(Start: 56 @44521 has 18 MA's), (59, 44527), (84, 44644), (120, 44824), (124, 44839), (126, 44851), (157, 44992), (164, 45028), (179, 45085),

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

Candidate Starts for Lizz_64:

(Start: 60 @46003 has 9 MA's), (72, 45949), (75, 45940), (77, 45913), (84, 45889), (97, 45841), (118, 45736), (135, 45637), (136, 45631), (146, 45592), (151, 45571), (168, 45499), (179, 45454), (181, 45448), (185, 45430), (207, 45394), (221, 45331),

Gene: Lollipop1437_69 Start: 52704, Stop: 51925, Start Num: 43

Candidate Starts for Lollipop1437_69:

(Start: 43 @52704 has 11 MA's), (72, 52620), (142, 52272), (158, 52212), (165, 52176), (179, 52122), (184, 52104), (197, 52071), (200, 52062), (222, 51987), (224, 51975),

Gene: LongHai_43 Start: 31234, Stop: 30389, Start Num: 30

Candidate Starts for LongHai_43:

(Start: 30 @31234 has 2 MA's), (Start: 38 @31210 has 42 MA's), (67, 31117), (79, 31057), (101, 30979), (104, 30952), (122, 30868), (144, 30760), (151, 30733), (173, 30631), (183, 30595), (189, 30568), (212, 30505), (228, 30430), (231, 30421),

Gene: LordBart_49 Start: 31099, Stop: 31941, Start Num: 56

Candidate Starts for LordBart_49:

(Start: 56 @31099 has 18 MA's), (74, 31162), (93, 31246), (96, 31258), (97, 31261), (127, 31423), (132, 31459), (140, 31495), (157, 31558), (160, 31567), (175, 31636), (179, 31651), (227, 31798),

Gene: LuckyLeo_64 Start: 44646, Stop: 45731, Start Num: 57

Candidate Starts for LuckyLeo_64:

(Start: 57 @44646 has 47 MA's), (77, 44739), (90, 44778), (101, 44826), (120, 44928), (121, 44937), (149, 45060), (153, 45081), (157, 45096), (161, 45108), (179, 45189), (184, 45207), (189, 45228), (194, 45249), (210, 45306), (229, 45390), (259, 45690),

Gene: MAnor_43 Start: 30921, Stop: 30115, Start Num: 38

Candidate Starts for MAnor_43:

(Start: 38 @30921 has 42 MA's), (Start: 40 @30915 has 3 MA's), (74, 30813), (82, 30759), (101, 30696), (122, 30585), (125, 30570), (132, 30525), (133, 30522), (141, 30486), (144, 30477), (159, 30420), (169, 30372), (170, 30369), (179, 30327), (213, 30234), (227, 30165),

Gene: MScarn_43 Start: 28754, Stop: 27936, Start Num: 38

Candidate Starts for MScarn_43:

(Start: 34 @28772 has 3 MA's), (Start: 38 @28754 has 42 MA's), (Start: 40 @28748 has 3 MA's), (82, 28598), (83, 28595), (101, 28535), (116, 28457), (122, 28424), (126, 28406), (132, 28364), (133, 28361), (141, 28325), (144, 28316), (159, 28259), (166, 28220), (176, 28175), (183, 28151), (184, 28145), (227, 27992),

Gene: MaVan_38 Start: 28664, Stop: 27852, Start Num: 37

Candidate Starts for MaVan_38:

(21, 28736), (Start: 37 @28664 has 13 MA's), (101, 28448), (106, 28412), (116, 28370), (119, 28355), (122, 28337), (125, 28322), (126, 28319), (132, 28277), (144, 28229), (160, 28169), (166, 28136), (178, 28082), (183, 28067), (217, 27950),

Gene: MacGully_73 Start: 51597, Stop: 50779, Start Num: 57

Candidate Starts for MacGully_73:

(19, 51750), (32, 51672), (Start: 57 @51597 has 47 MA's), (Start: 60 @51591 has 9 MA's), (72, 51537), (100, 51411), (120, 51294), (126, 51267), (130, 51255), (133, 51216), (140, 51183), (155, 51126), (185, 51003), (202, 50958), (238, 50805),

Gene: Maco6_40 Start: 30176, Stop: 29331, Start Num: 30

Candidate Starts for Maco6_40:

(Start: 30 @30176 has 2 MA's), (Start: 38 @30152 has 42 MA's), (67, 30059), (79, 29999), (101, 29921), (104, 29894), (116, 29843), (122, 29810), (140, 29714), (144, 29702), (151, 29675), (173, 29573), (183, 29537), (189, 29510), (212, 29447), (228, 29372), (231, 29363),

Gene: Madi_56 Start: 41882, Stop: 42811, Start Num: 56

Candidate Starts for Madi_56:

(Start: 56 @41882 has 18 MA's), (73, 41939), (77, 41972), (113, 42122), (114, 42131), (117, 42155), (120, 42176), (124, 42191), (126, 42203), (130, 42215), (135, 42254), (137, 42269), (147, 42302), (173, 42413), (174, 42419), (179, 42437), (186, 42461), (187, 42467), (195, 42497), (199, 42521), (223, 42614), (248, 42782),

Gene: Madruga_83 Start: 54580, Stop: 55638, Start Num: 57

Candidate Starts for Madruga_83:

(Start: 57 @54580 has 47 MA's), (73, 54637), (74, 54640), (77, 54670), (93, 54727), (97, 54742), (120, 54871), (125, 54895), (133, 54949), (138, 54973), (173, 55117), (174, 55123), (176, 55129), (178, 55138), (179, 55141), (184, 55159), (190, 55186), (206, 55246), (216, 55294), (229, 55342), (233, 55360), (243, 55420), (244, 55441), (252, 55549), (253, 55564),

Gene: Margaret_46 Start: 30292, Stop: 29483, Start Num: 37

Candidate Starts for Margaret_46:

(Start: 37 @30292 has 13 MA's), (Start: 38 @30289 has 42 MA's), (74, 30187), (82, 30133), (101, 30076), (106, 30040), (119, 29983), (122, 29965), (125, 29950), (126, 29947), (133, 29902), (141, 29866), (144, 29857), (166, 29761), (179, 29704), (203, 29638), (213, 29605),

Gene: Marietta_66 Start: 48435, Stop: 47638, Start Num: 50

Candidate Starts for Marietta_66:

(Start: 50 @48435 has 8 MA's), (72, 48360), (110, 48186), (133, 48054), (139, 48024), (142, 48015), (145, 48006), (151, 47979), (158, 47952), (168, 47907), (176, 47874), (179, 47862), (184, 47844), (213, 47763), (232, 47685),

Gene: Maselop_64 Start: 48423, Stop: 47572, Start Num: 57

Candidate Starts for Maselop_64:

(Start: 57 @48423 has 47 MA's), (72, 48363), (100, 48243), (103, 48231), (120, 48129), (122, 48120), (126, 48102), (130, 48090), (140, 48018), (179, 47862), (184, 47844), (185, 47838), (220, 47715), (230, 47679), (235, 47658),

Gene: Mayweather_45 Start: 31200, Stop: 30394, Start Num: 38

Candidate Starts for Mayweather_45:

(Start: 38 @31200 has 42 MA's), (Start: 40 @31194 has 3 MA's), (74, 31092), (82, 31038), (101, 30975), (122, 30864), (125, 30849), (132, 30804), (133, 30801), (141, 30765), (144, 30756), (159, 30699), (169, 30651), (170, 30648), (179, 30606), (213, 30513), (227, 30444),

Gene: McDazzle_43 Start: 30530, Stop: 29724, Start Num: 38

Candidate Starts for McDazzle_43:

(Start: 38 @30530 has 42 MA's), (74, 30422), (82, 30368), (101, 30305), (122, 30194), (125, 30179), (132, 30134), (133, 30131), (141, 30095), (144, 30086), (159, 30029), (169, 29981), (170, 29978), (179, 29936), (213, 29843), (227, 29774),

Gene: Megatron06_73 Start: 53142, Stop: 54218, Start Num: 53

Candidate Starts for Megatron06_73:

(Start: 53 @53142 has 9 MA's), (55, 53148), (64, 53160), (72, 53196), (97, 53304), (105, 53352), (112, 53382), (120, 53439), (121, 53448), (124, 53454), (144, 53556), (152, 53589), (156, 53604), (164, 53643), (174, 53682), (179, 53700), (184, 53718), (185, 53721), (187, 53730), (206, 53796), (213, 53820), (247, 54009), (257, 54156), (258, 54159), (261, 54198), (262, 54207),

Gene: MerCougar_67 Start: 52388, Stop: 51525, Start Num: 52

Candidate Starts for MerCougar_67:

(Start: 52 @52388 has 20 MA's), (116, 52100), (126, 52049), (142, 51959), (153, 51917), (158, 51899), (165, 51863), (173, 51833), (179, 51809), (184, 51791),

Gene: Mima20_67 Start: 45405, Stop: 46475, Start Num: 57

Candidate Starts for Mima20_67:

(Start: 57 @45405 has 47 MA's), (90, 45537), (101, 45585), (117, 45666), (119, 45678), (120, 45687), (121, 45696), (149, 45819), (153, 45840), (161, 45867), (179, 45948), (184, 45966), (189, 45987), (210, 46065), (229, 46149), (249, 46314), (260, 46446),

Gene: MoiGyank_70 Start: 46170, Stop: 47240, Start Num: 57

Candidate Starts for MoiGyank_70:

(Start: 57 @46170 has 47 MA's), (90, 46302), (101, 46350), (117, 46431), (119, 46443), (120, 46452), (121, 46461), (149, 46584), (153, 46605), (161, 46632), (179, 46713), (184, 46731), (189, 46752), (210, 46830), (229, 46914), (241, 46992), (249, 47079), (260, 47211),

Gene: MontyDev_72 Start: 52628, Stop: 53458, Start Num: 51

Candidate Starts for MontyDev_72:

(Start: 51 @52628 has 9 MA's), (66, 52673), (73, 52703), (77, 52736), (84, 52760), (97, 52808), (102, 52829), (117, 52922), (121, 52952), (123, 52955), (126, 52967), (144, 53051), (154, 53081), (174, 53165), (176, 53171), (179, 53183), (184, 53201), (191, 53228), (192, 53231), (218, 53327), (226, 53348), (234, 53375),

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

Candidate Starts for Mopey_60:

(35, 44421), (Start: 62 @44493 has 56 MA's), (71, 44538), (74, 44550), (76, 44568), (77, 44580), (84, 44604), (85, 44607), (117, 44760), (120, 44781), (122, 44790), (124, 44796), (140, 44886), (141, 44889), (144, 44898), (150, 44919), (176, 45030), (179, 45042), (184, 45060), (199, 45111), (203, 45120), (213, 45150), (214, 45153),

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

Candidate Starts for MortySmith_43:

(6, 28778), (10, 28808), (11, 28835), (14, 28904), (15, 28940), (Start: 62 @29204 has 56 MA's), (72, 29258), (77, 29294), (84, 29321), (96, 29366), (97, 29369), (104, 29414), (132, 29570), (140, 29606), (143, 29615), (144, 29618), (175, 29747), (179, 29762), (216, 29867), (227, 29909),

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

Candidate Starts for MrMiyagi_77:

(Start: 36 @49209 has 2 MA's), (85, 49395), (96, 49437), (97, 49440), (112, 49518), (115, 49548), (124, 49590), (130, 49614), (139, 49677), (142, 49686), (148, 49704), (152, 49725), (177, 49827), (179, 49836), (185, 49860), (195, 49893), (201, 49920), (211, 49950), (214, 49959), (217, 49983),

(231, 50034),

Gene: Muddy_42 Start: 31408, Stop: 30563, Start Num: 30

Candidate Starts for Muddy_42:

(Start: 30 @31408 has 2 MA's), (Start: 38 @31384 has 42 MA's), (67, 31291), (79, 31231), (101, 31153), (104, 31126), (122, 31042), (144, 30934), (151, 30907), (173, 30805), (183, 30769), (189, 30742), (212, 30679), (228, 30604), (231, 30595),

Gene: MunkgeeRoachy_38 Start: 28070, Stop: 27252, Start Num: 38

Candidate Starts for MunkgeeRoachy_38:

(Start: 38 @28070 has 42 MA's), (82, 27914), (83, 27911), (95, 27863), (101, 27851), (116, 27773), (122, 27740), (125, 27725), (126, 27722), (132, 27680), (141, 27641), (144, 27632), (159, 27575), (172, 27512), (184, 27461), (217, 27347),

Gene: NadineRae_65 Start: 48044, Stop: 47247, Start Num: 50

Candidate Starts for NadineRae_65:

(Start: 50 @48044 has 8 MA's), (72, 47969), (133, 47663), (139, 47633), (142, 47624), (145, 47615), (158, 47561), (168, 47516), (173, 47495), (176, 47483), (179, 47471), (184, 47453), (213, 47372), (232, 47294),

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

Candidate Starts for NarutoRun_45:

(6, 29718), (10, 29748), (15, 29880), (Start: 62 @30144 has 56 MA's), (72, 30198), (77, 30234), (84, 30261), (96, 30306), (97, 30309), (104, 30354), (132, 30510), (140, 30546), (143, 30555), (144, 30558), (175, 30687), (179, 30702), (216, 30807), (227, 30849),

Gene: NatB6_65 Start: 51126, Stop: 50305, Start Num: 52

Candidate Starts for NatB6_65:

(42, 51153), (Start: 52 @51126 has 20 MA's), (72, 51054), (116, 50832), (142, 50691), (145, 50682), (158, 50631), (165, 50595), (179, 50541), (184, 50523), (189, 50508), (224, 50385),

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

Candidate Starts for Neptune_45:

(6, 29718), (10, 29748), (15, 29880), (Start: 62 @30144 has 56 MA's), (72, 30198), (77, 30234), (84, 30261), (96, 30306), (97, 30309), (104, 30354), (132, 30510), (140, 30546), (143, 30555), (144, 30558), (175, 30687), (179, 30702), (216, 30807), (227, 30849),

Gene: Nibbles_37 Start: 28351, Stop: 27539, Start Num: 37

Candidate Starts for Nibbles_37:

(21, 28423), (24, 28399), (Start: 37 @28351 has 13 MA's), (101, 28135), (106, 28099), (116, 28057), (119, 28042), (122, 28024), (125, 28009), (126, 28006), (132, 27964), (144, 27916), (160, 27856), (166, 27823), (178, 27769), (183, 27754), (217, 27637),

Gene: Nilo_72 Start: 52985, Stop: 53815, Start Num: 51

Candidate Starts for Nilo_72:

(Start: 51 @52985 has 9 MA's), (66, 53030), (73, 53060), (77, 53093), (84, 53117), (97, 53165), (102, 53186), (117, 53279), (121, 53309), (123, 53312), (126, 53324), (144, 53408), (154, 53438), (174, 53522), (176, 53528), (179, 53540), (184, 53558), (191, 53585), (192, 53588), (218, 53684), (226, 53705), (234, 53732),

Gene: Nina_39 Start: 28732, Stop: 27914, Start Num: 38

Candidate Starts for Nina_39:

(Start: 38 @28732 has 42 MA's), (82, 28576), (83, 28573), (95, 28525), (101, 28513), (116, 28435), (122, 28402), (125, 28387), (126, 28384), (131, 28360), (132, 28342), (141, 28303), (144, 28294), (159, 28237), (172, 28174), (184, 28123), (217, 28009), (227, 27970),

Gene: NoShow_50 Start: 34311, Stop: 33472, Start Num: 31

Candidate Starts for NoShow_50:

(Start: 31 @34311 has 1 MA's), (79, 34125), (86, 34098), (116, 33969), (122, 33936), (144, 33828), (172, 33708), (184, 33657), (209, 33585), (227, 33501),

Gene: Nodigi_47 Start: 31327, Stop: 30521, Start Num: 38

Candidate Starts for Nodigi_47:

(27, 31369), (Start: 37 @31330 has 13 MA's), (Start: 38 @31327 has 42 MA's), (74, 31225), (82, 31171), (83, 31168), (101, 31114), (106, 31078), (119, 31021), (122, 31003), (126, 30985), (133, 30940), (144, 30895), (166, 30799), (172, 30775), (179, 30742), (183, 30730), (203, 30676), (213, 30643),

Gene: NorManre_71 Start: 46296, Stop: 47387, Start Num: 57

Candidate Starts for NorManre_71:

(Start: 57 @46296 has 47 MA's), (90, 46428), (101, 46476), (119, 46569), (120, 46578), (121, 46587), (149, 46710), (153, 46731), (161, 46758), (179, 46839), (184, 46857), (189, 46878), (210, 46956), (229, 47040), (249, 47205), (250, 47214), (260, 47358),

Gene: NosilaM_67 Start: 51702, Stop: 50839, Start Num: 52

Candidate Starts for NosilaM_67:

(Start: 52 @51702 has 20 MA's), (91, 51540), (116, 51414), (142, 51273), (151, 51240), (158, 51213), (160, 51207), (173, 51147), (179, 51123), (184, 51105), (205, 51051), (215, 51021), (223, 50976),

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

Candidate Starts for Nova_58:

(35, 44873), (Start: 62 @44945 has 56 MA's), (71, 44990), (74, 45002), (76, 45020), (77, 45032), (84, 45056), (85, 45059), (117, 45212), (120, 45233), (122, 45242), (124, 45248), (140, 45338), (141, 45341), (144, 45350), (150, 45371), (176, 45482), (179, 45494), (184, 45512), (199, 45563), (203, 45572), (213, 45602), (214, 45605),

Gene: NovaSharks_69 Start: 44064, Stop: 45134, Start Num: 57

Candidate Starts for NovaSharks_69:

(Start: 57 @44064 has 47 MA's), (78, 44160), (90, 44196), (101, 44244), (119, 44337), (120, 44346), (121, 44355), (149, 44478), (153, 44499), (161, 44526), (179, 44607), (184, 44625), (189, 44646), (210, 44724), (229, 44808), (260, 45105),

Gene: NovumRegina_65 Start: 51435, Stop: 50614, Start Num: 52

Candidate Starts for NovumRegina_65:

(42, 51462), (Start: 52 @51435 has 20 MA's), (72, 51363), (116, 51141), (142, 51000), (145, 50991), (158, 50940), (165, 50904), (179, 50850), (184, 50832), (189, 50817), (224, 50694),

Gene: Oaker_72 Start: 53171, Stop: 54247, Start Num: 53

Candidate Starts for Oaker_72:

(Start: 53 @53171 has 9 MA's), (55, 53177), (72, 53225), (97, 53333), (105, 53381), (112, 53411), (120, 53468), (121, 53477), (124, 53483), (144, 53585), (152, 53618), (156, 53633), (164, 53672), (174, 53711), (179, 53729), (184, 53747), (185, 53750), (187, 53759), (206, 53825), (213, 53849), (247, 54038), (257, 54185), (258, 54188), (261, 54227), (262, 54236),

Gene: OhDear_45 Start: 30142, Stop: 30990, Start Num: 62

Candidate Starts for OhDear_45:

(6, 29716), (10, 29746), (15, 29878), (Start: 62 @30142 has 56 MA's), (72, 30196), (77, 30232), (84, 30259), (96, 30304), (97, 30307), (104, 30352), (132, 30508), (140, 30544), (143, 30553), (144, 30556), (175, 30685), (179, 30700), (216, 30805), (227, 30847),

Gene: Onyinye_76 Start: 52178, Stop: 53083, Start Num: 63

Candidate Starts for Onyinye_76:

(Start: 54 @52163 has 2 MA's), (Start: 63 @52178 has 3 MA's), (76, 52250), (77, 52262), (84, 52286), (85, 52289), (93, 52319), (105, 52382), (118, 52439), (120, 52457), (122, 52466), (124, 52472), (131, 52502), (164, 52661), (167, 52670), (168, 52673), (179, 52718), (184, 52736), (199, 52784), (215, 52832), (222, 52871), (240, 52976), (245, 53024),

Gene: Orla_47 Start: 31300, Stop: 30494, Start Num: 38

Candidate Starts for Orla_47:

(27, 31342), (Start: 37 @31303 has 13 MA's), (Start: 38 @31300 has 42 MA's), (74, 31198), (82, 31144), (83, 31141), (101, 31087), (106, 31051), (119, 30994), (122, 30976), (126, 30958), (141, 30877), (144, 30868), (166, 30772), (172, 30748), (179, 30715), (183, 30703), (203, 30649), (213, 30616),

Gene: OtterstedtS21_67 Start: 45230, Stop: 46321, Start Num: 57

Candidate Starts for OtterstedtS21_67:

(Start: 57 @45230 has 47 MA's), (90, 45362), (101, 45410), (117, 45491), (119, 45503), (120, 45512), (121, 45521), (149, 45644), (153, 45665), (161, 45692), (179, 45773), (184, 45791), (189, 45812), (210, 45890), (229, 45974), (249, 46139), (250, 46148), (260, 46292),

Gene: Outis_66 Start: 51894, Stop: 51040, Start Num: 56

Candidate Starts for Outis_66:

(Start: 56 @51894 has 18 MA's), (116, 51615), (126, 51564), (142, 51474), (153, 51432), (158, 51414), (165, 51378), (173, 51348), (179, 51324), (184, 51306),

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

Candidate Starts for OverHedge_45:

(6, 29708), (10, 29738), (15, 29870), (Start: 62 @30134 has 56 MA's), (72, 30188), (77, 30224), (84, 30251), (96, 30296), (97, 30299), (104, 30344), (132, 30500), (140, 30536), (143, 30545), (144, 30548), (175, 30677), (179, 30692), (216, 30797), (227, 30839),

Gene: P1201_70 Start: 52915, Stop: 52136, Start Num: 60

Candidate Starts for P1201_70:

(Start: 60 @52915 has 9 MA's), (72, 52858), (73, 52855), (107, 52684), (120, 52621), (156, 52456), (168, 52405), (179, 52360), (181, 52354), (185, 52336),

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

Candidate Starts for PBI1_56:

(35, 44348), (Start: 62 @44420 has 56 MA's), (71, 44465), (74, 44477), (76, 44495), (77, 44507), (84, 44531), (85, 44534), (117, 44687), (120, 44708), (122, 44717), (124, 44723), (140, 44813), (141, 44816), (144, 44825), (150, 44846), (176, 44957), (179, 44969), (184, 44987), (199, 45038), (203, 45047), (213, 45077), (214, 45080),

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

Candidate Starts for PHTowN_64:

(Start: 60 @46001 has 9 MA's), (72, 45947), (75, 45938), (77, 45911), (84, 45887), (97, 45839), (118, 45734), (135, 45635), (136, 45629), (146, 45590), (151, 45569), (168, 45497), (179, 45452), (181, 45446), (185, 45428), (207, 45392), (221, 45329),

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

Candidate Starts for PLOT_59:

(35, 44400), (Start: 62 @44472 has 56 MA's), (71, 44517), (74, 44529), (76, 44547), (77, 44559), (84, 44583), (85, 44586), (117, 44739), (120, 44760), (122, 44769), (124, 44775), (140, 44865), (141, 44868), (144, 44877), (150, 44898), (176, 45009), (179, 45021), (184, 45039), (199, 45090), (203, 45099), (213, 45129), (214, 45132),

Gene: Papyrus_70 Start: 52595, Stop: 53425, Start Num: 51

Candidate Starts for Papyrus_70:

(Start: 51 @52595 has 9 MA's), (66, 52640), (73, 52670), (77, 52703), (84, 52727), (97, 52775), (102, 52796), (117, 52889), (121, 52919), (123, 52922), (126, 52934), (144, 53018), (154, 53048), (174, 53132), (176, 53138), (179, 53150), (184, 53168), (191, 53195), (192, 53198), (218, 53294), (226, 53315), (234, 53342),

Gene: ParvusTarda_66 Start: 44602, Stop: 45693, Start Num: 57

Candidate Starts for ParvusTarda_66:

(Start: 57 @44602 has 47 MA's), (90, 44734), (101, 44782), (119, 44875), (120, 44884), (121, 44893), (149, 45016), (153, 45037), (161, 45064), (179, 45145), (184, 45163), (189, 45184), (210, 45262), (229, 45346), (249, 45511), (250, 45520), (260, 45664),

Gene: Patience_85 Start: 55493, Stop: 56551, Start Num: 57

Candidate Starts for Patience_85:

(Start: 57 @55493 has 47 MA's), (73, 55550), (74, 55553), (77, 55583), (93, 55640), (97, 55655), (120, 55784), (125, 55808), (133, 55862), (138, 55886), (173, 56030), (174, 56036), (176, 56042), (178, 56051), (179, 56054), (184, 56072), (190, 56099), (206, 56159), (216, 56207), (229, 56255), (233, 56273), (243, 56333), (244, 56354), (252, 56462), (253, 56477),

Gene: Patio_67 Start: 51761, Stop: 50982, Start Num: 43

Candidate Starts for Patio_67:

(Start: 43 @51761 has 11 MA's), (72, 51677), (142, 51329), (158, 51269), (165, 51233), (179, 51179), (184, 51161), (197, 51128), (200, 51119), (222, 51044), (224, 51032),

Gene: Patos_71 Start: 46295, Stop: 47386, Start Num: 57

Candidate Starts for Patos_71:

(Start: 57 @46295 has 47 MA's), (90, 46427), (101, 46475), (119, 46568), (120, 46577), (121, 46586), (149, 46709), (153, 46730), (161, 46757), (179, 46838), (184, 46856), (189, 46877), (210, 46955), (229, 47039), (249, 47204), (250, 47213), (260, 47357),

Gene: Pemberton_68 Start: 48797, Stop: 48000, Start Num: 50

Candidate Starts for Pemberton_68:

(23, 48896), (39, 48824), (Start: 50 @48797 has 8 MA's), (72, 48722), (110, 48548), (133, 48416), (139, 48386), (142, 48377), (145, 48368), (151, 48341), (158, 48314), (168, 48269), (176, 48236), (179, 48224), (184, 48206), (213, 48125), (232, 48047),

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

Candidate Starts for Penelope2018_59:

(35, 44418), (Start: 62 @44490 has 56 MA's), (71, 44535), (74, 44547), (76, 44565), (77, 44577), (84, 44601), (85, 44604), (117, 44757), (120, 44778), (122, 44787), (124, 44793), (140, 44883), (141, 44886), (144, 44895), (150, 44916), (176, 45027), (179, 45039), (184, 45057), (199, 45108), (203, 45117), (213, 45147), (214, 45150),

Gene: PeteyPab_53 Start: 45339, Stop: 44575, Start Num: 58

Candidate Starts for PeteyPab_53:

(Start: 58 @45339 has 8 MA's), (104, 45120), (120, 45045), (165, 44838), (179, 44784), (203, 44739), (223, 44655),

Gene: Phalaborwa_62 Start: 44931, Stop: 45791, Start Num: 62

Candidate Starts for Phalaborwa_62:

(35, 44859), (Start: 62 @44931 has 56 MA's), (74, 44988), (76, 45006), (77, 45018), (84, 45042), (85, 45045), (117, 45198), (120, 45219), (122, 45228), (124, 45234), (140, 45324), (141, 45327), (144, 45336), (150, 45357), (176, 45468), (179, 45480), (184, 45498), (199, 45549), (203, 45558), (214, 45591),

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

Candidate Starts for Pharpay_45:

(6, 29763), (10, 29793), (15, 29925), (Start: 62 @30189 has 56 MA's), (72, 30243), (77, 30279), (84, 30306), (96, 30351), (97, 30354), (104, 30399), (132, 30555), (140, 30591), (143, 30600), (144, 30603), (175, 30732), (179, 30747), (216, 30852), (227, 30894),

Gene: Phomeo_64 Start: 51694, Stop: 50873, Start Num: 52

Candidate Starts for Phomeo_64:

(Start: 52 @51694 has 20 MA's), (72, 51622), (116, 51400), (142, 51259), (145, 51250), (158, 51199), (165, 51163), (179, 51109), (184, 51091), (189, 51076), (224, 50953),

Gene: Phreeze_71 Start: 52138, Stop: 53217, Start Num: 53

Candidate Starts for Phreeze_71:

(Start: 53 @52138 has 9 MA's), (55, 52144), (72, 52192), (97, 52300), (105, 52348), (112, 52378), (120, 52435), (121, 52444), (124, 52450), (144, 52552), (152, 52585), (156, 52600), (164, 52639), (174, 52678), (179, 52696), (184, 52714), (185, 52717), (187, 52726), (206, 52792), (213, 52816), (247, 53008), (257, 53155), (258, 53158), (261, 53197), (262, 53206),

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

Candidate Starts for PhunaPhoke_45:

(6, 29736), (10, 29766), (15, 29898), (Start: 62 @30162 has 56 MA's), (72, 30216), (77, 30252), (84, 30279), (96, 30324), (97, 30327), (104, 30372), (132, 30528), (140, 30564), (143, 30573), (144, 30576), (175, 30705), (179, 30720), (216, 30825), (227, 30867),

Gene: Pleakley_74 Start: 51254, Stop: 50463, Start Num: 43

Candidate Starts for Pleakley_74:

(Start: 43 @51254 has 11 MA's), (72, 51158), (120, 50924), (142, 50813), (145, 50804), (150, 50786), (152, 50774), (158, 50753), (179, 50663), (184, 50645), (189, 50630), (213, 50570),

Gene: Polyuyki_64 Start: 48412, Stop: 47561, Start Num: 57

Candidate Starts for Polyuyki_64:

(Start: 57 @48412 has 47 MA's), (72, 48352), (100, 48232), (103, 48220), (120, 48118), (122, 48109), (126, 48091), (130, 48079), (140, 48007), (179, 47851), (184, 47833), (185, 47827), (220, 47704), (230, 47668), (235, 47647),

Gene: Pons_43 Start: 30551, Stop: 29745, Start Num: 38

Candidate Starts for Pons_43:

(Start: 38 @30551 has 42 MA's), (Start: 40 @30545 has 3 MA's), (74, 30443), (82, 30389), (101, 30326), (106, 30290), (122, 30215), (125, 30200), (132, 30155), (133, 30152), (141, 30116), (144, 30107), (159, 30050), (169, 30002), (170, 29999), (179, 29957), (213, 29864), (227, 29795),

Gene: PotPie_42 Start: 31482, Stop: 30676, Start Num: 38

Candidate Starts for PotPie_42:

(Start: 38 @31482 has 42 MA's), (Start: 40 @31476 has 3 MA's), (74, 31374), (82, 31320), (101, 31257), (122, 31146), (125, 31131), (132, 31086), (133, 31083), (141, 31047), (144, 31038), (159, 30981), (169, 30933), (170, 30930), (179, 30888), (213, 30795), (227, 30726),

Gene: PotatoChip_54 Start: 45341, Stop: 44577, Start Num: 58

Candidate Starts for PotatoChip_54:

(Start: 58 @45341 has 8 MA's), (104, 45122), (120, 45047), (165, 44840), (179, 44786), (203, 44741), (223, 44657),

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

Candidate Starts for Potty_45:

(6, 29741), (10, 29771), (15, 29903), (Start: 62 @30167 has 56 MA's), (72, 30221), (77, 30257), (84, 30284), (96, 30329), (97, 30332), (104, 30377), (132, 30533), (140, 30569), (143, 30578), (144, 30581), (175, 30710), (179, 30725), (216, 30830), (227, 30872),

Gene: Poultruss_44 Start: 30482, Stop: 31330, Start Num: 62

Candidate Starts for Poultruss_44:

(1, 29921), (5, 30017), (6, 30056), (10, 30086), (14, 30182), (15, 30218), (Start: 62 @30482 has 56 MA's), (72, 30536), (77, 30572), (84, 30599), (96, 30644), (97, 30647), (104, 30692), (132, 30848), (140, 30884), (143, 30893), (144, 30896), (175, 31025), (179, 31040), (216, 31145), (227, 31187),

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

Candidate Starts for Prager_59:

(35, 44437), (Start: 62 @44509 has 56 MA's), (71, 44554), (74, 44566), (76, 44584), (77, 44596), (84, 44620), (85, 44623), (117, 44776), (120, 44797), (122, 44806), (124, 44812), (140, 44902), (141, 44905), (144, 44914), (150, 44935), (176, 45046), (179, 45058), (184, 45076), (199, 45127), (203, 45136), (213, 45166), (214, 45169),

Gene: Predator_71 Start: 51699, Stop: 52709, Start Num: 53

Candidate Starts for Predator_71:

(Start: 53 @51699 has 9 MA's), (55, 51705), (72, 51753), (74, 51759), (97, 51861), (105, 51909), (120, 51996), (121, 52005), (124, 52011), (129, 52032), (140, 52101), (144, 52113), (151, 52140), (152, 52146), (156, 52161), (164, 52200), (174, 52239), (179, 52257), (184, 52275), (185, 52278), (202, 52350), (206, 52362), (255, 52683),

Gene: PsychoKiller_39 Start: 28608, Stop: 27790, Start Num: 38

Candidate Starts for PsychoKiller_39:

(Start: 38 @28608 has 42 MA's), (82, 28452), (83, 28449), (95, 28401), (101, 28389), (116, 28311), (122, 28278), (125, 28263), (126, 28260), (132, 28218), (141, 28179), (144, 28170), (159, 28113), (172, 28050), (184, 27999), (217, 27885), (227, 27846),

Gene: Puissant_73 Start: 52254, Stop: 53387, Start Num: 53

Candidate Starts for Puissant_73:

(Start: 53 @52254 has 9 MA's), (55, 52260), (72, 52308), (97, 52416), (105, 52464), (112, 52494), (120, 52551), (121, 52560), (124, 52566), (144, 52668), (152, 52701), (156, 52716), (164, 52755), (174, 52794), (179, 52812), (184, 52830), (185, 52833), (187, 52842), (206, 52908), (213, 52932), (254, 53289), (261, 53367),

Gene: Quasar_40 Start: 29156, Stop: 28338, Start Num: 38

Candidate Starts for Quasar_40:

(Start: 38 @29156 has 42 MA's), (82, 29000), (83, 28997), (95, 28949), (101, 28937), (116, 28859), (122, 28826), (125, 28811), (126, 28808), (132, 28766), (141, 28727), (144, 28718), (159, 28661),

(172, 28598), (184, 28547), (217, 28433), (227, 28394),

Gene: RADical_41 Start: 28602, Stop: 27784, Start Num: 38

Candidate Starts for RADical_41:

(Start: 38 @28602 has 42 MA's), (82, 28446), (83, 28443), (95, 28395), (101, 28383), (116, 28305), (122, 28272), (125, 28257), (126, 28254), (132, 28212), (141, 28173), (144, 28164), (159, 28107), (172, 28044), (184, 27993), (217, 27879), (227, 27840),

Gene: RSchmailzl_41 Start: 28645, Stop: 27827, Start Num: 38

Candidate Starts for RSchmailzl_41:

(Start: 38 @28645 has 42 MA's), (82, 28489), (83, 28486), (95, 28438), (101, 28426), (116, 28348), (122, 28315), (125, 28300), (126, 28297), (132, 28255), (141, 28216), (144, 28207), (159, 28150), (172, 28087), (184, 28036), (217, 27922), (227, 27883),

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

Candidate Starts for Rachella_45:

(6, 29744), (10, 29774), (15, 29906), (Start: 62 @30170 has 56 MA's), (72, 30224), (77, 30260), (84, 30287), (96, 30332), (97, 30335), (104, 30380), (132, 30536), (140, 30572), (143, 30581), (144, 30584), (175, 30713), (179, 30728), (216, 30833), (227, 30875),

Gene: Ranch_67 Start: 44074, Stop: 45165, Start Num: 57

Candidate Starts for Ranch_67:

(Start: 57 @44074 has 47 MA's), (90, 44206), (101, 44254), (119, 44347), (120, 44356), (121, 44365), (149, 44488), (153, 44509), (161, 44536), (179, 44617), (184, 44635), (189, 44656), (210, 44734), (229, 44818), (249, 44983), (250, 44992), (260, 45136),

Gene: RanchParmCat_45 Start: 30427, Stop: 29621, Start Num: 38

Candidate Starts for RanchParmCat_45:

(Start: 37 @30430 has 13 MA's), (Start: 38 @30427 has 42 MA's), (74, 30325), (82, 30271), (101, 30214), (106, 30178), (119, 30121), (122, 30103), (125, 30088), (126, 30085), (133, 30040), (141, 30004), (144, 29995), (166, 29899), (172, 29875), (179, 29842), (203, 29776), (213, 29743),

Gene: RazorC_67 Start: 44218, Stop: 45288, Start Num: 57

Candidate Starts for RazorC_67:

(Start: 57 @44218 has 47 MA's), (78, 44314), (90, 44350), (101, 44398), (119, 44491), (120, 44500), (121, 44509), (149, 44632), (153, 44653), (161, 44680), (179, 44761), (184, 44779), (189, 44800), (210, 44878), (229, 44962), (260, 45259),

Gene: RedBaron_42 Start: 28845, Stop: 28027, Start Num: 38

Candidate Starts for RedBaron_42:

(Start: 38 @28845 has 42 MA's), (82, 28689), (83, 28686), (95, 28638), (101, 28626), (116, 28548), (122, 28515), (125, 28500), (126, 28497), (132, 28455), (141, 28416), (144, 28407), (150, 28386), (159, 28350), (172, 28287), (184, 28236), (217, 28122), (227, 28083),

Gene: RedRaider_72 Start: 54080, Stop: 53301, Start Num: 43

Candidate Starts for RedRaider_72:

(Start: 43 @54080 has 11 MA's), (72, 53996), (108, 53831), (142, 53648), (158, 53588), (165, 53552), (179, 53498), (184, 53480), (197, 53447), (200, 53438), (222, 53363), (224, 53351),

Gene: Riduram_67 Start: 43793, Stop: 44863, Start Num: 57

Candidate Starts for Riduram_67:

(Start: 57 @43793 has 47 MA's), (78, 43889), (90, 43925), (101, 43973), (119, 44066), (120, 44075), (121, 44084), (149, 44207), (153, 44228), (161, 44255), (179, 44336), (184, 44354), (189, 44375),

(210, 44453), (229, 44537), (260, 44834),

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

Candidate Starts for Rie18_45:

(8, 29262), (10, 29271), (Start: 62 @29667 has 56 MA's), (69, 29709), (72, 29721), (77, 29757), (84, 29784), (96, 29829), (97, 29832), (104, 29877), (132, 30033), (140, 30069), (143, 30078), (144, 30081), (175, 30210), (179, 30225), (216, 30330), (227, 30372),

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

Candidate Starts for RikSengupta_49:

(16, 30993), (Start: 56 @31227 has 18 MA's), (74, 31290), (93, 31374), (96, 31386), (97, 31389), (127, 31551), (132, 31587), (140, 31623), (157, 31686), (160, 31695), (175, 31764), (179, 31779), (227, 31926),

Gene: Riparian_72 Start: 52432, Stop: 53262, Start Num: 51

Candidate Starts for Riparian_72:

(Start: 51 @52432 has 9 MA's), (66, 52477), (73, 52507), (77, 52540), (84, 52564), (97, 52612), (102, 52633), (117, 52726), (121, 52756), (123, 52759), (126, 52771), (144, 52855), (154, 52885), (174, 52969), (176, 52975), (179, 52987), (184, 53005), (191, 53032), (192, 53035), (218, 53131), (226, 53152), (234, 53179),

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

Candidate Starts for Rooney_64:

(Start: 60 @46156 has 9 MA's), (72, 46102), (75, 46093), (77, 46066), (84, 46042), (97, 45994), (118, 45889), (135, 45790), (136, 45784), (146, 45745), (151, 45724), (168, 45652), (179, 45607), (181, 45601), (185, 45583), (204, 45556), (221, 45484),

Gene: Rope_70 Start: 52588, Stop: 53418, Start Num: 51

Candidate Starts for Rope_70:

(Start: 51 @52588 has 9 MA's), (66, 52633), (73, 52663), (77, 52696), (84, 52720), (97, 52768), (102, 52789), (117, 52882), (121, 52912), (123, 52915), (126, 52927), (144, 53011), (154, 53041), (174, 53125), (176, 53131), (179, 53143), (184, 53161), (191, 53188), (192, 53191), (218, 53287), (226, 53308), (234, 53335),

Gene: Rota_64 Start: 45088, Stop: 46158, Start Num: 57

Candidate Starts for Rota_64:

(Start: 57 @45088 has 47 MA's), (90, 45220), (101, 45268), (119, 45361), (120, 45370), (121, 45379), (149, 45502), (153, 45523), (161, 45550), (179, 45631), (184, 45649), (189, 45670), (210, 45748), (229, 45832), (241, 45910), (249, 45997), (260, 46129),

Gene: Rukungu_69 Start: 46093, Stop: 47184, Start Num: 57

Candidate Starts for Rukungu_69:

(Start: 57 @46093 has 47 MA's), (90, 46225), (101, 46273), (117, 46354), (119, 46366), (120, 46375), (121, 46384), (149, 46507), (153, 46528), (161, 46555), (179, 46636), (184, 46654), (189, 46675), (210, 46753), (229, 46837), (249, 47002), (250, 47011), (260, 47155),

Gene: Rumi_68 Start: 43761, Stop: 44831, Start Num: 57

Candidate Starts for Rumi_68:

(Start: 57 @43761 has 47 MA's), (78, 43857), (90, 43893), (101, 43941), (119, 44034), (120, 44043), (121, 44052), (149, 44175), (153, 44196), (161, 44223), (179, 44304), (184, 44322), (189, 44343), (210, 44421), (229, 44505), (260, 44802),

Gene: Sadboi_68 Start: 45890, Stop: 46960, Start Num: 57

Candidate Starts for Sadboi_68:

(Start: 57 @45890 has 47 MA's), (90, 46022), (101, 46070), (119, 46163), (120, 46172), (121, 46181), (149, 46304), (153, 46325), (161, 46352), (179, 46433), (184, 46451), (189, 46472), (210, 46550), (229, 46634), (249, 46799), (260, 46931),

Gene: Salvus_43 Start: 31234, Stop: 30389, Start Num: 30

Candidate Starts for Salvus_43:

(Start: 30 @31234 has 2 MA's), (Start: 38 @31210 has 42 MA's), (67, 31117), (79, 31057), (101, 30979), (104, 30952), (122, 30868), (144, 30760), (151, 30733), (173, 30631), (183, 30595), (189, 30568), (212, 30505), (228, 30430), (231, 30421),

Gene: Sampudon_67 Start: 46242, Stop: 47312, Start Num: 57

Candidate Starts for Sampudon_67:

(Start: 57 @46242 has 47 MA's), (90, 46374), (101, 46422), (117, 46503), (119, 46515), (120, 46524), (121, 46533), (149, 46656), (153, 46677), (161, 46704), (179, 46785), (184, 46803), (189, 46824), (210, 46902), (229, 46986), (241, 47064), (249, 47151), (260, 47283),

Gene: SassyC_69 Start: 47080, Stop: 46298, Start Num: 60

Candidate Starts for SassyC_69:

(25, 47188), (41, 47116), (Start: 60 @47080 has 9 MA's), (66, 47053), (72, 47026), (75, 47017), (77, 46990), (84, 46966), (97, 46918), (135, 46714), (136, 46708), (146, 46669), (151, 46648), (158, 46621), (168, 46576), (179, 46531), (181, 46525), (185, 46507), (207, 46471),

Gene: Scuba_75 Start: 51339, Stop: 50548, Start Num: 43

Candidate Starts for Scuba_75:

(Start: 43 @51339 has 11 MA's), (72, 51243), (120, 51009), (142, 50898), (145, 50889), (152, 50859), (158, 50838), (179, 50748), (184, 50730), (189, 50715), (213, 50655),

Gene: Send513_70 Start: 52966, Stop: 53796, Start Num: 51

Candidate Starts for Send513_70:

(Start: 51 @52966 has 9 MA's), (66, 53011), (73, 53041), (77, 53074), (84, 53098), (97, 53146), (102, 53167), (117, 53260), (121, 53290), (123, 53293), (144, 53389), (154, 53419), (174, 53503), (176, 53509), (179, 53521), (184, 53539), (191, 53566), (192, 53569), (218, 53665), (226, 53686), (234, 53713),

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

Candidate Starts for ShakeNBake_64:

(Start: 60 @46028 has 9 MA's), (72, 45974), (75, 45965), (77, 45938), (84, 45914), (97, 45866), (118, 45761), (135, 45662), (136, 45656), (146, 45617), (151, 45596), (168, 45524), (179, 45479), (181, 45473), (185, 45455), (207, 45419), (221, 45356),

Gene: SheckWes_44 Start: 30075, Stop: 29269, Start Num: 38

Candidate Starts for SheckWes_44:

(Start: 38 @30075 has 42 MA's), (74, 29967), (82, 29913), (101, 29850), (122, 29739), (131, 29697), (132, 29679), (133, 29676), (141, 29640), (144, 29631), (159, 29574), (169, 29526), (170, 29523), (179, 29481), (213, 29388), (227, 29319),

Gene: Shrew_85 Start: 51163, Stop: 51948, Start Num: 45

Candidate Starts for Shrew_85:

(Start: 45 @51163 has 3 MA's), (80, 51289), (81, 51295), (94, 51340), (116, 51439), (120, 51463), (122, 51472), (126, 51490), (141, 51571), (144, 51580), (151, 51607), (159, 51637), (171, 51691), (228, 51895), (237, 51931),

Gene: Sienna_56 Start: 41882, Stop: 42811, Start Num: 56

Candidate Starts for Sienna_56:

(Start: 56 @41882 has 18 MA's), (73, 41939), (77, 41972), (113, 42122), (114, 42131), (117, 42155), (120, 42176), (124, 42191), (126, 42203), (130, 42215), (135, 42254), (137, 42269), (147, 42302), (173, 42413), (174, 42419), (179, 42437), (186, 42461), (187, 42467), (195, 42497), (199, 42521), (223, 42614), (248, 42782),

Gene: SilentWarrior_45 Start: 29382, Stop: 30230, Start Num: 62

Candidate Starts for SilentWarrior_45:

(1, 28821), (5, 28917), (6, 28956), (10, 28986), (15, 29118), (Start: 62 @29382 has 56 MA's), (72, 29436), (77, 29472), (84, 29499), (96, 29544), (97, 29547), (104, 29592), (132, 29748), (140, 29784), (143, 29793), (144, 29796), (175, 29925), (179, 29940), (216, 30045), (227, 30087),

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

Candidate Starts for SirHarley_61:

(35, 44860), (Start: 62 @44932 has 56 MA's), (71, 44977), (74, 44989), (76, 45007), (77, 45019), (84, 45043), (85, 45046), (117, 45199), (120, 45220), (122, 45229), (124, 45235), (140, 45325), (141, 45328), (144, 45337), (150, 45358), (176, 45469), (179, 45481), (184, 45499), (199, 45550), (203, 45559), (213, 45589), (214, 45592),

Gene: SketchMex_40 Start: 28753, Stop: 27935, Start Num: 38

Candidate Starts for SketchMex_40:

(Start: 34 @28771 has 3 MA's), (Start: 38 @28753 has 42 MA's), (Start: 40 @28747 has 3 MA's), (82, 28597), (83, 28594), (101, 28534), (116, 28456), (122, 28423), (126, 28405), (132, 28363), (133, 28360), (141, 28324), (144, 28315), (159, 28258), (166, 28219), (176, 28174), (179, 28162), (183, 28150), (184, 28144), (202, 28096), (227, 27991),

Gene: Skysand_67 Start: 52239, Stop: 51460, Start Num: 43

Candidate Starts for Skysand_67:

(Start: 43 @52239 has 11 MA's), (72, 52155), (89, 52080), (142, 51807), (158, 51747), (165, 51711), (179, 51657), (184, 51639), (197, 51606), (200, 51597), (222, 51522), (224, 51510),

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

Candidate Starts for Snakehole_45:

(6, 28921), (7, 28927), (10, 28951), (15, 29083), (Start: 62 @29347 has 56 MA's), (72, 29401), (77, 29437), (84, 29464), (96, 29509), (97, 29512), (104, 29557), (132, 29713), (140, 29749), (143, 29758), (144, 29761), (175, 29890), (179, 29905), (216, 30010), (227, 30052),

Gene: Socotra_41 Start: 28607, Stop: 27789, Start Num: 38

Candidate Starts for Socotra_41:

(Start: 38 @28607 has 42 MA's), (82, 28451), (83, 28448), (95, 28400), (101, 28388), (116, 28310), (122, 28277), (125, 28262), (126, 28259), (132, 28217), (141, 28178), (144, 28169), (150, 28148), (159, 28112), (172, 28049), (184, 27998), (217, 27884), (227, 27845),

Gene: Sopespian_39 Start: 28609, Stop: 27791, Start Num: 38

Candidate Starts for Sopespian_39:

(Start: 38 @28609 has 42 MA's), (82, 28453), (83, 28450), (95, 28402), (101, 28390), (116, 28312), (122, 28279), (125, 28264), (126, 28261), (132, 28219), (141, 28180), (144, 28171), (159, 28114), (172, 28051), (184, 28000), (217, 27886), (227, 27847),

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

Candidate Starts for Sparcetus_49:

(Start: 56 @31104 has 18 MA's), (74, 31167), (93, 31251), (96, 31263), (97, 31266), (127, 31428), (132, 31464), (140, 31500), (157, 31563), (160, 31572), (175, 31641), (179, 31656), (227, 31803),

Gene: StarStruck_66 Start: 51894, Stop: 51040, Start Num: 56

Candidate Starts for StarStruck_66:

(Start: 56 @51894 has 18 MA's), (116, 51615), (126, 51564), (142, 51474), (153, 51432), (158, 51414), (165, 51378), (173, 51348), (179, 51324), (184, 51306),

Gene: Starburst_41 Start: 28602, Stop: 27784, Start Num: 38

Candidate Starts for Starburst_41:

(Start: 38 @28602 has 42 MA's), (82, 28446), (83, 28443), (95, 28395), (101, 28383), (116, 28305), (122, 28272), (125, 28257), (126, 28254), (132, 28212), (141, 28173), (144, 28164), (159, 28107), (172, 28044), (184, 27993), (217, 27879), (219, 27876), (227, 27840),

Gene: SteamedHams_41 Start: 28529, Stop: 27711, Start Num: 38

Candidate Starts for SteamedHams_41:

(Start: 34 @28547 has 3 MA's), (Start: 38 @28529 has 42 MA's), (82, 28373), (83, 28370), (95, 28322), (101, 28310), (116, 28232), (122, 28199), (126, 28181), (131, 28157), (132, 28139), (133, 28136), (141, 28100), (144, 28091), (159, 28034), (166, 27995), (183, 27926), (184, 27920), (202, 27872), (227, 27767),

Gene: Stickynote_54 Start: 45345, Stop: 44581, Start Num: 58

Candidate Starts for Stickynote_54:

(Start: 58 @45345 has 8 MA's), (104, 45126), (165, 44844), (179, 44790), (203, 44745), (223, 44661),

Gene: Stormer_67 Start: 43765, Stop: 44835, Start Num: 57

Candidate Starts for Stormer_67:

(Start: 57 @43765 has 47 MA's), (78, 43861), (90, 43897), (101, 43945), (119, 44038), (120, 44047), (121, 44056), (149, 44179), (153, 44200), (161, 44227), (179, 44308), (184, 44326), (189, 44347), (210, 44425), (229, 44509), (260, 44806),

Gene: Sukkupi_66 Start: 50275, Stop: 49478, Start Num: 50

Candidate Starts for Sukkupi_66:

(23, 50374), (39, 50302), (Start: 50 @50275 has 8 MA's), (72, 50200), (110, 50026), (133, 49894), (139, 49864), (142, 49855), (145, 49846), (151, 49819), (158, 49792), (168, 49747), (176, 49714), (179, 49702), (184, 49684), (213, 49603), (232, 49525),

Gene: SummitAcademy_41 Start: 30111, Stop: 29305, Start Num: 38

Candidate Starts for SummitAcademy_41:

(Start: 38 @30111 has 42 MA's), (Start: 40 @30105 has 3 MA's), (74, 30003), (82, 29949), (101, 29886), (122, 29775), (125, 29760), (132, 29715), (133, 29712), (141, 29676), (144, 29667), (159, 29610), (169, 29562), (170, 29559), (179, 29517), (213, 29424), (227, 29355),

Gene: SuperSonics_88 Start: 54521, Stop: 55606, Start Num: 57

Candidate Starts for SuperSonics_88:

(Start: 57 @54521 has 47 MA's), (73, 54578), (74, 54581), (77, 54611), (93, 54668), (97, 54683), (120, 54812), (125, 54836), (133, 54890), (138, 54914), (173, 55058), (174, 55064), (176, 55070), (178, 55079), (179, 55082), (184, 55100), (190, 55127), (206, 55187), (216, 55235), (229, 55283), (233, 55301), (243, 55361), (244, 55382), (252, 55517), (253, 55532),

Gene: SuperSulley_67 Start: 52253, Stop: 51390, Start Num: 52

Candidate Starts for SuperSulley_67:

(28, 52331), (Start: 52 @52253 has 20 MA's), (91, 52091), (116, 51965), (142, 51824), (151, 51791), (158, 51764), (160, 51758), (173, 51698), (179, 51674), (184, 51656), (205, 51602), (215, 51572), (223, 51527),

Gene: SuperheroCarly_61 Start: 44606, Stop: 45466, Start Num: 62

Candidate Starts for SuperheroCarly_61:

(35, 44534), (Start: 62 @44606 has 56 MA's), (71, 44651), (74, 44663), (76, 44681), (77, 44693), (84, 44717), (85, 44720), (117, 44873), (120, 44894), (122, 44903), (124, 44909), (140, 44999), (141, 45002), (144, 45011), (150, 45032), (176, 45143), (179, 45155), (184, 45173), (199, 45224), (203, 45233), (213, 45263), (214, 45266),

Gene: Survivors_38 Start: 28560, Stop: 27748, Start Num: 37

Candidate Starts for Survivors_38:

(21, 28632), (Start: 37 @28560 has 13 MA's), (101, 28344), (106, 28308), (116, 28266), (119, 28251), (122, 28233), (125, 28218), (126, 28215), (132, 28173), (144, 28125), (160, 28065), (166, 28032), (178, 27978), (183, 27963), (217, 27846),

Gene: Suzy_56 Start: 43075, Stop: 44001, Start Num: 56

Candidate Starts for Suzy_56:

(Start: 56 @43075 has 18 MA's), (73, 43132), (77, 43165), (113, 43315), (114, 43324), (120, 43369), (124, 43384), (126, 43396), (130, 43408), (135, 43447), (137, 43462), (147, 43495), (173, 43606), (174, 43612), (179, 43630), (186, 43654), (187, 43660), (193, 43684), (195, 43690), (199, 43714), (217, 43783), (223, 43807), (248, 43972),

Gene: SweatNTears_41 Start: 28505, Stop: 27687, Start Num: 38

Candidate Starts for SweatNTears_41:

(Start: 38 @28505 has 42 MA's), (82, 28349), (83, 28346), (95, 28298), (101, 28286), (116, 28208), (122, 28175), (125, 28160), (126, 28157), (131, 28133), (132, 28115), (141, 28076), (144, 28067), (159, 28010), (172, 27947), (184, 27896), (217, 27782), (227, 27743),

Gene: Tarnish_41 Start: 30621, Stop: 29815, Start Num: 38

Candidate Starts for Tarnish_41:

(Start: 38 @30621 has 42 MA's), (Start: 40 @30615 has 3 MA's), (74, 30513), (82, 30459), (101, 30396), (106, 30360), (122, 30285), (125, 30270), (132, 30225), (133, 30222), (141, 30186), (144, 30177), (159, 30120), (169, 30072), (170, 30069), (179, 30027), (213, 29934), (227, 29865),

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

Candidate Starts for Tedro_45:

(6, 29175), (10, 29205), (14, 29301), (15, 29337), (Start: 62 @29601 has 56 MA's), (72, 29655), (77, 29691), (84, 29718), (96, 29763), (97, 29766), (104, 29811), (132, 29967), (140, 30003), (143, 30012), (144, 30015), (175, 30144), (179, 30159), (216, 30264), (227, 30306),

Gene: Terapin_57 Start: 41806, Stop: 42735, Start Num: 56

Candidate Starts for Terapin_57:

(Start: 56 @41806 has 18 MA's), (73, 41863), (77, 41896), (113, 42046), (114, 42055), (117, 42079), (120, 42100), (124, 42115), (126, 42127), (130, 42139), (135, 42178), (137, 42193), (147, 42226), (173, 42337), (174, 42343), (179, 42361), (186, 42385), (187, 42391), (195, 42421), (199, 42445), (223, 42538), (248, 42706),

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

Candidate Starts for Thoth_59:

(35, 44416), (Start: 62 @44488 has 56 MA's), (71, 44533), (74, 44545), (76, 44563), (77, 44575), (84, 44599), (85, 44602), (117, 44755), (120, 44776), (122, 44785), (124, 44791), (140, 44881), (141,

44884), (144, 44893), (150, 44914), (176, 45025), (179, 45037), (184, 45055), (199, 45106), (203, 45115), (213, 45145), (214, 45148),

Gene: Thumb_73 Start: 52573, Stop: 53652, Start Num: 53

Candidate Starts for Thumb_73:

(Start: 53 @52573 has 9 MA's), (55, 52579), (72, 52627), (97, 52735), (105, 52783), (112, 52813), (120, 52870), (121, 52879), (124, 52885), (144, 52987), (152, 53020), (156, 53035), (164, 53074), (174, 53113), (179, 53131), (184, 53149), (185, 53152), (187, 53161), (206, 53227), (213, 53251), (247, 53443), (257, 53590), (258, 53593), (261, 53632), (262, 53641),

Gene: Tillicus_62 Start: 44587, Stop: 45672, Start Num: 57

Candidate Starts for Tillicus_62:

(Start: 57 @44587 has 47 MA's), (76, 44668), (77, 44680), (84, 44704), (90, 44719), (101, 44767), (119, 44860), (120, 44869), (121, 44878), (149, 45001), (153, 45022), (161, 45049), (179, 45130), (184, 45148), (189, 45169), (194, 45190), (210, 45247), (229, 45331),

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

Candidate Starts for TinyMiny_49:

(16, 30891), (Start: 56 @31125 has 18 MA's), (74, 31188), (93, 31272), (96, 31284), (97, 31287), (127, 31449), (132, 31485), (140, 31521), (157, 31584), (160, 31593), (175, 31662), (179, 31677), (227, 31824),

Gene: Tolls_41 Start: 28634, Stop: 27816, Start Num: 38

Candidate Starts for Tolls_41:

(Start: 34 @28652 has 3 MA's), (Start: 38 @28634 has 42 MA's), (Start: 40 @28628 has 3 MA's), (82, 28478), (83, 28475), (95, 28427), (101, 28415), (116, 28337), (122, 28304), (126, 28286), (132, 28244), (133, 28241), (141, 28205), (144, 28196), (159, 28139), (166, 28100), (183, 28031), (184, 28025), (202, 27977), (227, 27872),

Gene: Tongui_45 Start: 29721, Stop: 30566, Start Num: 62

Candidate Starts for Tongui_45:

(8, 29316), (10, 29325), (12, 29382), (Start: 62 @29721 has 56 MA's), (72, 29775), (77, 29811), (84, 29838), (96, 29883), (97, 29886), (104, 29931), (132, 30087), (140, 30123), (143, 30132), (144, 30135), (175, 30264), (179, 30279), (185, 30303), (216, 30384), (227, 30426),

Gene: Tracker_65 Start: 50870, Stop: 50052, Start Num: 52

Candidate Starts for Tracker_65:

(42, 50897), (Start: 52 @50870 has 20 MA's), (72, 50798), (116, 50576), (142, 50435), (145, 50426), (158, 50375), (165, 50339), (179, 50285), (184, 50267), (189, 50252),

Gene: Triscuit_80 Start: 49756, Stop: 50565, Start Num: 45

Candidate Starts for Triscuit_80:

(Start: 45 @49756 has 3 MA's), (86, 49903), (94, 49933), (101, 49954), (122, 50065), (126, 50083), (132, 50125), (133, 50128), (141, 50164), (159, 50230), (183, 50335), (184, 50341), (189, 50362), (236, 50521),

Gene: Troje_42 Start: 29091, Stop: 28273, Start Num: 38

Candidate Starts for Troje_42:

(Start: 34 @29109 has 3 MA's), (Start: 38 @29091 has 42 MA's), (Start: 40 @29085 has 3 MA's), (82, 28935), (83, 28932), (101, 28872), (116, 28794), (122, 28761), (126, 28743), (132, 28701), (133, 28698), (141, 28662), (144, 28653), (159, 28596), (166, 28557), (176, 28512), (179, 28500), (183, 28488), (184, 28482), (202, 28434), (227, 28329),

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

Candidate Starts for Troll4_59:

(35, 44547), (Start: 62 @44619 has 56 MA's), (71, 44664), (74, 44676), (76, 44694), (77, 44706), (84, 44730), (85, 44733), (117, 44886), (120, 44907), (122, 44916), (124, 44922), (140, 45012), (141, 45015), (144, 45024), (150, 45045), (176, 45156), (179, 45168), (184, 45186), (199, 45237), (203, 45246), (213, 45276), (214, 45279),

Gene: Turuncu_68 Start: 51816, Stop: 51037, Start Num: 43

Candidate Starts for Turuncu_68:

(Start: 43 @51816 has 11 MA's), (72, 51729), (139, 51390), (142, 51381), (151, 51348), (158, 51321), (165, 51291), (179, 51237), (181, 51231), (184, 51219), (185, 51213), (200, 51177), (215, 51141),

Gene: Typhonomachy_38 Start: 28227, Stop: 27409, Start Num: 38

Candidate Starts for Typhonomachy_38:

(Start: 38 @28227 has 42 MA's), (82, 28071), (83, 28068), (95, 28020), (101, 28008), (116, 27930), (122, 27897), (125, 27882), (126, 27879), (132, 27837), (141, 27798), (144, 27789), (150, 27768), (159, 27732), (172, 27669), (184, 27618), (217, 27504), (227, 27465),

Gene: Vine_44 Start: 30838, Stop: 30032, Start Num: 38

Candidate Starts for Vine_44:

(Start: 38 @30838 has 42 MA's), (Start: 40 @30832 has 3 MA's), (74, 30730), (82, 30676), (101, 30613), (106, 30577), (122, 30502), (125, 30487), (132, 30442), (133, 30439), (141, 30403), (144, 30394), (159, 30337), (169, 30289), (170, 30286), (179, 30244), (213, 30151), (227, 30082),

Gene: Virizion_69 Start: 46376, Stop: 45591, Start Num: 60

Candidate Starts for Virizion_69:

(Start: 60 @46376 has 9 MA's), (72, 46322), (75, 46313), (77, 46286), (84, 46262), (97, 46214), (135, 46010), (136, 46004), (146, 45965), (151, 45944), (168, 45872), (179, 45827), (181, 45821), (185, 45803), (204, 45776), (221, 45704),

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

Candidate Starts for Visconti_60:

(35, 44427), (Start: 62 @44499 has 56 MA's), (71, 44544), (74, 44556), (76, 44574), (77, 44586), (84, 44610), (85, 44613), (117, 44766), (120, 44787), (122, 44796), (124, 44802), (140, 44892), (141, 44895), (144, 44904), (150, 44925), (176, 45036), (179, 45048), (184, 45066), (199, 45117), (203, 45126), (213, 45156), (214, 45159),

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

Candidate Starts for WaldoWhy_61:

(35, 44480), (Start: 62 @44552 has 56 MA's), (71, 44597), (74, 44609), (76, 44627), (77, 44639), (84, 44663), (85, 44666), (117, 44819), (120, 44840), (122, 44849), (124, 44855), (140, 44945), (141, 44948), (144, 44957), (150, 44978), (176, 45089), (179, 45101), (184, 45119), (199, 45170), (203, 45179), (213, 45209), (214, 45212),

Gene: Weiss13_70 Start: 52669, Stop: 53499, Start Num: 51

Candidate Starts for Weiss13_70:

(Start: 51 @52669 has 9 MA's), (66, 52714), (73, 52744), (77, 52777), (84, 52801), (97, 52849), (102, 52870), (117, 52963), (121, 52993), (123, 52996), (126, 53008), (144, 53092), (154, 53122), (174, 53206), (176, 53212), (179, 53224), (184, 53242), (191, 53269), (192, 53272), (218, 53368), (226, 53389), (234, 53416),

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

Candidate Starts for Wentworth_64:

(Start: 60 @46130 has 9 MA's), (68, 46088), (72, 46076), (73, 46073), (77, 46040), (97, 45968), (116, 45869), (135, 45764), (136, 45758), (146, 45719), (151, 45698), (163, 45641), (179, 45581), (181, 45575), (204, 45530), (207, 45521),

Gene: Wheezy_65 Start: 51084, Stop: 50263, Start Num: 52

Candidate Starts for Wheezy_65:

(42, 51111), (Start: 52 @51084 has 20 MA's), (72, 51012), (116, 50790), (142, 50649), (145, 50640), (158, 50589), (165, 50553), (179, 50499), (184, 50481), (189, 50466),

Gene: WhoseManz_65 Start: 48102, Stop: 47305, Start Num: 50

Candidate Starts for WhoseManz_65:

(Start: 50 @48102 has 8 MA's), (72, 48027), (133, 47721), (139, 47691), (142, 47682), (145, 47673), (151, 47646), (158, 47619), (168, 47574), (176, 47541), (179, 47529), (184, 47511), (213, 47430), (232, 47352),

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

Candidate Starts for Wilkos_66:

(Start: 60 @46285 has 9 MA's), (66, 46258), (68, 46243), (72, 46231), (73, 46228), (77, 46195), (84, 46171), (85, 46168), (93, 46138), (116, 46024), (135, 45919), (136, 45913), (146, 45874), (151, 45853), (163, 45796), (179, 45736), (181, 45730), (207, 45676),

Gene: Wojtek_63 Start: 44323, Stop: 45414, Start Num: 57

Candidate Starts for Wojtek_63:

(Start: 57 @44323 has 47 MA's), (76, 44404), (77, 44416), (90, 44455), (101, 44503), (119, 44596), (120, 44605), (121, 44614), (149, 44737), (153, 44758), (161, 44785), (179, 44866), (184, 44884), (189, 44905), (210, 44983), (229, 45067), (241, 45145), (249, 45232),

Gene: Wolfwood_40 Start: 28632, Stop: 27820, Start Num: 37

Candidate Starts for Wolfwood_40:

(21, 28704), (Start: 37 @28632 has 13 MA's), (101, 28416), (106, 28380), (116, 28338), (119, 28323), (122, 28305), (125, 28290), (126, 28287), (132, 28245), (144, 28197), (160, 28137), (166, 28104), (178, 28050), (183, 28035), (217, 27918),

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

Candidate Starts for Wollypog_48:

(Start: 62 @34784 has 56 MA's), (71, 34832), (72, 34838), (73, 34841), (84, 34898), (123, 35081), (124, 35084), (139, 35174), (148, 35201), (152, 35222), (177, 35324), (179, 35333),

Gene: Xenia2_66 Start: 44090, Stop: 45202, Start Num: 57

Candidate Starts for Xenia2_66:

(Start: 57 @44090 has 47 MA's), (77, 44186), (90, 44225), (101, 44273), (117, 44354), (119, 44366), (120, 44375), (121, 44384), (153, 44528), (179, 44636), (184, 44654), (189, 44675), (195, 44699), (196, 44702), (210, 44753), (239, 44894), (260, 45170),

Gene: Yakult_42 Start: 29373, Stop: 28570, Start Num: 38

Candidate Starts for Yakult_42:

(18, 29496), (20, 29466), (29, 29409), (Start: 37 @29376 has 13 MA's), (Start: 38 @29373 has 42 MA's), (74, 29274), (101, 29163), (106, 29127), (119, 29070), (122, 29052), (125, 29037), (126, 29034), (133, 28989), (141, 28953), (144, 28944), (172, 28824), (179, 28791), (183, 28779), (184, 28773), (189, 28752),

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

Candidate Starts for Yara_60:

(Start: 60 @44990 has 9 MA's), (66, 44963), (72, 44936), (75, 44927), (77, 44900), (146, 44579), (147, 44576), (151, 44558), (158, 44531), (181, 44435), (227, 44297),

Gene: Yarn_37 Start: 28394, Stop: 27576, Start Num: 38

Candidate Starts for Yarn_37:

(Start: 34 @28412 has 3 MA's), (Start: 38 @28394 has 42 MA's), (Start: 40 @28388 has 3 MA's), (82, 28238), (83, 28235), (95, 28187), (101, 28175), (116, 28097), (122, 28064), (126, 28046), (132, 28004), (133, 28001), (141, 27965), (144, 27956), (159, 27899), (166, 27860), (183, 27791), (184, 27785), (202, 27737), (227, 27632),

Gene: Yelo_69 Start: 53048, Stop: 53878, Start Num: 51

Candidate Starts for Yelo_69:

(Start: 51 @53048 has 9 MA's), (66, 53093), (73, 53123), (77, 53156), (84, 53180), (97, 53228), (102, 53249), (117, 53342), (121, 53372), (123, 53375), (126, 53387), (144, 53471), (154, 53501), (174, 53585), (176, 53591), (179, 53603), (184, 53621), (191, 53648), (192, 53651), (218, 53747), (226, 53768), (234, 53795),

Gene: Yikes_69 Start: 46336, Stop: 47406, Start Num: 57

Candidate Starts for Yikes_69:

(Start: 57 @46336 has 47 MA's), (90, 46468), (101, 46516), (119, 46609), (120, 46618), (121, 46627), (149, 46750), (153, 46771), (161, 46798), (179, 46879), (184, 46897), (189, 46918), (210, 46996), (229, 47080), (249, 47245), (260, 47377),

Gene: Yindexa_66 Start: 50275, Stop: 49478, Start Num: 50

Candidate Starts for Yindexa_66:

(23, 50374), (39, 50302), (Start: 50 @50275 has 8 MA's), (72, 50200), (110, 50026), (133, 49894), (139, 49864), (142, 49855), (145, 49846), (151, 49819), (158, 49792), (168, 49747), (176, 49714), (179, 49702), (184, 49684), (213, 49603), (232, 49525),

Gene: Yucky_44 Start: 30778, Stop: 29972, Start Num: 38

Candidate Starts for Yucky_44:

(Start: 38 @30778 has 42 MA's), (Start: 40 @30772 has 3 MA's), (74, 30670), (82, 30616), (101, 30553), (106, 30517), (122, 30442), (125, 30427), (132, 30382), (133, 30379), (141, 30343), (144, 30334), (159, 30277), (169, 30229), (170, 30226), (179, 30184), (213, 30091), (227, 30022),

Gene: Yummy_42 Start: 28728, Stop: 27910, Start Num: 38

Candidate Starts for Yummy_42:

(Start: 34 @28746 has 3 MA's), (Start: 38 @28728 has 42 MA's), (Start: 40 @28722 has 3 MA's), (82, 28572), (83, 28569), (101, 28509), (116, 28431), (122, 28398), (126, 28380), (132, 28338), (133, 28335), (141, 28299), (144, 28290), (159, 28233), (166, 28194), (176, 28149), (179, 28137), (183, 28125), (184, 28119), (227, 27966),

Gene: Zany_65 Start: 45737, Stop: 46807, Start Num: 57

Candidate Starts for Zany_65:

(Start: 57 @45737 has 47 MA's), (90, 45869), (101, 45917), (119, 46010), (120, 46019), (121, 46028), (149, 46151), (153, 46172), (161, 46199), (179, 46280), (184, 46298), (189, 46319), (210, 46397), (229, 46481), (249, 46646), (260, 46778),

Gene: Zareef_38 Start: 28654, Stop: 27842, Start Num: 37

Candidate Starts for Zareef_38:

(21, 28726), (Start: 37 @28654 has 13 MA's), (101, 28438), (106, 28402), (116, 28360), (119, 28345), (122, 28327), (125, 28312), (126, 28309), (132, 28267), (144, 28219), (160, 28159), (166, 28126), (178, 28072), (183, 28057), (217, 27940),

Gene: Zenon_72 Start: 52992, Stop: 53822, Start Num: 51

Candidate Starts for Zenon_72:

(Start: 51 @52992 has 9 MA's), (66, 53037), (73, 53067), (77, 53100), (84, 53124), (97, 53172), (102, 53193), (117, 53286), (121, 53316), (123, 53319), (144, 53415), (154, 53445), (174, 53529), (176, 53535), (179, 53547), (184, 53565), (191, 53592), (192, 53595), (218, 53691), (226, 53712), (234, 53739),

Gene: Zion_54 Start: 45339, Stop: 44575, Start Num: 58

Candidate Starts for Zion_54:

(Start: 58 @45339 has 8 MA's), (104, 45120), (120, 45045), (165, 44838), (179, 44784), (203, 44739), (223, 44655),

Gene: Zuko_81 Start: 61795, Stop: 62607, Start Num: 40

Candidate Starts for Zuko_81:

(Start: 40 @61795 has 3 MA's), (70, 61870), (103, 62005), (116, 62074), (118, 62080), (122, 62107), (126, 62125), (145, 62218), (152, 62248), (159, 62272), (170, 62326), (171, 62329), (182, 62377), (184, 62386), (189, 62407), (209, 62482),