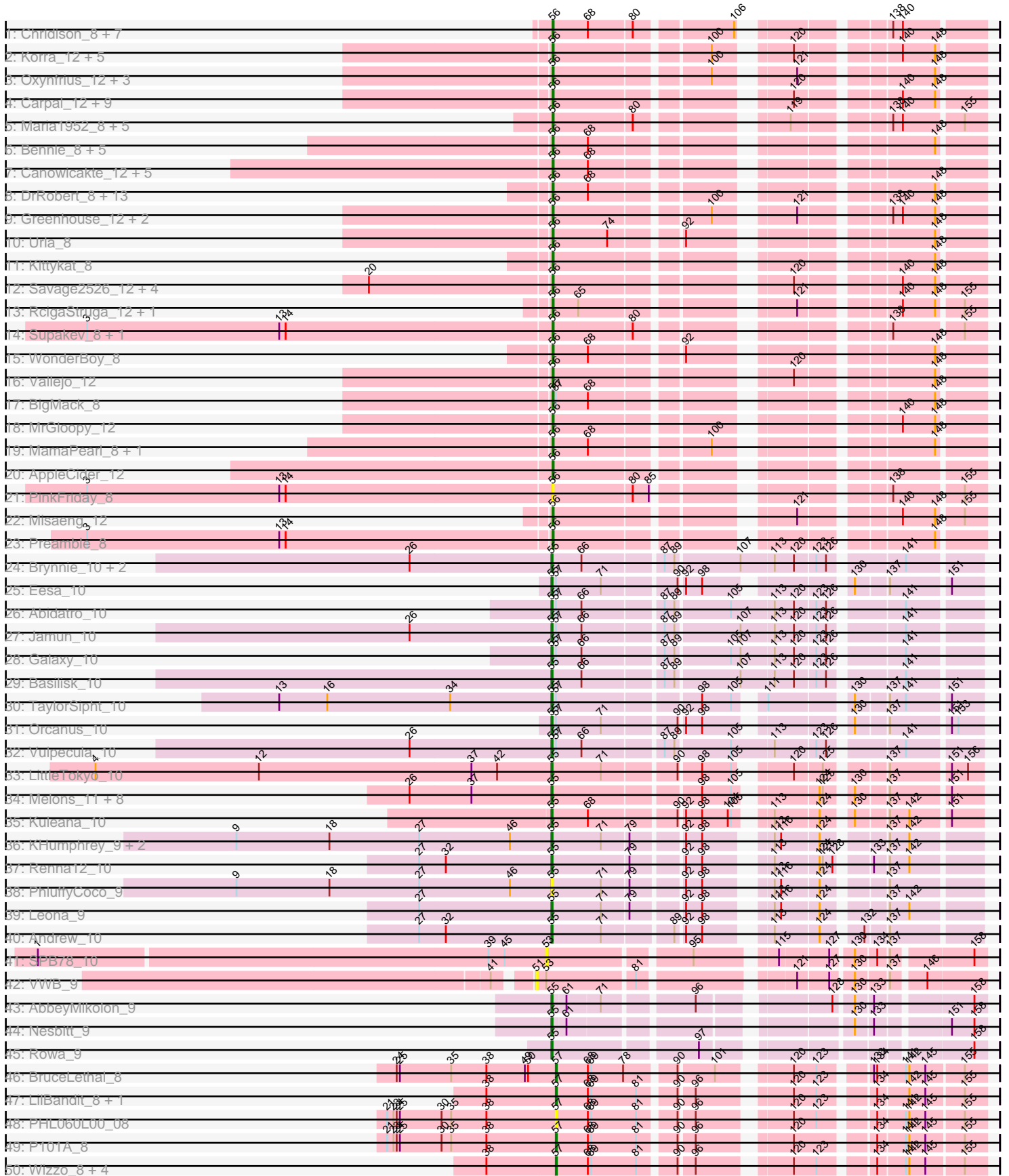
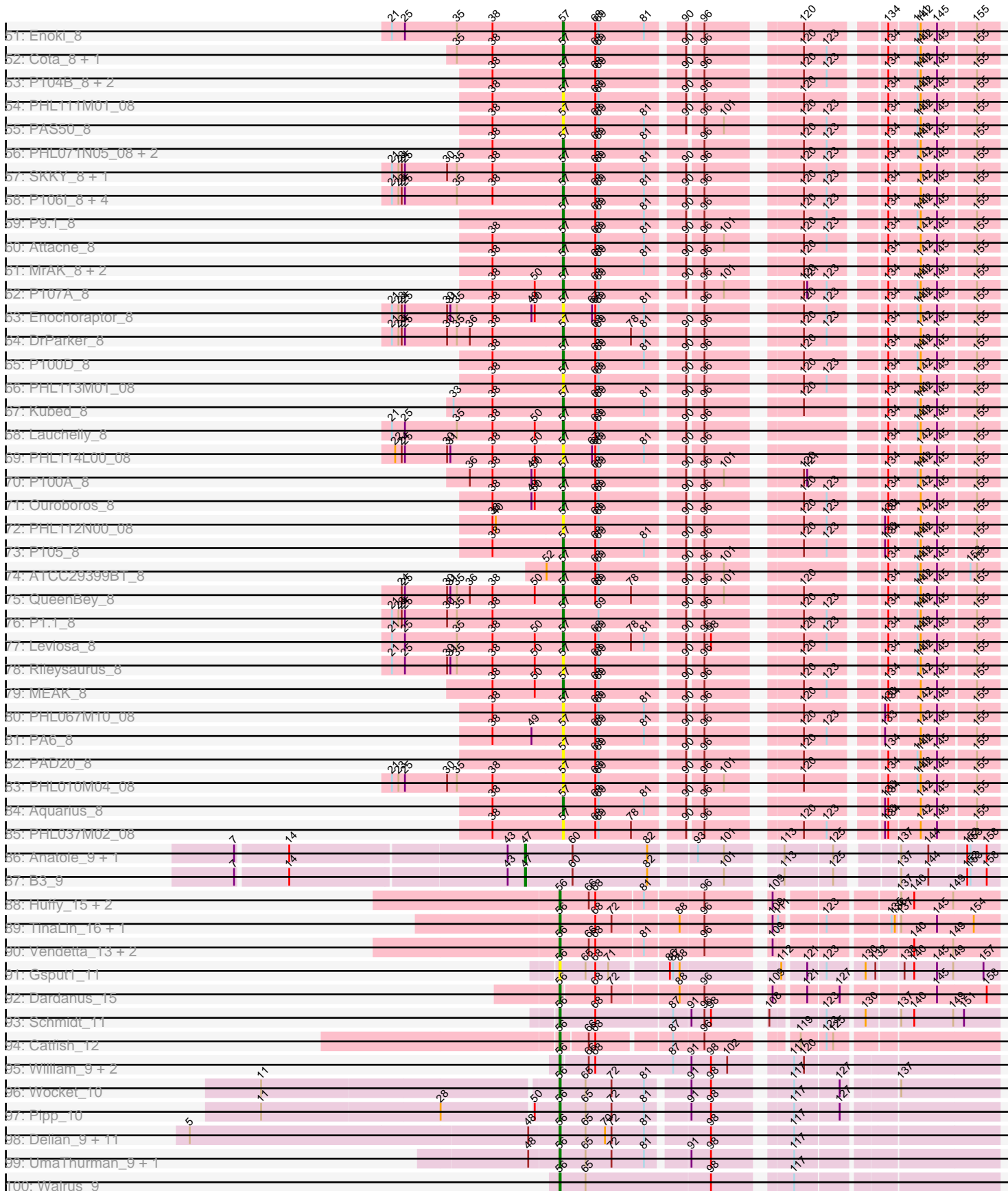


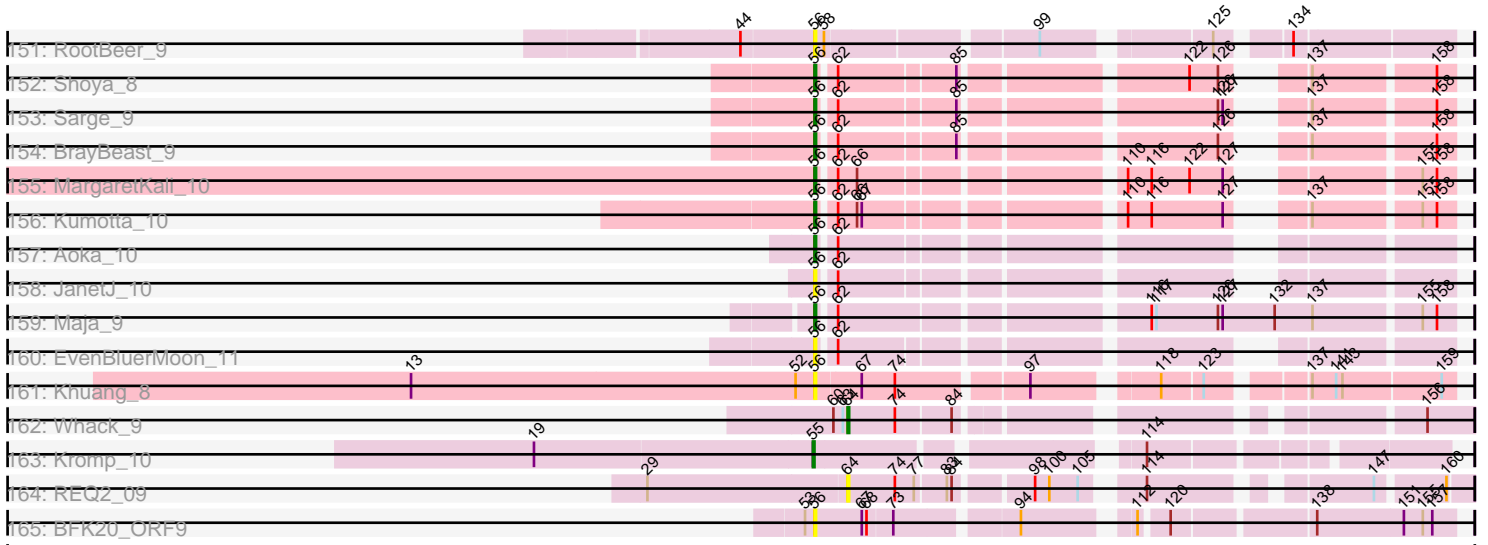
Pham 163292



Pham 163292



Pham 163292



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 163292 Report

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

WARNING: Pham size does not match number of genes in report. Either unphamerated genes have been added (by you) or starterator has removed genes due to invalid start codon.

Pham number 163292 has 323 members, 41 are drafts.

Phages represented in each track:

- Track 1 : Chridison_8, Riovina_8, Vulture_8, HunterDalle_8, Eunoia_8, Aledel_8, OMalley_8, AustinPowers_8
- Track 2 : Korra_12, Dino_12, Wawa_12, Kalizoi_12, BrotherBLo_12, Zorro_12
- Track 3 : Oxynfrius_12, Albanese_12, GreenHearts_12, Lakshmi_12
- Track 4 : Carpal_12, Rozby_12, Potatoes_12, Cholula_12, Fluke_12, Glenn_12, TattModd_12, Riverdale_12, Beethoven_12, Immaculata_12
- Track 5 : Maria1952_8, KingBob_8, Temper16_8, Sergei_8, Daiboju_8, Herb_8
- Track 6 : Bennie_8, DreamTeam_8, HeadNerd_8, Moki_8, Huckleberry_8, Gisselle_8
- Track 7 : Canowicakte_12, Suppi_12, Wayne_12, Litotes_12, PartyCup_12, CallieOMalley_12
- Track 8 : DrRobert_8, Christian_8, Lennox_8, Nancia_8, Makoto_8, Lucy_8, CristinaYang_8, PitaDog_8, OurGirlNessie_8, Pterodactyl_8, LilStuart_8, Lasagna_8, ChewChew_8, Bodacious_8
- Track 9 : Greenhouse_12, Joann_12, Nubia_12
- Track 10 : Urla_8
- Track 11 : Kittykat_8
- Track 12 : Savage2526_12, Jumboset_12, MeganNoll_12, Scuttle_12, RAP15_12
- Track 13 : RcigaStruga_12, Huntingdon_12
- Track 14 : Supakev_8, Pumancara_8
- Track 15 : WonderBoy_8
- Track 16 : Vallejo_12
- Track 17 : BigMack_8
- Track 18 : MrGloopy_12
- Track 19 : MamaPearl_8, EstebanJulior_8
- Track 20 : AppleCider_12
- Track 21 : PinkFriday_8
- Track 22 : Misaeng_12
- Track 23 : Preamble_8
- Track 24 : Brynnie_10, Chickaboom_9, Ruchi_10
- Track 25 : Eesa_10
- Track 26 : Abidatro_10
- Track 27 : Jamun_10

- Track 28 : Galaxy_10
- Track 29 : Basilisk_10
- Track 30 : TaylorSipht_10
- Track 31 : Orcanus_10
- Track 32 : Vulpecula_10
- Track 33 : LittleTokyo_10
- Track 34 : Melons_11, Cote_11, Amelia_11, Polka_10, Lunar_11, Daob_11, Coral_10, Kepler_10, HannahPhantana_11
- Track 35 : Kuleana_10
- Track 36 : KHumphrey_9, Juno112_9, RedFox_9
- Track 37 : Renna12_10
- Track 38 : PhluffyCoco_9
- Track 39 : Leona_9
- Track 40 : Andrew_10
- Track 41 : SPB78_10
- Track 42 : VWB_9
- Track 43 : AbbeyMikolon_9
- Track 44 : Nesbitt_9
- Track 45 : Rowa_9
- Track 46 : BruceLethal_8
- Track 47 : LilBandit_8, P14.4_8
- Track 48 : PHL060L00_08
- Track 49 : P101A_8
- Track 50 : Wizzo_8, Supernova_8, Solid_8, P107C_8, ATCC29399BC_8
- Track 51 : Enoki_8
- Track 52 : Cota_8, Keiki_8
- Track 53 : P104B_8, Procrass1_8, Stormborn_8
- Track 54 : PHL111M01_08
- Track 55 : PAS50_8
- Track 56 : PHL071N05_08, P108C_8, Pirate_8
- Track 57 : SKKY_8, Moyashi_8
- Track 58 : P106I_8, P106M_8, P106L_8, P106C_8, P106A_8
- Track 59 : P9.1_8
- Track 60 : Attacne_8
- Track 61 : MrAK_8, P104A_8, P100.1_8
- Track 62 : P107A_8
- Track 63 : Enochoraptor_8
- Track 64 : DrParker_8
- Track 65 : P100D_8
- Track 66 : PHL113M01_08
- Track 67 : Kubed_8
- Track 68 : Lauchelly_8
- Track 69 : PHL114L00_08
- Track 70 : P100A_8
- Track 71 : Ouroboros_8
- Track 72 : PHL112N00_08
- Track 73 : P105_8
- Track 74 : ATCC29399BT_8
- Track 75 : QueenBey_8
- Track 76 : P1.1_8
- Track 77 : Leviosa_8
- Track 78 : Rileysaurus_8
- Track 79 : MEAK_8

- Track 80 : PHL067M10_08
- Track 81 : PA6_8
- Track 82 : PAD20_8
- Track 83 : PHL010M04_08
- Track 84 : Aquarius_8
- Track 85 : PHL037M02_08
- Track 86 : Anatole_9, E1_9
- Track 87 : B3_9
- Track 88 : Huffy_15, TZGordon_15, DinoDaryn_15
- Track 89 : TinaLin_16, Banquo_17
- Track 90 : Vendetta_13, Goib_14, Splinter_13
- Track 91 : Gspu1_11
- Track 92 : Dardanus_15
- Track 93 : Schmidt_11
- Track 94 : Catfish_12
- Track 95 : William_9, Fairfaxidum_9, PrincePatrick_9
- Track 96 : Wocket_10
- Track 97 : Pipp_10
- Track 98 : Delian_9, Melba_9, MintFen_9, Guacamole_9, Utz_9, Lysidious_9, Barco_9, CaptainKirk2_9, BlingBling_9, JasperJr_9, Hitter_9, Zarbodnamra_9
- Track 99 : UmaThurman_9, Samba_9
- Track 100 : Walrus_9
- Track 101 : MissRona_9, Gambino_9, Azula_9, Blueberry_9
- Track 102 : Malachai_9, Begonia_9, Mellie_9
- Track 103 : Obliviate_9, ZiggyZoo_9, Wisp_9
- Track 104 : PCoral7_9, Toast_9
- Track 105 : Fenry_9
- Track 106 : Jalammah_9
- Track 107 : PhrostedPhlake_9
- Track 108 : Archis_10
- Track 109 : JuJu_9
- Track 110 : Murp_9
- Track 111 : Frokostdame_9, Blino_9, CarolAnn_9
- Track 112 : Petra_9
- Track 113 : KappaFarmDelta_9
- Track 114 : Archimedes_7
- Track 115 : Sapo_7
- Track 116 : Ghobes_7
- Track 117 : Avacadoman_9, Arroyo_10, Burritobowl_9, Johnathan_9, Cashington_9, Abigail_9, LimaBean_9, Doobus_9, DickRichards_9, AnnaLie_10, BelmontSKP_10, Albright_9, SansAfet_9
- Track 118 : FlameThrower_9
- Track 119 : Vitas_8, Clayda5_8, Brahms_8, Bernstein_8, Rollins_8, Coltrane_8, Armstrong_8, Skylord_8
- Track 120 : SanaSana_10, Stoor_9
- Track 121 : Kieran_9, ChiliPepper_9
- Track 122 : Stromboli_9, BabyYoda_9
- Track 123 : Sharkboy_9
- Track 124 : Icarian_10
- Track 125 : Bachaco_9, Katzastrophic_9, Celaena_9
- Track 126 : Dismas_9
- Track 127 : BabyDaisy_10, Lahqtemish_9
- Track 128 : IndyLu_9

- Track 129 : Buldak_9
- Track 130 : Kenzers_9, Lynlen_9, Phisb_9, BubbaBear_9, Albedo_9
- Track 131 : Rona_9
- Track 132 : Jovita_9, Eula_9, QMacho_10
- Track 133 : BAJuniper_9
- Track 134 : AvGardian_9
- Track 135 : Franklin22_8
- Track 136 : Didgeridoo_10
- Track 137 : Nicky22_10
- Track 138 : CroZenni_9
- Track 139 : SarBear_9, Slay_9, Finalfrontier_10, Swervy_9
- Track 140 : DirtyBubble_9
- Track 141 : Elva_10
- Track 142 : Eden_8
- Track 143 : TukTuk_9
- Track 144 : Gack_8
- Track 145 : Loviatar_16
- Track 146 : Quenya_10
- Track 147 : Adelaide_9, Bran_9
- Track 148 : Dina_9, Lederberg_9, SamW_9, Troy_9
- Track 149 : StAB_9
- Track 150 : Stiles_9
- Track 151 : RootBeer_9
- Track 152 : Shoya_8
- Track 153 : Sarge_9
- Track 154 : BrayBeast_9
- Track 155 : MargaretKali_10
- Track 156 : Kumotta_10
- Track 157 : Aoka_10
- Track 158 : JanetJ_10
- Track 159 : Maja_9
- Track 160 : EvenBluerMoon_11
- Track 161 : Khuang_8
- Track 162 : Whack_9
- Track 163 : Kromp_10
- Track 164 : REQ2_09
- Track 165 : BFK20_ORF9

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

The start number called the most often in the published annotations is 56, it was called in 195 of the 282 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

• Abigail_9, Albanese_12, Albedo_9, Albright_9, Aledel_8, AnnaLie_10, Aoka_10, AppleCider_12, Archis_10, Armstrong_8, Arroyo_10, AustinPowers_8, AvGardian_9, Avocadoman_9, Azula_9, BAJuniper_9, BFK20_ORF9, BabyDaisy_10, BabyYoda_9, Bachaco_9, Banquo_17, Barco_9, Beethoven_12, Begonia_9, BelmontSKP_10, Bennie_8, Bernstein_8, BigMack_8, BlingBling_9, Blino_9, Blueberry_9, Bodacious_8, Brahms_8, BrayBeast_9, BrotherBLo_12, BubbaBear_9, Buldak_9,

Burritobowl_9, CallieOMalley_12, Canowicakte_12, CaptainKirk2_9, CarolAnn_9, Carpal_12, Cashington_9, Catfish_12, Celaena_9, ChewChew_8, ChiliPepper_9, Cholula_12, Chridison_8, Christian_8, Clayda5_8, Coltrane_8, CristinaYang_8, CroZenni_9, Daiboju_8, Dardanus_15, Delian_9, DickRichards_9, Didgeridoo_10, DinoDaryn_15, Dino_12, DirtyBubble_9, Doobus_9, DrRobert_8, DreamTeam_8, Eden_8, Elva_10, EstebanJulior_8, Eula_9, Eunoia_8, EvenBluerMoon_11, Fairfaxidum_9, Fenry_9, Finalfrontier_10, FlameThrower_9, Fluke_12, Franklin22_8, Frokostdame_9, Gack_8, Gambino_9, Gisselle_8, Glenn_12, Goib_14, GreenHearts_12, Greenhouse_12, Gspu1_11, Guacamole_9, HeadNerd_8, Herb_8, Hitter_9, Huckleberry_8, Huffy_15, HunterDalle_8, Huntingdon_12, Icarian_10, Immaculata_12, IndyLu_9, Jalammah_9, JanetJ_10, JasperJr_9, Joann_12, Johnathan_9, Jovita_9, JuJu_9, Jumboset_12, Kalizoi_12, KappaFarmDelta_9, Katzastrophic_9, Kenzers_9, Khuang_8, Kieran_9, KingBob_8, Kittykat_8, Korra_12, Kumotta_10, Lahqtemish_9, Lakshmi_12, Lasagna_8, Lennox_8, LilStuart_8, LimaBean_9, Litotes_12, Loviatar_16, Lucy_8, Lynlen_9, Lysidious_9, Maja_9, Makoto_8, Malachai_9, MamaPearl_8, MargaretKali_10, Maria1952_8, MeganNoll_12, Melba_9, Mellie_9, MintFen_9, Misaeng_12, MissRona_9, Moki_8, MrGloopy_12, Murp_9, Nancia_8, Nicky22_10, Nubia_12, OMalley_8, Obliviate_9, OurGirlNessie_8, Oxynfrius_12, PCoral7_9, PartyCup_12, Petra_9, Phisb_9, PhrostedPhlake_9, PinkFriday_8, Pipp_10, PitaDog_8, Potatoes_12, Preamble_8, PrincePatrick_9, Pterodactyl_8, Pumancara_8, QMacho_10, Quenya_10, RAP15_12, RcigaStruga_12, Riovina_8, Riverdale_12, Rollins_8, Rona_9, RootBeer_9, Rozby_12, Samba_9, SanaSana_10, SansAfet_9, SarBear_9, Sarge_9, Savage2526_12, Schmidt_11, Scuttle_12, Sergei_8, Sharkboy_9, Shoya_8, Skylord_8, Slay_9, Splinter_13, Stoor_9, Stromboli_9, Supakev_8, Suppi_12, Swervy_9, TZGordon_15, TattModd_12, Temper16_8, TinaLin_16, Toast_9, TukTuk_9, UmaThurman_9, Urla_8, Utz_9, Vallejo_12, Vendetta_13, Vitas_8, Vulture_8, Walrus_9, Wawa_12, Wayne_12, William_9, Wisp_9, Wocket_10, WonderBoy_8, Zarbodnamra_9, ZiggyZoo_9, Zorro_12,

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

- Dismas_9,

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

- ATCC29399BC_8, ATCC29399BT_8, AbbeyMikolon_9, Abidatro_10, Adelaide_9, Amelia_11, Anatole_9, Andrew_10, Aquarius_8, Archimedes_7, Attacne_8, B3_9, Basilisk_10, Bran_9, BruceLethal_8, Brynnie_10, Chickaboom_9, Coral_10, Cota_8, Cote_11, Daob_11, Dina_9, DrParker_8, E1_9, Eesa_10, Enochoraptor_8, Enoki_8, Galaxy_10, Ghobes_7, HannahPhantana_11, Jamun_10, Juno112_9, KHumphrey_9, Keiki_8, Kepler_10, Kromp_10, Kubed_8, Kuleana_10, Lauchelly_8, Lederberg_9, Leona_9, Leviosa_8, LilBandit_8, LittleTokyo_10, Lunar_11, MEAK_8, Melons_11, Moyashi_8, MrAK_8, Nesbitt_9, Orcanus_10, Ouroboros_8, P1.1_8, P100.1_8, P100A_8, P100D_8, P101A_8, P104A_8, P104B_8, P105_8, P106A_8, P106C_8, P106I_8, P106L_8, P106M_8, P107A_8, P107C_8, P108C_8, P14.4_8, P9.1_8, PA6_8, PAD20_8, PAS50_8, PHL010M04_08, PHL037M02_08, PHL060L00_08, PHL067M10_08, PHL071N05_08, PHL111M01_08, PHL112N00_08, PHL113M01_08, PHL114L00_08, PhluffyCoco_9, Pirate_8, Polka_10, Procrass1_8, QueenBey_8, REQ2_09, RedFox_9, Renna12_10, Rileysaurus_8, Rowa_9, Ruchi_10, SKKY_8, SPB78_10, SamW_9, Sapo_7, Solid_8, StAB_9, Stiles_9, Stormborn_8, Supernova_8, TaylorSipt_10, Troy_9, VWB_9, Vulpecula_10, Whack_9, Wizzo_8,

Summary by start number:

Start 47:

- Found in 3 of 323 (0.9%) of genes in pham
- Manual Annotations of this start: 3 of 282
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Anatole_9 (BV), B3_9 (BV), E1_9 (BV),

Start 51:

- Found in 1 of 323 (0.3%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: VWB_9 (BA),

Start 53:

- Found in 3 of 323 (0.9%) of genes in pham
- No Manual Annotations of this start.
- Called 33.3% of time when present
- Phage (with cluster) where this start called: SPB78_10 (BA),

Start 54:

- Found in 18 of 323 (5.6%) of genes in pham
- Manual Annotations of this start: 1 of 282
- Called 5.6% of time when present
- Phage (with cluster) where this start called: Dismas_9 (EB),

Start 55:

- Found in 33 of 323 (10.2%) of genes in pham
- Manual Annotations of this start: 28 of 282
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AbbeyMikolon_9 (BL), Abidatro_10 (AS1), Amelia_11 (AS2), Andrew_10 (AS3), Basilisk_10 (AS1), Brynnie_10 (AS1), Chickaboom_9 (AS1), Coral_10 (AS2), Cote_11 (AS2), Daob_11 (AS2), Eesa_10 (AS1), Galaxy_10 (AS1), HannahPhantana_11 (AS2), Jamun_10 (AS1), Juno112_9 (AS3), KHumphrey_9 (AS3), Kepler_10 (AS2), Kromp_10 (singleton), Kuleana_10 (AS2), Leona_9 (AS3), LittleTokyo_10 (AS2), Lunar_11 (AS2), Melons_11 (AS2), Nesbitt_9 (BL), Orcanus_10 (AS1), PhluffyCoco_9 (AS3), Polka_10 (AS2), RedFox_9 (AS3), Renna12_10 (AS3), Rowa_9 (BL), Ruchi_10 (AS1), TaylorSipht_10 (AS1), Vulpecula_10 (AS1),

Start 56:

- Found in 215 of 323 (66.6%) of genes in pham
- Manual Annotations of this start: 195 of 282
- Called 99.5% of time when present
- Phage (with cluster) where this start called: Abigail_9 (EB), Albanese_12 (AK), Albedo_9 (EB), Albright_9 (EB), Aledel_8 (AK), AnnaLie_10 (EB), Aoka_10 (FO), AppleCider_12 (AK), Archis_10 (CV), Armstrong_8 (EB), Arroyo_10 (EB), AustinPowers_8 (AK), AvGardian_9 (EB), Avocadoman_9 (EB), Azula_9 (CV), BAjuniper_9 (EB), BFK20_ORF9 (singleton), BabyDaisy_10 (EB), BabyYoda_9 (EB), Bachaco_9 (EB), Banquo_17 (CU1), Barco_9 (CV), Beethoven_12 (AK), Begonia_9 (CV), BelmontSKP_10 (EB), Bennie_8 (AK), Bernstein_8 (EB), BigMack_8 (AK), BlingBling_9 (CV), Blino_9 (CV), Blueberry_9 (CV), Bodacious_8 (AK), Brahms_8 (EB), BrayBeast_9 (FB), BrotherBLo_12 (AK), BubbaBear_9 (EB), Buldak_9 (EB), Burritobowl_9 (EB), CallieOMalley_12 (AK), Canowicakte_12 (AK), CaptainKirk2_9

(CV), CarolAnn_9 (CV), Carpal_12 (AK), Cashington_9 (EB), Catfish_12 (CU5), Celaena_9 (EB), ChewChew_8 (AK), ChiliPepper_9 (EB), Cholula_12 (AK), Chridison_8 (AK), Christian_8 (AK), Clayda5_8 (EB), Coltrane_8 (EB), CristinaYang_8 (AK), CroZenni_9 (EB), Daiboju_8 (AK), Dardanus_15 (CU3), Delian_9 (CV), DickRichards_9 (EB), Didgeridoo_10 (EB), DinoDaryn_15 (CU1), Dino_12 (AK), DirtyBubble_9 (EB), Doobus_9 (EB), DrRobert_8 (AK), DreamTeam_8 (AK), Eden_8 (EB), Elva_10 (EB), EstebanJulior_8 (AK), Eula_9 (EB), Eunoia_8 (AK), EvenBluerMoon_11 (FO), Fairfaxidum_9 (CV), Fenry_9 (CV), Finalfrontier_10 (EB), FlameThrower_9 (EB), Fluke_12 (AK), Franklin22_8 (EB), Frokostdame_9 (CV), Gack_8 (EB), Gambino_9 (CV), Gisselle_8 (AK), Glenn_12 (AK), Goib_14 (CU1), GreenHearts_12 (AK), Greenhouse_12 (AK), Gspu1_11 (CU2), Guacamole_9 (CV), HeadNerd_8 (AK), Herb_8 (AK), Hitter_9 (CV), Huckleberry_8 (AK), Huffy_15 (CU1), HunterDalle_8 (AK), Huntingdon_12 (AK), Icarian_10 (EB), Immaculata_12 (AK), IndyLu_9 (EB), Jalammah_9 (CV), JanetJ_10 (FO), JasperJr_9 (CV), Joann_12 (AK), Johnathan_9 (EB), Jovita_9 (EB), JuJu_9 (CV), Jumboset_12 (AK), Kalizoi_12 (AK), KappaFarmDelta_9 (CV), Katzastrophic_9 (EB), Kenzers_9 (EB), Khuang_8 (UNK), Kieran_9 (EB), KingBob_8 (AK), Kittykat_8 (AK), Korra_12 (AK), Kumotta_10 (FB), Lahqtemish_9 (EB), Lakshmi_12 (AK), Lasagna_8 (AK), Lennox_8 (AK), LilStuart_8 (AK), LimaBean_9 (EB), Litotes_12 (AK), Loviatar_16 (EB), Lucy_8 (AK), Lynlen_9 (EB), Lysidious_9 (CV), Maja_9 (FO), Makoto_8 (AK), Malachai_9 (CV), MamaPearl_8 (AK), MargaretKali_10 (FB), Maria1952_8 (AK), MeganNoll_12 (AK), Melba_9 (CV), Mellie_9 (CV), MintFen_9 (CV), Misaeng_12 (AK), MissRona_9 (CV), Moki_8 (AK), MrGloopy_12 (AK), Murp_9 (CV), Nancia_8 (AK), Nicky22_10 (EB), Nubia_12 (AK), OMalley_8 (AK), Obliviate_9 (CV), OurGirlNessie_8 (AK), Oxynfrius_12 (AK), PCoral7_9 (CV), PartyCup_12 (AK), Petra_9 (CV), Phisb_9 (EB), PhrostedPhlake_9 (CV), PinkFriday_8 (AK), Pipp_10 (CV), PitaDog_8 (AK), Potatoes_12 (AK), Preamble_8 (AK), PrincePatrick_9 (CV), Pterodactyl_8 (AK), Pumancara_8 (AK), QMacho_10 (EB), Quenya_10 (EB), RAP15_12 (AK), RcigaStruga_12 (AK), Riovina_8 (AK), Riverdale_12 (AK), Rollins_8 (EB), Rona_9 (EB), RootBeer_9 (FA), Rozby_12 (AK), Samba_9 (CV), SanaSana_10 (EB), SansAfet_9 (EB), SarBear_9 (EB), Sarge_9 (FB), Savage2526_12 (AK), Schmidt_11 (CU4), Scuttle_12 (AK), Sergei_8 (AK), Sharkboy_9 (EB), Shoya_8 (FB), Skylord_8 (EB), Slay_9 (EB), Splinter_13 (CU1), Stoor_9 (EB), Stromboli_9 (EB), Supakev_8 (AK), Suppi_12 (AK), Swervy_9 (EB), TZGordon_15 (CU1), TattModd_12 (AK), Temper16_8 (AK), TinaLin_16 (CU1), Toast_9 (CV), TukTuk_9 (EB), UmaThurman_9 (CV), Urla_8 (AK), Utz_9 (CV), Vallejo_12 (AK), Vendetta_13 (CU1), Vitas_8 (EB), Vulture_8 (AK), Walrus_9 (CV), Wawa_12 (AK), Wayne_12 (AK), William_9 (CV), Wisp_9 (CV), Wocket_10 (CV), WonderBoy_8 (AK), Z̄arbodnamra_9 (CV), ZiggyZoo_9 (CV), Zorro_12 (AK),

Start 57:

- Found in 68 of 323 (21.1%) of genes in pham
- Manual Annotations of this start: 46 of 282
- Called 88.2% of time when present
- Phage (with cluster) where this start called: ATCC29399BC_8 (BU), ATCC29399BT_8 (BU), Aquarius_8 (BU), Archimedes_7 (DA), Attacne_8 (BU), BruceLethal_8 (BU), Cota_8 (BU), DrParker_8 (BU), Enochoraptor_8 (BU), Enoki_8 (BU), Ghobes_7 (DA), Keiki_8 (BU), Kubed_8 (BU), Lauchelly_8 (BU), Leviosa_8 (BU), LilBandit_8 (BU), MEAK_8 (BU), Moyashi_8 (BU), MrAK_8 (BU), Ouroboros_8 (BU), P1.1_8 (BU), P100.1_8 (BU), P100A_8 (BU), P100D_8 (BU), P101A_8 (BU), P104A_8 (BU), P104B_8 (BU), P105_8 (BU), P106A_8 (BU), P106C_8 (BU), P106L_8 (BU), P106M_8 (BU), P107A_8 (BU), P107C_8 (BU), P108C_8 (BU), P14.4_8 (BU), P9.1_8 (BU), PA6_8 (BU), PAD20_8 (BU), PAS50_8

(BU), PHL010M04_08 (BU), PHL037M02_08 (BU), PHL060L00_08 (BU), PHL067M10_08 (BU), PHL071N05_08 (BU), PHL111M01_08 (BU), PHL112N00_08 (BU), PHL113M01_08 (BU), PHL114L00_08 (BU), Pirate_8 (BU), Procrass1_8 (BU), QueenBey_8 (BU), Rileysaurus_8 (BU), SKKY_8 (BU), Sapo_7 (DA), Solid_8 (BU), Stormborn_8 (BU), Supernova_8 (BU), Wizzo_8 (BU),

Start 59:

- Found in 8 of 323 (2.5%) of genes in pham
- Manual Annotations of this start: 8 of 282
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Adelaide_9 (EP), Bran_9 (EP), Dina_9 (EP), Lederberg_9 (EP), SamW_9 (EP), StAB_9 (EP), Stiles_9 (EP), Troy_9 (EP),

Start 64:

- Found in 2 of 323 (0.6%) of genes in pham
- Manual Annotations of this start: 1 of 282
- Called 100.0% of time when present
- Phage (with cluster) where this start called: REQ2_09 (singleton), Whack_9 (singleton),

Summary by clusters:

There are 22 clusters represented in this pham: singleton, BA, BL, DA, FA, BV, FO, CU5, CU4, CU3, CU2, CU1, EP, AS3, AS2, AS1, AK, EB, UNK, CV, BU, FB,

Info for manual annotations of cluster AK:

- Start number 56 was manually annotated 80 times for cluster AK.

Info for manual annotations of cluster AS1:

- Start number 55 was manually annotated 10 times for cluster AS1.

Info for manual annotations of cluster AS2:

- Start number 55 was manually annotated 10 times for cluster AS2.

Info for manual annotations of cluster AS3:

- Start number 55 was manually annotated 4 times for cluster AS3.

Info for manual annotations of cluster BL:

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

Info for manual annotations of cluster BU:

- Start number 57 was manually annotated 43 times for cluster BU.

Info for manual annotations of cluster BV:

- Start number 47 was manually annotated 3 times for cluster BV.

Info for manual annotations of cluster CU1:

- Start number 56 was manually annotated 8 times for cluster CU1.

Info for manual annotations of cluster CU3:

- Start number 56 was manually annotated 1 time for cluster CU3.

Info for manual annotations of cluster CU4:

- Start number 56 was manually annotated 1 time for cluster CU4.

Info for manual annotations of cluster CU5:

- Start number 56 was manually annotated 1 time for cluster CU5.

Info for manual annotations of cluster CV:

- Start number 56 was manually annotated 41 times for cluster CV.

Info for manual annotations of cluster DA:

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

Info for manual annotations of cluster EB:

- Start number 54 was manually annotated 1 time for cluster EB.
- Start number 56 was manually annotated 56 times for cluster EB.

Info for manual annotations of cluster EP:

- Start number 59 was manually annotated 8 times for cluster EP.

Info for manual annotations of cluster FB:

- Start number 56 was manually annotated 5 times for cluster FB.

Info for manual annotations of cluster FO:

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

Gene Information:

Gene: ATCC29399BC_8 Start: 6098, Stop: 6445, Start Num: 57

Candidate Starts for ATCC29399BC_8:

(38, 6035), (Start: 57 @6098 has 46 MA's), (68, 6128), (69, 6131), (81, 6173), (90, 6203), (96, 6215), (120, 6287), (123, 6308), (134, 6350), (141, 6374), (142, 6377), (145, 6392), (155, 6425),

Gene: ATCC29399BT_8 Start: 6095, Stop: 6442, Start Num: 57

Candidate Starts for ATCC29399BT_8:

(52, 6080), (Start: 57 @6095 has 46 MA's), (68, 6125), (69, 6128), (90, 6200), (96, 6212), (101, 6230), (134, 6347), (141, 6371), (142, 6374), (145, 6389), (153, 6416), (155, 6422),

Gene: AbbeyMikolon_9 Start: 7191, Stop: 7532, Start Num: 55

Candidate Starts for AbbeyMikolon_9:

(Start: 55 @7191 has 28 MA's), (61, 7203), (71, 7233), (96, 7308), (128, 7410), (130, 7425), (133, 7440), (158, 7521),

Gene: Abidatro_10 Start: 7704, Stop: 8066, Start Num: 55

Candidate Starts for Abidatro_10:

(Start: 55 @7704 has 28 MA's), (Start: 57 @7707 has 46 MA's), (66, 7731), (87, 7800), (89, 7809), (105, 7857), (113, 7896), (120, 7914), (123, 7932), (126, 7941), (141, 8001),

Gene: Abigail_9 Start: 7444, Stop: 7773, Start Num: 56

Candidate Starts for Abigail_9:

(Start: 56 @7444 has 195 MA's), (62, 7459), (137, 7696), (151, 7741),

Gene: Adelaide_9 Start: 6873, Stop: 7217, Start Num: 59

Candidate Starts for Adelaide_9:

(10, 6582), (Start: 59 @6873 has 8 MA's), (81, 6939), (91, 6972), (96, 6984), (98, 6990), (101, 7002), (120, 7059), (133, 7122), (150, 7176), (155, 7197), (157, 7203),

Gene: Albanese_12 Start: 9846, Stop: 10184, Start Num: 56

Candidate Starts for Albanese_12:

(Start: 56 @9846 has 195 MA's), (100, 9978), (121, 10035), (148, 10143),

Gene: Albedo_9 Start: 7316, Stop: 7645, Start Num: 56

Candidate Starts for Albedo_9:

(15, 7076), (34, 7220), (Start: 56 @7316 has 195 MA's), (62, 7331), (137, 7568), (151, 7613), (153, 7619),

Gene: Albright_9 Start: 7325, Stop: 7654, Start Num: 56

Candidate Starts for Albright_9:

(Start: 56 @7325 has 195 MA's), (62, 7340), (137, 7577), (151, 7622),

Gene: Aledel_8 Start: 6923, Stop: 7261, Start Num: 56

Candidate Starts for Aledel_8:

(Start: 56 @6923 has 195 MA's), (68, 6956), (80, 6995), (106, 7076), (138, 7181), (140, 7190),

Gene: Amelia_11 Start: 7903, Stop: 8244, Start Num: 55

Candidate Starts for Amelia_11:

(26, 7771), (37, 7828), (Start: 55 @7903 has 28 MA's), (98, 8029), (105, 8056), (124, 8116), (125, 8119), (130, 8137), (137, 8164), (151, 8215),

Gene: Anatole_9 Start: 6977, Stop: 7360, Start Num: 47

Candidate Starts for Anatole_9:

(7, 6722), (14, 6767), (43, 6962), (Start: 47 @6977 has 3 MA's), (60, 7019), (82, 7088), (93, 7124), (101, 7148), (113, 7187), (125, 7229), (137, 7274), (144, 7298), (152, 7331), (153, 7334), (158, 7349),

Gene: Andrew_10 Start: 7691, Stop: 8029, Start Num: 55

Candidate Starts for Andrew_10:

(27, 7568), (32, 7592), (Start: 55 @7691 has 28 MA's), (71, 7736), (89, 7796), (92, 7802), (98, 7817), (113, 7862), (124, 7901), (132, 7931), (137, 7949),

Gene: AnnaLie_10 Start: 7671, Stop: 8000, Start Num: 56

Candidate Starts for AnnaLie_10:

(Start: 56 @7671 has 195 MA's), (62, 7686), (137, 7923), (151, 7968),

Gene: Aoka_10 Start: 8106, Stop: 8438, Start Num: 56

Candidate Starts for Aoka_10:

(Start: 56 @8106 has 195 MA's), (62, 8115),

Gene: AppleCider_12 Start: 9802, Stop: 10140, Start Num: 56

Candidate Starts for AppleCider_12:

(Start: 56 @9802 has 195 MA's),

Gene: Aquarius_8 Start: 6088, Stop: 6435, Start Num: 57

Candidate Starts for Aquarius_8:

(38, 6025), (Start: 57 @6088 has 46 MA's), (68, 6118), (69, 6121), (81, 6163), (90, 6193), (96, 6205), (133, 6337), (134, 6340), (142, 6367), (145, 6382), (155, 6415),

Gene: Archimedes_7 Start: 6004, Stop: 6366, Start Num: 57

Candidate Starts for Archimedes_7:

(17, 5794), (Start: 57 @6004 has 46 MA's), (98, 6136), (102, 6151), (104, 6160), (151, 6334),

Gene: Archis_10 Start: 7171, Stop: 7533, Start Num: 56

Candidate Starts for Archis_10:

(28, 7069), (Start: 56 @7171 has 195 MA's), (65, 7195), (72, 7219), (81, 7249), (91, 7282), (98, 7300), (117, 7360), (127, 7399),

Gene: Armstrong_8 Start: 7093, Stop: 7425, Start Num: 56

Candidate Starts for Armstrong_8:

(8, 6796), (Start: 56 @7093 has 195 MA's), (60, 7105), (62, 7108), (74, 7144), (80, 7165), (81, 7168), (116, 7267), (137, 7348),

Gene: Arroyo_10 Start: 7795, Stop: 8124, Start Num: 56

Candidate Starts for Arroyo_10:

(Start: 56 @7795 has 195 MA's), (62, 7810), (137, 8047), (151, 8092),

Gene: Attacne_8 Start: 6099, Stop: 6446, Start Num: 57

Candidate Starts for Attacne_8:

(38, 6036), (Start: 57 @6099 has 46 MA's), (68, 6129), (69, 6132), (81, 6174), (90, 6204), (96, 6216), (101, 6234), (120, 6288), (123, 6309), (134, 6351), (142, 6378), (145, 6393), (155, 6426),

Gene: AustinPowers_8 Start: 6924, Stop: 7262, Start Num: 56

Candidate Starts for AustinPowers_8:

(Start: 56 @6924 has 195 MA's), (68, 6957), (80, 6996), (106, 7077), (138, 7182), (140, 7191),

Gene: AvGardian_9 Start: 7373, Stop: 7702, Start Num: 56

Candidate Starts for AvGardian_9:

(Start: 56 @7373 has 195 MA's), (62, 7388), (89, 7472), (129, 7595), (137, 7625), (147, 7658), (151, 7670),

Gene: Avocadoman_9 Start: 7383, Stop: 7712, Start Num: 56

Candidate Starts for Avocadoman_9:

(Start: 56 @7383 has 195 MA's), (62, 7398), (137, 7635), (151, 7680),

Gene: Azula_9 Start: 6835, Stop: 7194, Start Num: 56

Candidate Starts for Azula_9:

(5, 6499), (Start: 56 @6835 has 195 MA's), (65, 6859), (70, 6877), (91, 6943), (98, 6961), (117, 7021),

Gene: B3_9 Start: 6977, Stop: 7360, Start Num: 47

Candidate Starts for B3_9:

(7, 6722), (14, 6767), (43, 6962), (Start: 47 @6977 has 3 MA's), (60, 7019), (82, 7088), (101, 7148), (113, 7187), (125, 7229), (137, 7274), (144, 7298), (152, 7331), (153, 7334), (158, 7349),

Gene: BAjuniper_9 Start: 7266, Stop: 7598, Start Num: 56

Candidate Starts for BAjuniper_9:

(8, 6969), (15, 7026), (Start: 56 @7266 has 195 MA's), (62, 7281), (74, 7314), (80, 7335), (123, 7470),

Gene: BFK20_ORF9 Start: 6860, Stop: 7216, Start Num: 56

Candidate Starts for BFK20_ORF9:

(53, 6854), (Start: 56 @6860 has 195 MA's), (67, 6890), (68, 6893), (73, 6908), (94, 6977), (112, 7034), (120, 7049), (138, 7130), (151, 7184), (155, 7196), (157, 7202),

Gene: BabyDaisy_10 Start: 7544, Stop: 7873, Start Num: 56

Candidate Starts for BabyDaisy_10:

(Start: 56 @7544 has 195 MA's), (62, 7559), (129, 7766), (137, 7796), (147, 7829), (151, 7841),

Gene: BabyYoda_9 Start: 7566, Stop: 7895, Start Num: 56

Candidate Starts for BabyYoda_9:

(Start: 54 @7563 has 1 MA's), (Start: 56 @7566 has 195 MA's), (62, 7581), (129, 7788), (130, 7791), (137, 7818), (151, 7863),

Gene: Bachaco_9 Start: 7457, Stop: 7786, Start Num: 56

Candidate Starts for Bachaco_9:

(Start: 54 @7454 has 1 MA's), (Start: 56 @7457 has 195 MA's), (62, 7472), (74, 7505), (129, 7679), (137, 7709), (151, 7754), (157, 7772),

Gene: Banquo_17 Start: 10497, Stop: 10856, Start Num: 56

Candidate Starts for Banquo_17:

(Start: 56 @10497 has 195 MA's), (68, 10530), (72, 10545), (88, 10602), (96, 10623), (109, 10671), (111, 10674), (123, 10710), (135, 10761), (136, 10764), (137, 10767), (145, 10800), (154, 10833),

Gene: Barco_9 Start: 6959, Stop: 7321, Start Num: 56

Candidate Starts for Barco_9:

(5, 6623), (48, 6932), (Start: 56 @6959 has 195 MA's), (65, 6983), (70, 7001), (72, 7007), (81, 7037), (98, 7088), (117, 7148),

Gene: Basilisk_10 Start: 8028, Stop: 8390, Start Num: 55

Candidate Starts for Basilisk_10:

(Start: 55 @8028 has 28 MA's), (66, 8055), (87, 8124), (89, 8133), (107, 8190), (113, 8220), (120, 8238), (123, 8256), (126, 8265), (141, 8325),

Gene: Beethoven_12 Start: 9762, Stop: 10100, Start Num: 56

Candidate Starts for Beethoven_12:

(Start: 56 @9762 has 195 MA's), (120, 9948), (140, 10029), (148, 10059),

Gene: Begonia_9 Start: 6962, Stop: 7324, Start Num: 56

Candidate Starts for Begonia_9:

(5, 6626), (48, 6935), (Start: 56 @6962 has 195 MA's), (65, 6986), (70, 7004), (72, 7010), (81, 7040), (91, 7073), (98, 7091), (117, 7151),

Gene: BelmontSKP_10 Start: 7671, Stop: 8000, Start Num: 56

Candidate Starts for BelmontSKP_10:

(Start: 56 @7671 has 195 MA's), (62, 7686), (137, 7923), (151, 7968),

Gene: Bennie_8 Start: 6907, Stop: 7245, Start Num: 56

Candidate Starts for Bennie_8:

(Start: 56 @6907 has 195 MA's), (68, 6940), (148, 7204),

Gene: Bernstein_8 Start: 7153, Stop: 7485, Start Num: 56

Candidate Starts for Bernstein_8:

(8, 6856), (Start: 56 @7153 has 195 MA's), (60, 7165), (62, 7168), (74, 7204), (80, 7225), (81, 7228), (116, 7327), (137, 7408),

Gene: BigMack_8 Start: 6907, Stop: 7245, Start Num: 56

Candidate Starts for BigMack_8:

(Start: 56 @6907 has 195 MA's), (Start: 57 @6910 has 46 MA's), (68, 6940), (148, 7204),

Gene: BlingBling_9 Start: 6959, Stop: 7321, Start Num: 56

Candidate Starts for BlingBling_9:

(5, 6623), (48, 6932), (Start: 56 @6959 has 195 MA's), (65, 6983), (70, 7001), (72, 7007), (81, 7037), (98, 7088), (117, 7148),

Gene: Blino_9 Start: 6859, Stop: 7221, Start Num: 56

Candidate Starts for Blino_9:

(5, 6523), (Start: 56 @6859 has 195 MA's), (65, 6883), (72, 6907), (81, 6937), (91, 6970), (98, 6988), (117, 7048),

Gene: Blueberry_9 Start: 6835, Stop: 7194, Start Num: 56

Candidate Starts for Blueberry_9:

(5, 6499), (Start: 56 @6835 has 195 MA's), (65, 6859), (70, 6877), (91, 6943), (98, 6961), (117, 7021),

Gene: Bodacious_8 Start: 6905, Stop: 7243, Start Num: 56

Candidate Starts for Bodacious_8:

(Start: 56 @6905 has 195 MA's), (68, 6938), (148, 7202),

Gene: Brahms_8 Start: 7093, Stop: 7425, Start Num: 56

Candidate Starts for Brahms_8:

(8, 6796), (Start: 56 @7093 has 195 MA's), (60, 7105), (62, 7108), (74, 7144), (80, 7165), (81, 7168), (116, 7267), (137, 7348),

Gene: Bran_9 Start: 6878, Stop: 7222, Start Num: 59

Candidate Starts for Bran_9:

(10, 6587), (Start: 59 @6878 has 8 MA's), (81, 6944), (91, 6977), (96, 6989), (98, 6995), (101, 7007), (120, 7064), (133, 7127), (150, 7181), (155, 7202), (157, 7208),

Gene: BrayBeast_9 Start: 7001, Stop: 7333, Start Num: 56

Candidate Starts for BrayBeast_9:

(Start: 56 @7001 has 195 MA's), (62, 7010), (85, 7079), (126, 7223), (137, 7250), (158, 7322),

Gene: BrotherBLo_12 Start: 9769, Stop: 10107, Start Num: 56

Candidate Starts for BrotherBLo_12:

(Start: 56 @9769 has 195 MA's), (100, 9901), (120, 9955), (140, 10036), (148, 10066),

Gene: BruceLethal_8 Start: 6088, Stop: 6435, Start Num: 57

Candidate Starts for BruceLethal_8:

(24, 5941), (25, 5944), (35, 5992), (38, 6025), (49, 6061), (50, 6064), (Start: 57 @6088 has 46 MA's), (68, 6118), (69, 6121), (78, 6151), (90, 6193), (101, 6223), (120, 6277), (123, 6298), (133, 6337), (134, 6340), (141, 6364), (142, 6367), (145, 6382), (155, 6415),

Gene: Brynnie_10 Start: 7840, Stop: 8202, Start Num: 55

Candidate Starts for Brynnie_10:

(26, 7708), (Start: 55 @7840 has 28 MA's), (66, 7867), (87, 7936), (89, 7945), (107, 8002), (113, 8032), (120, 8050), (123, 8068), (126, 8077), (141, 8137),

Gene: BubbaBear_9 Start: 7316, Stop: 7645, Start Num: 56

Candidate Starts for BubbaBear_9:

(15, 7076), (34, 7220), (Start: 56 @7316 has 195 MA's), (62, 7331), (137, 7568), (151, 7613), (153, 7619),

Gene: Buldak_9 Start: 7601, Stop: 7930, Start Num: 56

Candidate Starts for Buldak_9:

(8, 7304), (Start: 56 @7601 has 195 MA's), (62, 7616), (68, 7631), (74, 7649), (76, 7655), (82, 7676), (116, 7772), (137, 7853), (147, 7886),

Gene: Burritobowl_9 Start: 7352, Stop: 7681, Start Num: 56

Candidate Starts for Burritobowl_9:

(Start: 56 @7352 has 195 MA's), (62, 7367), (137, 7604), (151, 7649),

Gene: CallieOMalley_12 Start: 9802, Stop: 10140, Start Num: 56

Candidate Starts for CallieOMalley_12:

(Start: 56 @9802 has 195 MA's), (68, 9835),

Gene: Canowicakte_12 Start: 9837, Stop: 10175, Start Num: 56

Candidate Starts for Canowicakte_12:

(Start: 56 @9837 has 195 MA's), (68, 9870),

Gene: CaptainKirk2_9 Start: 6959, Stop: 7321, Start Num: 56

Candidate Starts for CaptainKirk2_9:

(5, 6623), (48, 6932), (Start: 56 @6959 has 195 MA's), (65, 6983), (70, 7001), (72, 7007), (81, 7037), (98, 7088), (117, 7148),

Gene: CarolAnn_9 Start: 6858, Stop: 7220, Start Num: 56

Candidate Starts for CarolAnn_9:

(5, 6522), (Start: 56 @6858 has 195 MA's), (65, 6882), (72, 6906), (81, 6936), (91, 6969), (98, 6987), (117, 7047),

Gene: Carpal_12 Start: 9769, Stop: 10107, Start Num: 56

Candidate Starts for Carpal_12:

(Start: 56 @9769 has 195 MA's), (120, 9955), (140, 10036), (148, 10066),

Gene: Cashington_9 Start: 7342, Stop: 7671, Start Num: 56

Candidate Starts for Cashington_9:

(Start: 56 @7342 has 195 MA's), (62, 7357), (137, 7594), (151, 7639),

Gene: Catfish_12 Start: 8464, Stop: 8817, Start Num: 56

Candidate Starts for Catfish_12:

(Start: 56 @8464 has 195 MA's), (66, 8488), (68, 8494), (87, 8557), (96, 8584), (119, 8650), (123, 8671), (125, 8677),

Gene: Celaena_9 Start: 7394, Stop: 7723, Start Num: 56

Candidate Starts for Celaena_9:

(Start: 54 @7391 has 1 MA's), (Start: 56 @7394 has 195 MA's), (62, 7409), (74, 7442), (129, 7616), (137, 7646), (151, 7691), (157, 7709),

Gene: ChewChew_8 Start: 6904, Stop: 7242, Start Num: 56

Candidate Starts for ChewChew_8:

(Start: 56 @6904 has 195 MA's), (68, 6937), (148, 7201),

Gene: Chickaboom_9 Start: 7385, Stop: 7747, Start Num: 55

Candidate Starts for Chickaboom_9:

(26, 7253), (Start: 55 @7385 has 28 MA's), (66, 7412), (87, 7481), (89, 7490), (107, 7547), (113, 7577), (120, 7595), (123, 7613), (126, 7622), (141, 7682),

Gene: ChiliPepper_9 Start: 7553, Stop: 7882, Start Num: 56

Candidate Starts for ChiliPepper_9:

(8, 7256), (34, 7457), (Start: 54 @7550 has 1 MA's), (Start: 56 @7553 has 195 MA's), (62, 7568), (81, 7625), (87, 7643), (105, 7700), (129, 7775), (137, 7805), (151, 7850),

Gene: Cholula_12 Start: 9814, Stop: 10152, Start Num: 56

Candidate Starts for Cholula_12:

(Start: 56 @9814 has 195 MA's), (120, 10000), (140, 10081), (148, 10111),

Gene: Chridison_8 Start: 6924, Stop: 7262, Start Num: 56

Candidate Starts for Chridison_8:

(Start: 56 @6924 has 195 MA's), (68, 6957), (80, 6996), (106, 7077), (138, 7182), (140, 7191),

Gene: Christian_8 Start: 6905, Stop: 7243, Start Num: 56

Candidate Starts for Christian_8:

(Start: 56 @6905 has 195 MA's), (68, 6938), (148, 7202),

Gene: Clayda5_8 Start: 7093, Stop: 7425, Start Num: 56

Candidate Starts for Clayda5_8:

(8, 6796), (Start: 56 @7093 has 195 MA's), (60, 7105), (62, 7108), (74, 7144), (80, 7165), (81, 7168), (116, 7267), (137, 7348),

Gene: Coltrane_8 Start: 7093, Stop: 7425, Start Num: 56

Candidate Starts for Coltrane_8:

(8, 6796), (Start: 56 @7093 has 195 MA's), (60, 7105), (62, 7108), (74, 7144), (80, 7165), (81, 7168), (116, 7267), (137, 7348),

Gene: Coral_10 Start: 7742, Stop: 8083, Start Num: 55

Candidate Starts for Coral_10:

(26, 7610), (37, 7667), (Start: 55 @7742 has 28 MA's), (98, 7868), (105, 7895), (124, 7955), (125, 7958), (130, 7976), (137, 8003), (151, 8054),

Gene: Cota_8 Start: 6106, Stop: 6453, Start Num: 57

Candidate Starts for Cota_8:

(35, 6010), (38, 6043), (Start: 57 @6106 has 46 MA's), (68, 6136), (69, 6139), (90, 6211), (96, 6223), (120, 6295), (123, 6316), (134, 6358), (141, 6382), (142, 6385), (145, 6400), (155, 6433),

Gene: Cote_11 Start: 7903, Stop: 8244, Start Num: 55

Candidate Starts for Cote_11:

(26, 7771), (37, 7828), (Start: 55 @7903 has 28 MA's), (98, 8029), (105, 8056), (124, 8116), (125, 8119), (130, 8137), (137, 8164), (151, 8215),

Gene: CristinaYang_8 Start: 6905, Stop: 7243, Start Num: 56

Candidate Starts for CristinaYang_8:

(Start: 56 @6905 has 195 MA's), (68, 6938), (148, 7202),

Gene: CroZenni_9 Start: 7325, Stop: 7654, Start Num: 56

Candidate Starts for CroZenni_9:

(8, 7028), (15, 7085), (34, 7229), (Start: 56 @7325 has 195 MA's), (62, 7340), (137, 7577), (151, 7622),

Gene: Daiboju_8 Start: 6925, Stop: 7263, Start Num: 56

Candidate Starts for Daiboju_8:

(Start: 56 @6925 has 195 MA's), (80, 6997), (119, 7108), (138, 7183), (140, 7192), (155, 7243),

Gene: Daob_11 Start: 7906, Stop: 8247, Start Num: 55

Candidate Starts for Daob_11:

(26, 7774), (37, 7831), (Start: 55 @7906 has 28 MA's), (98, 8032), (105, 8059), (124, 8119), (125, 8122), (130, 8140), (137, 8167), (151, 8218),

Gene: Dardanus_15 Start: 9541, Stop: 9897, Start Num: 56

Candidate Starts for Dardanus_15:

(Start: 56 @9541 has 195 MA's), (68, 9571), (72, 9586), (88, 9643), (96, 9664), (109, 9712), (121, 9736), (127, 9763), (145, 9841), (158, 9886),

Gene: Delian_9 Start: 6959, Stop: 7321, Start Num: 56

Candidate Starts for Delian_9:

(5, 6623), (48, 6932), (Start: 56 @6959 has 195 MA's), (65, 6983), (70, 7001), (72, 7007), (81, 7037), (98, 7088), (117, 7148),

Gene: DickRichards_9 Start: 7819, Stop: 8148, Start Num: 56

Candidate Starts for DickRichards_9:

(Start: 56 @7819 has 195 MA's), (62, 7834), (137, 8071), (151, 8116),

Gene: Didgeridoo_10 Start: 7544, Stop: 7873, Start Num: 56

Candidate Starts for Didgeridoo_10:

(8, 7247), (13, 7289), (15, 7304), (Start: 56 @7544 has 195 MA's), (62, 7559), (129, 7766), (137, 7796), (147, 7829), (151, 7841),

Gene: Dina_9 Start: 6861, Stop: 7205, Start Num: 59

Candidate Starts for Dina_9:

(10, 6570), (Start: 59 @6861 has 8 MA's), (81, 6927), (91, 6960), (98, 6978), (101, 6990), (120, 7047), (133, 7110), (150, 7164), (155, 7185), (157, 7191),

Gene: Dino_12 Start: 9768, Stop: 10106, Start Num: 56

Candidate Starts for Dino_12:

(Start: 56 @9768 has 195 MA's), (100, 9900), (120, 9954), (140, 10035), (148, 10065),

Gene: DinoDaryn_15 Start: 9631, Stop: 9990, Start Num: 56

Candidate Starts for DinoDaryn_15:

(Start: 56 @9631 has 195 MA's), (66, 9658), (68, 9664), (81, 9706), (96, 9757), (109, 9805), (137, 9901), (140, 9913), (149, 9949),

Gene: DirtyBubble_9 Start: 7574, Stop: 7903, Start Num: 56

Candidate Starts for DirtyBubble_9:

(8, 7277), (15, 7334), (Start: 54 @7571 has 1 MA's), (Start: 56 @7574 has 195 MA's), (62, 7589), (129, 7796), (130, 7799), (137, 7826), (151, 7871),

Gene: Dismas_9 Start: 7550, Stop: 7882, Start Num: 54

Candidate Starts for Dismas_9:

(8, 7256), (34, 7457), (Start: 54 @7550 has 1 MA's), (Start: 56 @7553 has 195 MA's), (62, 7568), (81, 7625), (105, 7700), (129, 7775), (137, 7805), (151, 7850),

Gene: Doobus_9 Start: 7556, Stop: 7885, Start Num: 56

Candidate Starts for Doobus_9:

(Start: 56 @7556 has 195 MA's), (62, 7571), (137, 7808), (151, 7853),

Gene: DrParker_8 Start: 6113, Stop: 6460, Start Num: 57

Candidate Starts for DrParker_8:

(21, 5957), (23, 5963), (24, 5966), (25, 5969), (30, 6008), (35, 6017), (36, 6029), (38, 6050), (Start: 57 @6113 has 46 MA's), (68, 6143), (69, 6146), (78, 6176), (81, 6188), (90, 6218), (96, 6230), (120, 6302), (123, 6323), (134, 6365), (142, 6392), (145, 6407), (155, 6440),

Gene: DrRobert_8 Start: 6905, Stop: 7243, Start Num: 56

Candidate Starts for DrRobert_8:

(Start: 56 @6905 has 195 MA's), (68, 6938), (148, 7202),

Gene: DreamTeam_8 Start: 6951, Stop: 7289, Start Num: 56

Candidate Starts for DreamTeam_8:

(Start: 56 @6951 has 195 MA's), (68, 6984), (148, 7248),

Gene: E1_9 Start: 6977, Stop: 7360, Start Num: 47

Candidate Starts for E1_9:

(7, 6722), (14, 6767), (43, 6962), (Start: 47 @6977 has 3 MA's), (60, 7019), (82, 7088), (93, 7124), (101, 7148), (113, 7187), (125, 7229), (137, 7274), (144, 7298), (152, 7331), (153, 7334), (158, 7349),

Gene: Eden_8 Start: 7182, Stop: 7514, Start Num: 56

Candidate Starts for Eden_8:

(Start: 56 @7182 has 195 MA's), (60, 7194), (62, 7197), (74, 7233), (131, 7416),

Gene: Eesa_10 Start: 7902, Stop: 8243, Start Num: 55

Candidate Starts for Eesa_10:

(Start: 55 @7902 has 28 MA's), (Start: 57 @7905 has 46 MA's), (71, 7947), (90, 8010), (92, 8013), (98, 8028), (130, 8136), (137, 8163), (151, 8214),

Gene: Elva_10 Start: 7631, Stop: 7960, Start Num: 56

Candidate Starts for Elva_10:

(8, 7334), (Start: 54 @7628 has 1 MA's), (Start: 56 @7631 has 195 MA's), (62, 7646), (129, 7853), (130, 7856), (137, 7883), (151, 7928),

Gene: Enochoraptor_8 Start: 6109, Stop: 6456, Start Num: 57

Candidate Starts for Enochoraptor_8:

(21, 5953), (23, 5959), (24, 5962), (25, 5965), (30, 6004), (31, 6007), (35, 6013), (38, 6046), (49, 6082), (50, 6085), (Start: 57 @6109 has 46 MA's), (67, 6136), (68, 6139), (69, 6142), (81, 6184), (96, 6226), (120, 6298), (123, 6319), (134, 6361), (141, 6385), (142, 6388), (145, 6403), (155, 6436),

Gene: Enoki_8 Start: 6094, Stop: 6441, Start Num: 57

Candidate Starts for Enoki_8:

(21, 5938), (25, 5950), (35, 5998), (38, 6031), (Start: 57 @6094 has 46 MA's), (68, 6124), (69, 6127), (81, 6169), (90, 6199), (96, 6211), (120, 6283), (134, 6346), (141, 6370), (142, 6373), (145, 6388), (155, 6421),

Gene: EstebanJulior_8 Start: 6949, Stop: 7287, Start Num: 56
Candidate Starts for EstebanJulior_8:
(Start: 56 @6949 has 195 MA's), (68, 6982), (100, 7081), (148, 7246),

Gene: Eula_9 Start: 7323, Stop: 7652, Start Num: 56
Candidate Starts for Eula_9:
(15, 7083), (34, 7227), (Start: 56 @7323 has 195 MA's), (62, 7338), (89, 7422), (137, 7575), (151, 7620), (153, 7626),

Gene: Eunoia_8 Start: 6923, Stop: 7261, Start Num: 56
Candidate Starts for Eunoia_8:
(Start: 56 @6923 has 195 MA's), (68, 6956), (80, 6995), (106, 7076), (138, 7181), (140, 7190),

Gene: EvenBluerMoon_11 Start: 8140, Stop: 8472, Start Num: 56
Candidate Starts for EvenBluerMoon_11:
(Start: 56 @8140 has 195 MA's), (62, 8149),

Gene: Fairfaxidum_9 Start: 6937, Stop: 7305, Start Num: 56
Candidate Starts for Fairfaxidum_9:
(Start: 56 @6937 has 195 MA's), (66, 6961), (68, 6967), (87, 7039), (91, 7054), (98, 7072), (102, 7087), (117, 7132), (120, 7141),

Gene: Fenry_9 Start: 6968, Stop: 7330, Start Num: 56
Candidate Starts for Fenry_9:
(48, 6941), (Start: 56 @6968 has 195 MA's), (65, 6992), (72, 7016), (81, 7046), (91, 7079), (98, 7097), (117, 7157),

Gene: Finalfrontier_10 Start: 7834, Stop: 8163, Start Num: 56
Candidate Starts for Finalfrontier_10:
(15, 7594), (34, 7738), (Start: 56 @7834 has 195 MA's), (62, 7849), (89, 7933), (90, 7936), (129, 8056), (137, 8086), (139, 8095), (151, 8131),

Gene: FlameThrower_9 Start: 7282, Stop: 7611, Start Num: 56
Candidate Starts for FlameThrower_9:
(2, 6853), (8, 6985), (Start: 54 @7279 has 1 MA's), (Start: 56 @7282 has 195 MA's), (62, 7297), (74, 7330), (129, 7504), (137, 7534), (151, 7579), (157, 7597),

Gene: Fluke_12 Start: 9810, Stop: 10148, Start Num: 56
Candidate Starts for Fluke_12:
(Start: 56 @9810 has 195 MA's), (120, 9996), (140, 10077), (148, 10107),

Gene: Franklin22_8 Start: 7163, Stop: 7495, Start Num: 56
Candidate Starts for Franklin22_8:
(Start: 54 @7160 has 1 MA's), (Start: 56 @7163 has 195 MA's), (60, 7175), (62, 7178), (76, 7220), (89, 7265), (98, 7286), (137, 7418),

Gene: Frokostdame_9 Start: 6954, Stop: 7316, Start Num: 56
Candidate Starts for Frokostdame_9:
(5, 6618), (Start: 56 @6954 has 195 MA's), (65, 6978), (72, 7002), (81, 7032), (91, 7065), (98, 7083), (117, 7143),

Gene: Gack_8 Start: 7233, Stop: 7565, Start Num: 56
Candidate Starts for Gack_8:

(Start: 56 @7233 has 195 MA's), (60, 7245), (62, 7248), (68, 7266), (82, 7311), (106, 7386), (137, 7488),

Gene: Galaxy_10 Start: 7711, Stop: 8073, Start Num: 55

Candidate Starts for Galaxy_10:

(Start: 55 @7711 has 28 MA's), (Start: 57 @7714 has 46 MA's), (66, 7738), (87, 7807), (89, 7816), (105, 7864), (107, 7873), (113, 7903), (120, 7921), (123, 7939), (126, 7948), (141, 8008),

Gene: Gambino_9 Start: 6835, Stop: 7194, Start Num: 56

Candidate Starts for Gambino_9:

(5, 6499), (Start: 56 @6835 has 195 MA's), (65, 6859), (70, 6877), (91, 6943), (98, 6961), (117, 7021),

Gene: Ghobes_7 Start: 6056, Stop: 6415, Start Num: 57

Candidate Starts for Ghobes_7:

(Start: 57 @6056 has 46 MA's), (103, 6203), (139, 6338),

Gene: Gisselle_8 Start: 6951, Stop: 7289, Start Num: 56

Candidate Starts for Gisselle_8:

(Start: 56 @6951 has 195 MA's), (68, 6984), (148, 7248),

Gene: Glenn_12 Start: 9820, Stop: 10158, Start Num: 56

Candidate Starts for Glenn_12:

(Start: 56 @9820 has 195 MA's), (120, 10006), (140, 10087), (148, 10117),

Gene: Goib_14 Start: 9406, Stop: 9765, Start Num: 56

Candidate Starts for Goib_14:

(Start: 56 @9406 has 195 MA's), (66, 9433), (68, 9439), (81, 9481), (96, 9532), (109, 9580), (140, 9688), (149, 9724),

Gene: GreenHearts_12 Start: 9892, Stop: 10230, Start Num: 56

Candidate Starts for GreenHearts_12:

(Start: 56 @9892 has 195 MA's), (100, 10024), (121, 10081), (148, 10189),

Gene: Greenhouse_12 Start: 9817, Stop: 10155, Start Num: 56

Candidate Starts for Greenhouse_12:

(Start: 56 @9817 has 195 MA's), (100, 9949), (121, 10006), (138, 10075), (140, 10084), (148, 10114),

Gene: Gspu1_11 Start: 7862, Stop: 8218, Start Num: 56

Candidate Starts for Gspu1_11:

(Start: 56 @7862 has 195 MA's), (65, 7886), (68, 7895), (71, 7907), (86, 7955), (87, 7958), (88, 7964), (112, 8039), (121, 8057), (123, 8072), (130, 8102), (132, 8111), (138, 8132), (140, 8141), (145, 8162), (149, 8177), (157, 8204),

Gene: Guacamole_9 Start: 6963, Stop: 7325, Start Num: 56

Candidate Starts for Guacamole_9:

(5, 6627), (48, 6936), (Start: 56 @6963 has 195 MA's), (65, 6987), (70, 7005), (72, 7011), (81, 7041), (98, 7092), (117, 7152),

Gene: HannahPhantana_11 Start: 7906, Stop: 8247, Start Num: 55

Candidate Starts for HannahPhantana_11:

(26, 7774), (37, 7831), (Start: 55 @7906 has 28 MA's), (98, 8032), (105, 8059), (124, 8119), (125, 8122), (130, 8140), (137, 8167), (151, 8218),

Gene: HeadNerd_8 Start: 6907, Stop: 7245, Start Num: 56

Candidate Starts for HeadNerd_8:

(Start: 56 @6907 has 195 MA's), (68, 6940), (148, 7204),

Gene: Herb_8 Start: 6925, Stop: 7263, Start Num: 56

Candidate Starts for Herb_8:

(Start: 56 @6925 has 195 MA's), (80, 6997), (119, 7108), (138, 7183), (140, 7192), (155, 7243),

Gene: Hitter_9 Start: 6959, Stop: 7321, Start Num: 56

Candidate Starts for Hitter_9:

(5, 6623), (48, 6932), (Start: 56 @6959 has 195 MA's), (65, 6983), (70, 7001), (72, 7007), (81, 7037), (98, 7088), (117, 7148),

Gene: Huckleberry_8 Start: 6907, Stop: 7245, Start Num: 56

Candidate Starts for Huckleberry_8:

(Start: 56 @6907 has 195 MA's), (68, 6940), (148, 7204),

Gene: Huff_15 Start: 9631, Stop: 9990, Start Num: 56

Candidate Starts for Huff_15:

(Start: 56 @9631 has 195 MA's), (66, 9658), (68, 9664), (81, 9706), (96, 9757), (109, 9805), (137, 9901), (140, 9913), (149, 9949),

Gene: HunterDalle_8 Start: 6923, Stop: 7261, Start Num: 56

Candidate Starts for HunterDalle_8:

(Start: 56 @6923 has 195 MA's), (68, 6956), (80, 6995), (106, 7076), (138, 7181), (140, 7190),

Gene: Huntingdon_12 Start: 9803, Stop: 10141, Start Num: 56

Candidate Starts for Huntingdon_12:

(Start: 56 @9803 has 195 MA's), (65, 9827), (121, 9992), (140, 10070), (148, 10100), (155, 10121),

Gene: Icarian_10 Start: 7557, Stop: 7886, Start Num: 56

Candidate Starts for Icarian_10:

(8, 7260), (Start: 54 @7554 has 1 MA's), (Start: 56 @7557 has 195 MA's), (62, 7572), (130, 7782), (137, 7809), (151, 7854),

Gene: Immaculata_12 Start: 9814, Stop: 10152, Start Num: 56

Candidate Starts for Immaculata_12:

(Start: 56 @9814 has 195 MA's), (120, 10000), (140, 10081), (148, 10111),

Gene: IndyLu_9 Start: 7368, Stop: 7697, Start Num: 56

Candidate Starts for IndyLu_9:

(8, 7071), (13, 7113), (15, 7128), (Start: 56 @7368 has 195 MA's), (62, 7383), (129, 7590), (147, 7653), (151, 7665),

Gene: Jalamah_9 Start: 6959, Stop: 7321, Start Num: 56

Candidate Starts for Jalamah_9:

(5, 6623), (48, 6932), (Start: 56 @6959 has 195 MA's), (65, 6983), (70, 7001), (72, 7007), (81, 7037), (91, 7070), (98, 7088), (117, 7148), (127, 7187),

Gene: Jamun_10 Start: 8052, Stop: 8414, Start Num: 55

Candidate Starts for Jamun_10:

(26, 7920), (Start: 55 @8052 has 28 MA's), (Start: 57 @8055 has 46 MA's), (66, 8079), (87, 8148), (89, 8157), (107, 8214), (113, 8244), (120, 8262), (123, 8280), (126, 8289), (141, 8349),

Gene: JanetJ_10 Start: 7922, Stop: 8254, Start Num: 56

Candidate Starts for JanetJ_10:

(Start: 56 @7922 has 195 MA's), (62, 7931),

Gene: JasperJr_9 Start: 6963, Stop: 7325, Start Num: 56

Candidate Starts for JasperJr_9:

(5, 6627), (48, 6936), (Start: 56 @6963 has 195 MA's), (65, 6987), (70, 7005), (72, 7011), (81, 7041), (98, 7092), (117, 7152),

Gene: Joann_12 Start: 9795, Stop: 10133, Start Num: 56

Candidate Starts for Joann_12:

(Start: 56 @9795 has 195 MA's), (100, 9927), (121, 9984), (138, 10053), (140, 10062), (148, 10092),

Gene: Johnathan_9 Start: 7325, Stop: 7654, Start Num: 56

Candidate Starts for Johnathan_9:

(Start: 56 @7325 has 195 MA's), (62, 7340), (137, 7577), (151, 7622),

Gene: Jovita_9 Start: 7424, Stop: 7753, Start Num: 56

Candidate Starts for Jovita_9:

(15, 7184), (34, 7328), (Start: 56 @7424 has 195 MA's), (62, 7439), (89, 7523), (137, 7676), (151, 7721), (153, 7727),

Gene: JuJu_9 Start: 6884, Stop: 7246, Start Num: 56

Candidate Starts for JuJu_9:

(5, 6548), (Start: 56 @6884 has 195 MA's), (65, 6908), (72, 6932), (81, 6962), (91, 6995), (98, 7013), (117, 7073),

Gene: Jumboset_12 Start: 9763, Stop: 10101, Start Num: 56

Candidate Starts for Jumboset_12:

(20, 9598), (Start: 56 @9763 has 195 MA's), (120, 9949), (140, 10030), (148, 10060),

Gene: Juno112_9 Start: 7313, Stop: 7651, Start Num: 55

Candidate Starts for Juno112_9:

(9, 7019), (18, 7106), (27, 7190), (46, 7274), (Start: 55 @7313 has 28 MA's), (71, 7358), (79, 7382), (92, 7424), (98, 7439), (113, 7484), (116, 7490), (124, 7523), (137, 7571), (142, 7589),

Gene: KHumphrey_9 Start: 7312, Stop: 7650, Start Num: 55

Candidate Starts for KHumphrey_9:

(9, 7018), (18, 7105), (27, 7189), (46, 7273), (Start: 55 @7312 has 28 MA's), (71, 7357), (79, 7381), (92, 7423), (98, 7438), (113, 7483), (116, 7489), (124, 7522), (137, 7570), (142, 7588),

Gene: Kalizoi_12 Start: 9762, Stop: 10100, Start Num: 56

Candidate Starts for Kalizoi_12:

(Start: 56 @9762 has 195 MA's), (100, 9894), (120, 9948), (140, 10029), (148, 10059),

Gene: KappaFarmDelta_9 Start: 6997, Stop: 7359, Start Num: 56

Candidate Starts for KappaFarmDelta_9:

(48, 6970), (Start: 56 @6997 has 195 MA's), (65, 7021), (72, 7045), (81, 7075), (91, 7108), (98, 7126), (117, 7186), (127, 7225),

Gene: Katzastrophic_9 Start: 7457, Stop: 7786, Start Num: 56

Candidate Starts for Katzastrophic_9:

(Start: 54 @7454 has 1 MA's), (Start: 56 @7457 has 195 MA's), (62, 7472), (74, 7505), (129, 7679), (137, 7709), (151, 7754), (157, 7772),

Gene: Keiki_8 Start: 6106, Stop: 6453, Start Num: 57

Candidate Starts for Keiki_8:

(35, 6010), (38, 6043), (Start: 57 @6106 has 46 MA's), (68, 6136), (69, 6139), (90, 6211), (96, 6223), (120, 6295), (123, 6316), (134, 6358), (141, 6382), (142, 6385), (145, 6400), (155, 6433),

Gene: Kenzers_9 Start: 7339, Stop: 7668, Start Num: 56

Candidate Starts for Kenzers_9:

(15, 7099), (34, 7243), (Start: 56 @7339 has 195 MA's), (62, 7354), (137, 7591), (151, 7636), (153, 7642),

Gene: Kepler_10 Start: 7741, Stop: 8082, Start Num: 55

Candidate Starts for Kepler_10:

(26, 7609), (37, 7666), (Start: 55 @7741 has 28 MA's), (98, 7867), (105, 7894), (124, 7954), (125, 7957), (130, 7975), (137, 8002), (151, 8053),

Gene: Khuang_8 Start: 6379, Stop: 6729, Start Num: 56

Candidate Starts for Khuang_8:

(13, 6124), (52, 6367), (Start: 56 @6379 has 195 MA's), (67, 6406), (74, 6427), (97, 6502), (118, 6568), (123, 6592), (137, 6643), (141, 6658), (143, 6661), (159, 6721),

Gene: Kieran_9 Start: 7556, Stop: 7885, Start Num: 56

Candidate Starts for Kieran_9:

(8, 7259), (34, 7460), (Start: 54 @7553 has 1 MA's), (Start: 56 @7556 has 195 MA's), (62, 7571), (81, 7628), (87, 7646), (105, 7703), (129, 7778), (137, 7808), (151, 7853),

Gene: KingBob_8 Start: 6925, Stop: 7263, Start Num: 56

Candidate Starts for KingBob_8:

(Start: 56 @6925 has 195 MA's), (80, 6997), (119, 7108), (138, 7183), (140, 7192), (155, 7243),

Gene: Kittykat_8 Start: 6948, Stop: 7286, Start Num: 56

Candidate Starts for Kittykat_8:

(Start: 56 @6948 has 195 MA's), (148, 7245),

Gene: Korra_12 Start: 9768, Stop: 10106, Start Num: 56

Candidate Starts for Korra_12:

(Start: 56 @9768 has 195 MA's), (100, 9900), (120, 9954), (140, 10035), (148, 10065),

Gene: Kromp_10 Start: 8334, Stop: 8675, Start Num: 55

Candidate Starts for Kromp_10:

(19, 8160), (Start: 55 @8334 has 28 MA's), (114, 8508),

Gene: Kubed_8 Start: 6096, Stop: 6443, Start Num: 57

Candidate Starts for Kubed_8:

(33, 5997), (38, 6033), (Start: 57 @6096 has 46 MA's), (68, 6126), (69, 6129), (81, 6171), (90, 6201), (96, 6213), (120, 6285), (134, 6348), (141, 6372), (142, 6375), (145, 6390), (155, 6423),

Gene: Kuleana_10 Start: 7701, Stop: 8042, Start Num: 55

Candidate Starts for Kuleana_10:

(Start: 55 @7701 has 28 MA's), (68, 7734), (90, 7809), (92, 7812), (98, 7827), (104, 7851), (105, 7854), (113, 7875), (124, 7914), (130, 7935), (137, 7962), (142, 7980), (151, 8013),

Gene: Kumotta_10 Start: 7839, Stop: 8171, Start Num: 56

Candidate Starts for Kumotta_10:

(Start: 56 @7839 has 195 MA's), (62, 7848), (66, 7860), (67, 7863), (110, 8004), (116, 8019), (127, 8064), (137, 8088), (155, 8151), (158, 8160),

Gene: Lahqtemish_9 Start: 7412, Stop: 7741, Start Num: 56

Candidate Starts for Lahqtemish_9:

(Start: 56 @7412 has 195 MA's), (62, 7427), (129, 7634), (137, 7664), (147, 7697), (151, 7709),

Gene: Lakshmi_12 Start: 9822, Stop: 10160, Start Num: 56

Candidate Starts for Lakshmi_12:

(Start: 56 @9822 has 195 MA's), (100, 9954), (121, 10011), (148, 10119),

Gene: Lasagna_8 Start: 6905, Stop: 7243, Start Num: 56

Candidate Starts for Lasagna_8:

(Start: 56 @6905 has 195 MA's), (68, 6938), (148, 7202),

Gene: Lauchelly_8 Start: 6091, Stop: 6438, Start Num: 57

Candidate Starts for Lauchelly_8:

(21, 5935), (25, 5947), (35, 5995), (38, 6028), (50, 6067), (Start: 57 @6091 has 46 MA's), (68, 6121), (69, 6124), (90, 6196), (96, 6208), (134, 6343), (141, 6367), (142, 6370), (145, 6385), (155, 6418),

Gene: Lederberg_9 Start: 6861, Stop: 7205, Start Num: 59

Candidate Starts for Lederberg_9:

(10, 6570), (Start: 59 @6861 has 8 MA's), (81, 6927), (91, 6960), (98, 6978), (101, 6990), (120, 7047), (133, 7110), (150, 7164), (155, 7185), (157, 7191),

Gene: Lennox_8 Start: 6905, Stop: 7243, Start Num: 56

Candidate Starts for Lennox_8:

(Start: 56 @6905 has 195 MA's), (68, 6938), (148, 7202),

Gene: Leona_9 Start: 7363, Stop: 7701, Start Num: 55

Candidate Starts for Leona_9:

(27, 7240), (Start: 55 @7363 has 28 MA's), (71, 7408), (79, 7432), (92, 7474), (98, 7489), (113, 7534), (116, 7540), (124, 7573), (137, 7621), (142, 7639),

Gene: Leviosa_8 Start: 6112, Stop: 6459, Start Num: 57

Candidate Starts for Leviosa_8:

(21, 5956), (25, 5968), (35, 6016), (38, 6049), (50, 6088), (Start: 57 @6112 has 46 MA's), (68, 6142), (69, 6145), (78, 6175), (81, 6187), (90, 6217), (96, 6229), (98, 6235), (120, 6301), (123, 6322), (134, 6364), (141, 6388), (142, 6391), (145, 6406), (155, 6439),

Gene: LilBandit_8 Start: 6096, Stop: 6443, Start Num: 57

Candidate Starts for LilBandit_8:

(38, 6033), (Start: 57 @6096 has 46 MA's), (68, 6126), (69, 6129), (81, 6171), (90, 6201), (96, 6213), (120, 6285), (123, 6306), (134, 6348), (142, 6375), (145, 6390), (155, 6423),

Gene: LilStuart_8 Start: 6905, Stop: 7243, Start Num: 56

Candidate Starts for LilStuart_8:

(Start: 56 @6905 has 195 MA's), (68, 6938), (148, 7202),

Gene: LimaBean_9 Start: 7325, Stop: 7654, Start Num: 56

Candidate Starts for LimaBean_9:

(Start: 56 @7325 has 195 MA's), (62, 7340), (137, 7577), (151, 7622),

Gene: Litotes_12 Start: 9790, Stop: 10128, Start Num: 56

Candidate Starts for Litotes_12:

(Start: 56 @9790 has 195 MA's), (68, 9823),

Gene: LittleTokyo_10 Start: 7645, Stop: 7983, Start Num: 55

Candidate Starts for LittleTokyo_10:

(4, 7219), (12, 7372), (37, 7570), (42, 7594), (Start: 55 @7645 has 28 MA's), (71, 7690), (90, 7753), (98, 7771), (105, 7798), (120, 7834), (125, 7858), (137, 7903), (151, 7954), (156, 7969),

Gene: Loviatar_16 Start: 7578, Stop: 7907, Start Num: 56

Candidate Starts for Loviatar_16:

(8, 7281), (Start: 54 @7575 has 1 MA's), (Start: 56 @7578 has 195 MA's), (62, 7593), (130, 7803), (137, 7830), (139, 7839), (147, 7863), (151, 7875),

Gene: Lucy_8 Start: 6896, Stop: 7234, Start Num: 56

Candidate Starts for Lucy_8:

(Start: 56 @6896 has 195 MA's), (68, 6929), (148, 7193),

Gene: Lunar_11 Start: 7903, Stop: 8244, Start Num: 55

Candidate Starts for Lunar_11:

(26, 7771), (37, 7828), (Start: 55 @7903 has 28 MA's), (98, 8029), (105, 8056), (124, 8116), (125, 8119), (130, 8137), (137, 8164), (151, 8215),

Gene: Lynlen_9 Start: 7339, Stop: 7668, Start Num: 56

Candidate Starts for Lynlen_9:

(15, 7099), (34, 7243), (Start: 56 @7339 has 195 MA's), (62, 7354), (137, 7591), (151, 7636), (153, 7642),

Gene: Lysidious_9 Start: 6959, Stop: 7321, Start Num: 56

Candidate Starts for Lysidious_9:

(5, 6623), (48, 6932), (Start: 56 @6959 has 195 MA's), (65, 6983), (70, 7001), (72, 7007), (81, 7037), (98, 7088), (117, 7148),

Gene: MEAK_8 Start: 6098, Stop: 6445, Start Num: 57

Candidate Starts for MEAK_8:

(38, 6035), (50, 6074), (Start: 57 @6098 has 46 MA's), (68, 6128), (69, 6131), (90, 6203), (96, 6215), (120, 6287), (123, 6308), (134, 6350), (142, 6377), (145, 6392), (155, 6425),

Gene: Maja_9 Start: 7424, Stop: 7792, Start Num: 56

Candidate Starts for Maja_9:

(Start: 56 @7424 has 195 MA's), (62, 7433), (116, 7607), (117, 7610), (126, 7649), (127, 7652), (132, 7685), (137, 7709), (155, 7772), (158, 7781),

Gene: Makoto_8 Start: 6905, Stop: 7243, Start Num: 56

Candidate Starts for Makoto_8:

(Start: 56 @6905 has 195 MA's), (68, 6938), (148, 7202),

Gene: Malachai_9 Start: 6962, Stop: 7324, Start Num: 56

Candidate Starts for Malachai_9:

(5, 6626), (48, 6935), (Start: 56 @6962 has 195 MA's), (65, 6986), (70, 7004), (72, 7010), (81, 7040), (91, 7073), (98, 7091), (117, 7151),

Gene: MamaPearl_8 Start: 6949, Stop: 7287, Start Num: 56

Candidate Starts for MamaPearl_8:

(Start: 56 @6949 has 195 MA's), (68, 6982), (100, 7081), (148, 7246),

Gene: MargaretKali_10 Start: 7474, Stop: 7806, Start Num: 56

Candidate Starts for MargaretKali_10:

(Start: 56 @7474 has 195 MA's), (62, 7483), (66, 7495), (110, 7639), (116, 7654), (122, 7678), (127, 7699), (155, 7786), (158, 7795),

Gene: Maria1952_8 Start: 6925, Stop: 7263, Start Num: 56

Candidate Starts for Maria1952_8:

(Start: 56 @6925 has 195 MA's), (80, 6997), (119, 7108), (138, 7183), (140, 7192), (155, 7243),

Gene: MeganNoll_12 Start: 9820, Stop: 10158, Start Num: 56

Candidate Starts for MeganNoll_12:

(20, 9655), (Start: 56 @9820 has 195 MA's), (120, 10006), (140, 10087), (148, 10117),

Gene: Melba_9 Start: 6959, Stop: 7321, Start Num: 56

Candidate Starts for Melba_9:

(5, 6623), (48, 6932), (Start: 56 @6959 has 195 MA's), (65, 6983), (70, 7001), (72, 7007), (81, 7037), (98, 7088), (117, 7148),

Gene: Mellie_9 Start: 6959, Stop: 7321, Start Num: 56

Candidate Starts for Mellie_9:

(5, 6623), (48, 6932), (Start: 56 @6959 has 195 MA's), (65, 6983), (70, 7001), (72, 7007), (81, 7037), (91, 7070), (98, 7088), (117, 7148),

Gene: Melons_11 Start: 7903, Stop: 8244, Start Num: 55

Candidate Starts for Melons_11:

(26, 7771), (37, 7828), (Start: 55 @7903 has 28 MA's), (98, 8029), (105, 8056), (124, 8116), (125, 8119), (130, 8137), (137, 8164), (151, 8215),

Gene: MintFen_9 Start: 6959, Stop: 7321, Start Num: 56

Candidate Starts for MintFen_9:

(5, 6623), (48, 6932), (Start: 56 @6959 has 195 MA's), (65, 6983), (70, 7001), (72, 7007), (81, 7037), (98, 7088), (117, 7148),

Gene: Misaeng_12 Start: 9868, Stop: 10206, Start Num: 56

Candidate Starts for Misaeng_12:

(Start: 56 @9868 has 195 MA's), (121, 10057), (140, 10135), (148, 10165), (155, 10186),

Gene: MissRona_9 Start: 6835, Stop: 7194, Start Num: 56

Candidate Starts for MissRona_9:

(5, 6499), (Start: 56 @6835 has 195 MA's), (65, 6859), (70, 6877), (91, 6943), (98, 6961), (117, 7021),

Gene: Moki_8 Start: 6907, Stop: 7245, Start Num: 56

Candidate Starts for Moki_8:

(Start: 56 @6907 has 195 MA's), (68, 6940), (148, 7204),

Gene: Moyashi_8 Start: 6116, Stop: 6463, Start Num: 57

Candidate Starts for Moyashi_8:

(21, 5960), (23, 5966), (24, 5969), (25, 5972), (30, 6011), (35, 6020), (38, 6053), (Start: 57 @6116 has 46 MA's), (68, 6146), (69, 6149), (81, 6191), (90, 6221), (96, 6233), (120, 6305), (123, 6326), (134, 6368), (142, 6395), (145, 6410), (155, 6443),

Gene: MrAK_8 Start: 6125, Stop: 6472, Start Num: 57

Candidate Starts for MrAK_8:

(38, 6062), (Start: 57 @6125 has 46 MA's), (68, 6155), (69, 6158), (81, 6200), (90, 6230), (96, 6242), (120, 6314), (134, 6377), (142, 6404), (145, 6419), (155, 6452),

Gene: MrGloopy_12 Start: 9753, Stop: 10091, Start Num: 56

Candidate Starts for MrGloopy_12:

(Start: 56 @9753 has 195 MA's), (140, 10020), (148, 10050),

Gene: Murp_9 Start: 7000, Stop: 7362, Start Num: 56

Candidate Starts for Murp_9:

(5, 6664), (48, 6973), (Start: 56 @7000 has 195 MA's), (65, 7024), (72, 7048), (81, 7078), (91, 7111), (117, 7189),

Gene: Nancia_8 Start: 6905, Stop: 7243, Start Num: 56

Candidate Starts for Nancia_8:

(Start: 56 @6905 has 195 MA's), (68, 6938), (148, 7202),

Gene: Nesbitt_9 Start: 7263, Stop: 7604, Start Num: 55

Candidate Starts for Nesbitt_9:

(Start: 55 @7263 has 28 MA's), (61, 7275), (130, 7497), (133, 7512), (151, 7572), (158, 7593),

Gene: Nicky22_10 Start: 7773, Stop: 8102, Start Num: 56

Candidate Starts for Nicky22_10:

(15, 7533), (34, 7677), (Start: 56 @7773 has 195 MA's), (62, 7788), (89, 7872), (129, 7995), (137, 8025), (151, 8070),

Gene: Nubia_12 Start: 9782, Stop: 10120, Start Num: 56

Candidate Starts for Nubia_12:

(Start: 56 @9782 has 195 MA's), (100, 9914), (121, 9971), (138, 10040), (140, 10049), (148, 10079),

Gene: OMalley_8 Start: 6923, Stop: 7261, Start Num: 56

Candidate Starts for OMalley_8:

(Start: 56 @6923 has 195 MA's), (68, 6956), (80, 6995), (106, 7076), (138, 7181), (140, 7190),

Gene: Obliviate_9 Start: 6983, Stop: 7345, Start Num: 56

Candidate Starts for Obliviate_9:

(5, 6647), (48, 6956), (Start: 56 @6983 has 195 MA's), (65, 7007), (72, 7031), (81, 7061), (91, 7094), (98, 7112), (117, 7172),

Gene: Orcanus_10 Start: 7692, Stop: 8033, Start Num: 55

Candidate Starts for Orcanus_10:

(Start: 55 @7692 has 28 MA's), (Start: 57 @7695 has 46 MA's), (71, 7737), (90, 7800), (92, 7803), (98, 7818), (130, 7926), (137, 7953), (151, 8004), (153, 8010),

Gene: OurGirlNessie_8 Start: 6896, Stop: 7234, Start Num: 56

Candidate Starts for OurGirlNessie_8:

(Start: 56 @6896 has 195 MA's), (68, 6929), (148, 7193),

Gene: Ouroboros_8 Start: 6099, Stop: 6446, Start Num: 57

Candidate Starts for Ouroboros_8:

(38, 6036), (49, 6072), (50, 6075), (Start: 57 @6099 has 46 MA's), (68, 6129), (69, 6132), (90, 6204), (96, 6216), (120, 6288), (123, 6309), (134, 6351), (142, 6378), (145, 6393), (155, 6426),

Gene: Oxynfrius_12 Start: 9795, Stop: 10133, Start Num: 56

Candidate Starts for Oxynfrius_12:

(Start: 56 @9795 has 195 MA's), (100, 9927), (121, 9984), (148, 10092),

Gene: P1.1_8 Start: 6099, Stop: 6446, Start Num: 57

Candidate Starts for P1.1_8:

(21, 5943), (23, 5949), (24, 5952), (25, 5955), (30, 5994), (35, 6003), (38, 6036), (Start: 57 @6099 has 46 MA's), (69, 6132), (90, 6204), (96, 6216), (120, 6288), (123, 6309), (134, 6351), (141, 6375), (142, 6378), (145, 6393), (155, 6426),

Gene: P100.1_8 Start: 6089, Stop: 6436, Start Num: 57

Candidate Starts for P100.1_8:

(38, 6026), (Start: 57 @6089 has 46 MA's), (68, 6119), (69, 6122), (81, 6164), (90, 6194), (96, 6206), (120, 6278), (134, 6341), (142, 6368), (145, 6383), (155, 6416),

Gene: P100A_8 Start: 6111, Stop: 6458, Start Num: 57

Candidate Starts for P100A_8:

(36, 6027), (38, 6048), (49, 6084), (50, 6087), (Start: 57 @6111 has 46 MA's), (68, 6141), (69, 6144), (90, 6216), (96, 6228), (101, 6246), (120, 6300), (121, 6303), (134, 6363), (141, 6387), (142, 6390), (145, 6405), (155, 6438),

Gene: P100D_8 Start: 6093, Stop: 6440, Start Num: 57

Candidate Starts for P100D_8:

(38, 6030), (Start: 57 @6093 has 46 MA's), (68, 6123), (69, 6126), (81, 6168), (90, 6198), (96, 6210), (120, 6282), (134, 6345), (141, 6369), (142, 6372), (145, 6387), (155, 6420),

Gene: P101A_8 Start: 6092, Stop: 6439, Start Num: 57

Candidate Starts for P101A_8:

(21, 5936), (23, 5942), (24, 5945), (25, 5948), (30, 5987), (35, 5996), (38, 6029), (Start: 57 @6092 has 46 MA's), (68, 6122), (69, 6125), (81, 6167), (90, 6197), (96, 6209), (120, 6281), (134, 6344), (141, 6368), (142, 6371), (145, 6386), (155, 6419),

Gene: P104A_8 Start: 6094, Stop: 6441, Start Num: 57

Candidate Starts for P104A_8:

(38, 6031), (Start: 57 @6094 has 46 MA's), (68, 6124), (69, 6127), (81, 6169), (90, 6199), (96, 6211), (120, 6283), (134, 6346), (142, 6373), (145, 6388), (155, 6421),

Gene: P104B_8 Start: 6098, Stop: 6445, Start Num: 57

Candidate Starts for P104B_8:

(38, 6035), (Start: 57 @6098 has 46 MA's), (68, 6128), (69, 6131), (90, 6203), (96, 6215), (120, 6287), (123, 6308), (134, 6350), (141, 6374), (142, 6377), (145, 6392), (155, 6425),

Gene: P105_8 Start: 6088, Stop: 6435, Start Num: 57

Candidate Starts for P105_8:

(38, 6025), (Start: 57 @6088 has 46 MA's), (68, 6118), (69, 6121), (81, 6163), (90, 6193), (96, 6205), (120, 6277), (123, 6298), (133, 6337), (134, 6340), (141, 6364), (142, 6367), (145, 6382), (155, 6415),

Gene: P106A_8 Start: 6116, Stop: 6463, Start Num: 57

Candidate Starts for P106A_8:

(21, 5960), (23, 5966), (24, 5969), (25, 5972), (35, 6020), (38, 6053), (Start: 57 @6116 has 46 MA's), (68, 6146), (69, 6149), (81, 6191), (90, 6221), (96, 6233), (120, 6305), (123, 6326), (134, 6368), (142, 6395), (145, 6410), (155, 6443),

Gene: P106C_8 Start: 6116, Stop: 6463, Start Num: 57

Candidate Starts for P106C_8:

(21, 5960), (23, 5966), (24, 5969), (25, 5972), (35, 6020), (38, 6053), (Start: 57 @6116 has 46 MA's), (68, 6146), (69, 6149), (81, 6191), (90, 6221), (96, 6233), (120, 6305), (123, 6326), (134, 6368), (142, 6395), (145, 6410), (155, 6443),

Gene: P106I_8 Start: 6116, Stop: 6463, Start Num: 57

Candidate Starts for P106I_8:

(21, 5960), (23, 5966), (24, 5969), (25, 5972), (35, 6020), (38, 6053), (Start: 57 @6116 has 46 MA's), (68, 6146), (69, 6149), (81, 6191), (90, 6221), (96, 6233), (120, 6305), (123, 6326), (134, 6368), (142, 6395), (145, 6410), (155, 6443),

Gene: P106L_8 Start: 6116, Stop: 6463, Start Num: 57

Candidate Starts for P106L_8:

(21, 5960), (23, 5966), (24, 5969), (25, 5972), (35, 6020), (38, 6053), (Start: 57 @6116 has 46 MA's), (68, 6146), (69, 6149), (81, 6191), (90, 6221), (96, 6233), (120, 6305), (123, 6326), (134, 6368), (142, 6395), (145, 6410), (155, 6443),

Gene: P106M_8 Start: 6116, Stop: 6463, Start Num: 57

Candidate Starts for P106M_8:

(21, 5960), (23, 5966), (24, 5969), (25, 5972), (35, 6020), (38, 6053), (Start: 57 @6116 has 46 MA's), (68, 6146), (69, 6149), (81, 6191), (90, 6221), (96, 6233), (120, 6305), (123, 6326), (134, 6368), (142, 6395), (145, 6410), (155, 6443),

Gene: P107A_8 Start: 6102, Stop: 6449, Start Num: 57

Candidate Starts for P107A_8:

(38, 6039), (50, 6078), (Start: 57 @6102 has 46 MA's), (68, 6132), (69, 6135), (90, 6207), (96, 6219), (101, 6237), (120, 6291), (121, 6294), (123, 6312), (134, 6354), (141, 6378), (142, 6381), (145, 6396), (155, 6429),

Gene: P107C_8 Start: 6098, Stop: 6445, Start Num: 57

Candidate Starts for P107C_8:

(38, 6035), (Start: 57 @6098 has 46 MA's), (68, 6128), (69, 6131), (81, 6173), (90, 6203), (96, 6215), (120, 6287), (123, 6308), (134, 6350), (141, 6374), (142, 6377), (145, 6392), (155, 6425),

Gene: P108C_8 Start: 6102, Stop: 6449, Start Num: 57

Candidate Starts for P108C_8:

(38, 6039), (Start: 57 @6102 has 46 MA's), (68, 6132), (69, 6135), (81, 6177), (96, 6219), (120, 6291), (123, 6312), (134, 6354), (141, 6378), (142, 6381), (145, 6396), (155, 6429),

Gene: P14.4_8 Start: 6093, Stop: 6440, Start Num: 57

Candidate Starts for P14.4_8:

(38, 6030), (Start: 57 @6093 has 46 MA's), (68, 6123), (69, 6126), (81, 6168), (90, 6198), (96, 6210), (120, 6282), (123, 6303), (134, 6345), (142, 6372), (145, 6387), (155, 6420),

Gene: P9.1_8 Start: 6091, Stop: 6438, Start Num: 57

Candidate Starts for P9.1_8:

(Start: 57 @6091 has 46 MA's), (68, 6121), (69, 6124), (81, 6166), (90, 6196), (96, 6208), (120, 6280), (123, 6301), (134, 6343), (141, 6367), (142, 6370), (145, 6385), (155, 6418),

Gene: PA6_8 Start: 6101, Stop: 6448, Start Num: 57

Candidate Starts for PA6_8:

(38, 6038), (49, 6074), (Start: 57 @6101 has 46 MA's), (68, 6131), (69, 6134), (81, 6176), (90, 6206), (96, 6218), (120, 6290), (123, 6311), (133, 6350), (142, 6380), (145, 6395), (155, 6428),

Gene: PAD20_8 Start: 6099, Stop: 6446, Start Num: 57

Candidate Starts for PAD20_8:

(Start: 57 @6099 has 46 MA's), (68, 6129), (69, 6132), (90, 6204), (96, 6216), (120, 6288), (134, 6351), (141, 6375), (142, 6378), (145, 6393), (155, 6426),

Gene: PAS50_8 Start: 6096, Stop: 6443, Start Num: 57

Candidate Starts for PAS50_8:

(38, 6033), (Start: 57 @6096 has 46 MA's), (68, 6126), (69, 6129), (81, 6171), (90, 6201), (96, 6213), (101, 6231), (120, 6285), (123, 6306), (134, 6348), (141, 6372), (142, 6375), (145, 6390), (155, 6423),

Gene: PCoral7_9 Start: 6937, Stop: 7305, Start Num: 56

Candidate Starts for PCoral7_9:

(5, 6607), (Start: 56 @6937 has 195 MA's), (66, 6961), (68, 6967), (87, 7039), (91, 7054), (98, 7072), (117, 7132), (120, 7141),

Gene: PHL010M04_08 Start: 6091, Stop: 6438, Start Num: 57

Candidate Starts for PHL010M04_08:

(21, 5935), (23, 5941), (25, 5947), (30, 5986), (35, 5995), (38, 6028), (Start: 57 @6091 has 46 MA's), (68, 6121), (69, 6124), (90, 6196), (96, 6208), (101, 6226), (120, 6280), (134, 6343), (141, 6367), (142, 6370), (145, 6385), (155, 6418),

Gene: PHL037M02_08 Start: 6097, Stop: 6444, Start Num: 57

Candidate Starts for PHL037M02_08:

(38, 6034), (Start: 57 @6097 has 46 MA's), (68, 6127), (69, 6130), (78, 6160), (90, 6202), (96, 6214), (120, 6286), (123, 6307), (133, 6346), (134, 6349), (142, 6376), (145, 6391), (155, 6424),

Gene: PHL060L00_08 Start: 6089, Stop: 6436, Start Num: 57

Candidate Starts for PHL060L00_08:

(21, 5933), (23, 5939), (24, 5942), (25, 5945), (30, 5984), (35, 5993), (38, 6026), (Start: 57 @6089 has 46 MA's), (68, 6119), (69, 6122), (81, 6164), (90, 6194), (96, 6206), (120, 6278), (123, 6299), (134, 6341), (141, 6365), (142, 6368), (145, 6383), (155, 6416),

Gene: PHL067M10_08 Start: 6093, Stop: 6440, Start Num: 57

Candidate Starts for PHL067M10_08:

(38, 6030), (Start: 57 @6093 has 46 MA's), (68, 6123), (69, 6126), (81, 6168), (90, 6198), (96, 6210), (120, 6282), (133, 6342), (134, 6345), (142, 6372), (145, 6387), (155, 6420),

Gene: PHL071N05_08 Start: 6095, Stop: 6442, Start Num: 57

Candidate Starts for PHL071N05_08:

(38, 6032), (Start: 57 @6095 has 46 MA's), (68, 6125), (69, 6128), (81, 6170), (96, 6212), (120, 6284), (123, 6305), (134, 6347), (141, 6371), (142, 6374), (145, 6389), (155, 6422),

Gene: PHL111M01_08 Start: 6099, Stop: 6446, Start Num: 57

Candidate Starts for PHL111M01_08:

(38, 6036), (Start: 57 @6099 has 46 MA's), (68, 6129), (69, 6132), (90, 6204), (96, 6216), (120, 6288), (134, 6351), (141, 6375), (142, 6378), (145, 6393), (155, 6426),

Gene: PHL112N00_08 Start: 6099, Stop: 6446, Start Num: 57

Candidate Starts for PHL112N00_08:

(38, 6036), (40, 6039), (Start: 57 @6099 has 46 MA's), (68, 6129), (69, 6132), (90, 6204), (96, 6216), (120, 6288), (123, 6309), (133, 6348), (134, 6351), (142, 6378), (145, 6393), (155, 6426),

Gene: PHL113M01_08 Start: 6099, Stop: 6446, Start Num: 57

Candidate Starts for PHL113M01_08:

(38, 6036), (Start: 57 @6099 has 46 MA's), (68, 6129), (69, 6132), (90, 6204), (96, 6216), (120, 6288), (123, 6309), (134, 6351), (142, 6378), (145, 6393), (155, 6426),

Gene: PHL114L00_08 Start: 6098, Stop: 6445, Start Num: 57

Candidate Starts for PHL114L00_08:

(22, 5945), (24, 5951), (25, 5954), (30, 5993), (31, 5996), (38, 6035), (50, 6074), (Start: 57 @6098 has 46 MA's), (67, 6125), (68, 6128), (69, 6131), (81, 6173), (90, 6203), (96, 6215), (134, 6350), (142, 6377), (145, 6392), (155, 6425),

Gene: PartyCup_12 Start: 9837, Stop: 10175, Start Num: 56

Candidate Starts for PartyCup_12:

(Start: 56 @9837 has 195 MA's), (68, 9870),

Gene: Petra_9 Start: 6865, Stop: 7227, Start Num: 56

Candidate Starts for Petra_9:

(5, 6529), (6, 6553), (Start: 56 @6865 has 195 MA's), (65, 6889), (72, 6913), (81, 6943), (91, 6976), (98, 6994), (117, 7054),

Gene: Phisb_9 Start: 7316, Stop: 7645, Start Num: 56

Candidate Starts for Phisb_9:

(15, 7076), (34, 7220), (Start: 56 @7316 has 195 MA's), (62, 7331), (137, 7568), (151, 7613), (153, 7619),

Gene: PhluffyCoco_9 Start: 7312, Stop: 7650, Start Num: 55

Candidate Starts for PhluffyCoco_9:

(9, 7018), (18, 7105), (27, 7189), (46, 7273), (Start: 55 @7312 has 28 MA's), (71, 7357), (79, 7381), (92, 7423), (98, 7438), (113, 7483), (116, 7489), (124, 7522), (137, 7570),

Gene: PhrostedPhlake_9 Start: 7040, Stop: 7402, Start Num: 56

Candidate Starts for PhrostedPhlake_9:

(5, 6704), (Start: 56 @7040 has 195 MA's), (65, 7064), (72, 7088), (81, 7118), (91, 7151), (98, 7169), (117, 7229),

Gene: PinkFriday_8 Start: 6926, Stop: 7264, Start Num: 56

Candidate Starts for PinkFriday_8:

(3, 6494), (13, 6674), (14, 6680), (Start: 56 @6926 has 195 MA's), (80, 6998), (85, 7013), (138, 7184), (155, 7244),

Gene: Pipp_10 Start: 7195, Stop: 7557, Start Num: 56

Candidate Starts for Pipp_10:

(11, 6931), (28, 7093), (50, 7174), (Start: 56 @7195 has 195 MA's), (65, 7219), (72, 7243), (81, 7273), (91, 7306), (98, 7324), (117, 7384), (127, 7423),

Gene: Pirate_8 Start: 6091, Stop: 6438, Start Num: 57

Candidate Starts for Pirate_8:

(38, 6028), (Start: 57 @6091 has 46 MA's), (68, 6121), (69, 6124), (81, 6166), (96, 6208), (120, 6280), (123, 6301), (134, 6343), (141, 6367), (142, 6370), (145, 6385), (155, 6418),

Gene: PitaDog_8 Start: 6896, Stop: 7234, Start Num: 56

Candidate Starts for PitaDog_8:

(Start: 56 @6896 has 195 MA's), (68, 6929), (148, 7193),

Gene: Polka_10 Start: 7742, Stop: 8083, Start Num: 55

Candidate Starts for Polka_10:

(26, 7610), (37, 7667), (Start: 55 @7742 has 28 MA's), (98, 7868), (105, 7895), (124, 7955), (125, 7958), (130, 7976), (137, 8003), (151, 8054),

Gene: Potatoes_12 Start: 9814, Stop: 10152, Start Num: 56

Candidate Starts for Potatoes_12:

(Start: 56 @9814 has 195 MA's), (120, 10000), (140, 10081), (148, 10111),

Gene: Preamble_8 Start: 6906, Stop: 7244, Start Num: 56

Candidate Starts for Preamble_8:

(3, 6477), (13, 6657), (14, 6663), (Start: 56 @6906 has 195 MA's), (148, 7203),

Gene: PrincePatrick_9 Start: 6938, Stop: 7306, Start Num: 56

Candidate Starts for PrincePatrick_9:

(Start: 56 @6938 has 195 MA's), (66, 6962), (68, 6968), (87, 7040), (91, 7055), (98, 7073), (102, 7088), (117, 7133), (120, 7142),

Gene: Procrass1_8 Start: 6098, Stop: 6445, Start Num: 57

Candidate Starts for Procrass1_8:

(38, 6035), (Start: 57 @6098 has 46 MA's), (68, 6128), (69, 6131), (90, 6203), (96, 6215), (120, 6287), (123, 6308), (134, 6350), (141, 6374), (142, 6377), (145, 6392), (155, 6425),

Gene: Pterodactyl_8 Start: 6897, Stop: 7235, Start Num: 56

Candidate Starts for Pterodactyl_8:

(Start: 56 @6897 has 195 MA's), (68, 6930), (148, 7194),

Gene: Pumancara_8 Start: 6925, Stop: 7263, Start Num: 56

Candidate Starts for Pumancara_8:

(3, 6493), (13, 6673), (14, 6679), (Start: 56 @6925 has 195 MA's), (80, 6997), (138, 7183), (155, 7243),

Gene: QMacho_10 Start: 7806, Stop: 8135, Start Num: 56

Candidate Starts for QMacho_10:

(15, 7566), (34, 7710), (Start: 56 @7806 has 195 MA's), (62, 7821), (89, 7905), (137, 8058), (151, 8103), (153, 8109),

Gene: QueenBey_8 Start: 6092, Stop: 6439, Start Num: 57

Candidate Starts for QueenBey_8:

(24, 5945), (25, 5948), (30, 5987), (31, 5990), (35, 5996), (36, 6008), (38, 6029), (50, 6068), (Start: 57 @6092 has 46 MA's), (68, 6122), (69, 6125), (78, 6155), (90, 6197), (96, 6209), (101, 6227), (120, 6281), (134, 6344), (141, 6368), (142, 6371), (145, 6386), (155, 6419),

Gene: Quenya_10 Start: 7452, Stop: 7781, Start Num: 56

Candidate Starts for Quenya_10:

(2, 7023), (8, 7155), (Start: 56 @7452 has 195 MA's), (62, 7467), (75, 7503), (106, 7602), (129, 7674), (142, 7722), (147, 7737),

Gene: RAP15_12 Start: 9820, Stop: 10158, Start Num: 56

Candidate Starts for RAP15_12:

(20, 9655), (Start: 56 @9820 has 195 MA's), (120, 10006), (140, 10087), (148, 10117),

Gene: REQ2_09 Start: 6642, Stop: 6971, Start Num: 64

Candidate Starts for REQ2_09:

(29, 6519), (Start: 64 @6642 has 1 MA's), (74, 6672), (77, 6684), (83, 6702), (84, 6705), (98, 6747), (100, 6756), (105, 6774), (114, 6801), (147, 6918), (160, 6957),

Gene: RcigaStruga_12 Start: 9803, Stop: 10141, Start Num: 56

Candidate Starts for RcigaStruga_12:

(Start: 56 @9803 has 195 MA's), (65, 9827), (121, 9992), (140, 10070), (148, 10100), (155, 10121),

Gene: RedFox_9 Start: 7312, Stop: 7650, Start Num: 55

Candidate Starts for RedFox_9:

(9, 7018), (18, 7105), (27, 7189), (46, 7273), (Start: 55 @7312 has 28 MA's), (71, 7357), (79, 7381), (92, 7423), (98, 7438), (113, 7483), (116, 7489), (124, 7522), (137, 7570), (142, 7588),

Gene: Renna12_10 Start: 7512, Stop: 7850, Start Num: 55

Candidate Starts for Renna12_10:

(27, 7389), (32, 7413), (Start: 55 @7512 has 28 MA's), (79, 7581), (92, 7623), (98, 7638), (113, 7683), (124, 7722), (125, 7725), (128, 7734), (133, 7758), (137, 7770), (142, 7788),

Gene: Rileysaurus_8 Start: 6087, Stop: 6434, Start Num: 57

Candidate Starts for Rileysaurus_8:

(21, 5931), (25, 5943), (30, 5982), (31, 5985), (35, 5991), (38, 6024), (50, 6063), (Start: 57 @6087 has 46 MA's), (68, 6117), (69, 6120), (90, 6192), (96, 6204), (120, 6276), (134, 6339), (141, 6363), (142, 6366), (145, 6381), (155, 6414),

Gene: Riovina_8 Start: 6923, Stop: 7261, Start Num: 56

Candidate Starts for Riovina_8:

(Start: 56 @6923 has 195 MA's), (68, 6956), (80, 6995), (106, 7076), (138, 7181), (140, 7190),

Gene: Riverdale_12 Start: 9751, Stop: 10089, Start Num: 56

Candidate Starts for Riverdale_12:

(Start: 56 @9751 has 195 MA's), (120, 9937), (140, 10018), (148, 10048),

Gene: Rollins_8 Start: 7153, Stop: 7485, Start Num: 56

Candidate Starts for Rollins_8:

(8, 6856), (Start: 56 @7153 has 195 MA's), (60, 7165), (62, 7168), (74, 7204), (80, 7225), (81, 7228), (116, 7327), (137, 7408),

Gene: Rona_9 Start: 7553, Stop: 7882, Start Num: 56

Candidate Starts for Rona_9:

(8, 7256), (34, 7457), (Start: 54 @7550 has 1 MA's), (Start: 56 @7553 has 195 MA's), (62, 7568), (81, 7625), (105, 7700), (129, 7775), (137, 7805), (151, 7850),

Gene: RootBeer_9 Start: 6513, Stop: 6860, Start Num: 56

Candidate Starts for RootBeer_9:

(44, 6468), (Start: 56 @6513 has 195 MA's), (58, 6519), (99, 6639), (125, 6729), (134, 6765),

Gene: Rowa_9 Start: 7020, Stop: 7364, Start Num: 55

Candidate Starts for Rowa_9:

(Start: 55 @7020 has 28 MA's), (97, 7143), (158, 7353),

Gene: Rozby_12 Start: 9751, Stop: 10089, Start Num: 56

Candidate Starts for Rozby_12:

(Start: 56 @9751 has 195 MA's), (120, 9937), (140, 10018), (148, 10048),

Gene: Ruchi_10 Start: 7974, Stop: 8336, Start Num: 55

Candidate Starts for Ruchi_10:

(26, 7842), (Start: 55 @7974 has 28 MA's), (66, 8001), (87, 8070), (89, 8079), (107, 8136), (113, 8166), (120, 8184), (123, 8202), (126, 8211), (141, 8271),

Gene: SKKY_8 Start: 6123, Stop: 6470, Start Num: 57

Candidate Starts for SKKY_8:

(21, 5967), (23, 5973), (24, 5976), (25, 5979), (30, 6018), (35, 6027), (38, 6060), (Start: 57 @6123 has 46 MA's), (68, 6153), (69, 6156), (81, 6198), (90, 6228), (96, 6240), (120, 6312), (123, 6333), (134, 6375), (142, 6402), (145, 6417), (155, 6450),

Gene: SPB78_10 Start: 7392, Stop: 7745, Start Num: 53

Candidate Starts for SPB78_10:

(1, 6924), (39, 7338), (45, 7353), (53, 7392), (95, 7515), (115, 7578), (127, 7620), (130, 7638), (134, 7656), (137, 7665), (158, 7734),

Gene: SamW_9 Start: 6861, Stop: 7205, Start Num: 59

Candidate Starts for SamW_9:

(10, 6570), (Start: 59 @6861 has 8 MA's), (81, 6927), (91, 6960), (98, 6978), (101, 6990), (120, 7047), (133, 7110), (150, 7164), (155, 7185), (157, 7191),

Gene: Samba_9 Start: 6960, Stop: 7322, Start Num: 56

Candidate Starts for Samba_9:

(48, 6933), (Start: 56 @6960 has 195 MA's), (65, 6984), (72, 7008), (81, 7038), (91, 7071), (98, 7089), (117, 7149),

Gene: SanaSana_10 Start: 7567, Stop: 7896, Start Num: 56

Candidate Starts for SanaSana_10:

(8, 7270), (Start: 54 @7564 has 1 MA's), (Start: 56 @7567 has 195 MA's), (62, 7582), (129, 7789), (137, 7819), (151, 7864),

Gene: SansAfet_9 Start: 7336, Stop: 7665, Start Num: 56

Candidate Starts for SansAfet_9:

(Start: 56 @7336 has 195 MA's), (62, 7351), (137, 7588), (151, 7633),

Gene: Sapo_7 Start: 6047, Stop: 6409, Start Num: 57

Candidate Starts for Sapo_7:

(Start: 57 @6047 has 46 MA's), (65, 6068), (139, 6332),

Gene: SarBear_9 Start: 7299, Stop: 7628, Start Num: 56

Candidate Starts for SarBear_9:

(15, 7059), (34, 7203), (Start: 56 @7299 has 195 MA's), (62, 7314), (89, 7398), (90, 7401), (129, 7521), (137, 7551), (139, 7560), (151, 7596),

Gene: Sarge_9 Start: 6912, Stop: 7244, Start Num: 56
Candidate Starts for Sarge_9:
(Start: 56 @6912 has 195 MA's), (62, 6921), (85, 6990), (126, 7134), (127, 7137), (137, 7161), (158, 7233),

Gene: Savage2526_12 Start: 9814, Stop: 10152, Start Num: 56
Candidate Starts for Savage2526_12:
(20, 9649), (Start: 56 @9814 has 195 MA's), (120, 10000), (140, 10081), (148, 10111),

Gene: Schmidt_11 Start: 7862, Stop: 8224, Start Num: 56
Candidate Starts for Schmidt_11:
(Start: 56 @7862 has 195 MA's), (68, 7895), (87, 7964), (91, 7979), (96, 7991), (98, 7997), (108, 8036), (123, 8078), (130, 8108), (137, 8135), (140, 8147), (149, 8183), (151, 8192),

Gene: Scuttle_12 Start: 9820, Stop: 10158, Start Num: 56
Candidate Starts for Scuttle_12:
(20, 9655), (Start: 56 @9820 has 195 MA's), (120, 10006), (140, 10087), (148, 10117),

Gene: Sergei_8 Start: 6925, Stop: 7263, Start Num: 56
Candidate Starts for Sergei_8:
(Start: 56 @6925 has 195 MA's), (80, 6997), (119, 7108), (138, 7183), (140, 7192), (155, 7243),

Gene: Sharkboy_9 Start: 7552, Stop: 7881, Start Num: 56
Candidate Starts for Sharkboy_9:
(8, 7255), (34, 7456), (Start: 54 @7549 has 1 MA's), (Start: 56 @7552 has 195 MA's), (62, 7567), (81, 7624), (105, 7699), (129, 7774), (137, 7804), (151, 7849),

Gene: Shoya_8 Start: 6548, Stop: 6880, Start Num: 56
Candidate Starts for Shoya_8:
(Start: 56 @6548 has 195 MA's), (62, 6557), (85, 6626), (122, 6752), (126, 6770), (137, 6797), (158, 6869),

Gene: Skylord_8 Start: 7093, Stop: 7425, Start Num: 56
Candidate Starts for Skylord_8:
(8, 6796), (Start: 56 @7093 has 195 MA's), (60, 7105), (62, 7108), (74, 7144), (80, 7165), (81, 7168), (116, 7267), (137, 7348),

Gene: Slay_9 Start: 7775, Stop: 8104, Start Num: 56
Candidate Starts for Slay_9:
(15, 7535), (34, 7679), (Start: 56 @7775 has 195 MA's), (62, 7790), (89, 7874), (90, 7877), (129, 7997), (137, 8027), (139, 8036), (151, 8072),

Gene: Solid_8 Start: 6099, Stop: 6446, Start Num: 57
Candidate Starts for Solid_8:
(38, 6036), (Start: 57 @6099 has 46 MA's), (68, 6129), (69, 6132), (81, 6174), (90, 6204), (96, 6216), (120, 6288), (123, 6309), (134, 6351), (141, 6375), (142, 6378), (145, 6393), (155, 6426),

Gene: Splinter_13 Start: 9406, Stop: 9765, Start Num: 56
Candidate Starts for Splinter_13:
(Start: 56 @9406 has 195 MA's), (66, 9433), (68, 9439), (81, 9481), (96, 9532), (109, 9580), (140, 9688), (149, 9724),

Gene: StAB_9 Start: 6866, Stop: 7210, Start Num: 59

Candidate Starts for StAB_9:

(10, 6575), (Start: 59 @6866 has 8 MA's), (81, 6932), (91, 6965), (98, 6983), (101, 6995), (120, 7052), (132, 7106), (133, 7115), (150, 7169), (155, 7190), (157, 7196),

Gene: Stiles_9 Start: 6860, Stop: 7204, Start Num: 59

Candidate Starts for Stiles_9:

(10, 6569), (Start: 59 @6860 has 8 MA's), (81, 6926), (98, 6977), (101, 6989), (120, 7046), (132, 7100), (133, 7109), (150, 7163), (155, 7184), (157, 7190),

Gene: Stoor_9 Start: 7564, Stop: 7893, Start Num: 56

Candidate Starts for Stoor_9:

(8, 7267), (Start: 54 @7561 has 1 MA's), (Start: 56 @7564 has 195 MA's), (62, 7579), (129, 7786), (137, 7816), (151, 7861),

Gene: Stormborn_8 Start: 6095, Stop: 6442, Start Num: 57

Candidate Starts for Stormborn_8:

(38, 6032), (Start: 57 @6095 has 46 MA's), (68, 6125), (69, 6128), (90, 6200), (96, 6212), (120, 6284), (123, 6305), (134, 6347), (141, 6371), (142, 6374), (145, 6389), (155, 6422),

Gene: Stromboli_9 Start: 7565, Stop: 7894, Start Num: 56

Candidate Starts for Stromboli_9:

(Start: 54 @7562 has 1 MA's), (Start: 56 @7565 has 195 MA's), (62, 7580), (129, 7787), (130, 7790), (137, 7817), (151, 7862),

Gene: Supakev_8 Start: 6925, Stop: 7263, Start Num: 56

Candidate Starts for Supakev_8:

(3, 6493), (13, 6673), (14, 6679), (Start: 56 @6925 has 195 MA's), (80, 6997), (138, 7183), (155, 7243),

Gene: Supernova_8 Start: 6091, Stop: 6438, Start Num: 57

Candidate Starts for Supernova_8:

(38, 6028), (Start: 57 @6091 has 46 MA's), (68, 6121), (69, 6124), (81, 6166), (90, 6196), (96, 6208), (120, 6280), (123, 6301), (134, 6343), (141, 6367), (142, 6370), (145, 6385), (155, 6418),

Gene: Suppi_12 Start: 9837, Stop: 10175, Start Num: 56

Candidate Starts for Suppi_12:

(Start: 56 @9837 has 195 MA's), (68, 9870),

Gene: Swervy_9 Start: 7299, Stop: 7628, Start Num: 56

Candidate Starts for Swervy_9:

(15, 7059), (34, 7203), (Start: 56 @7299 has 195 MA's), (62, 7314), (89, 7398), (90, 7401), (129, 7521), (137, 7551), (139, 7560), (151, 7596),

Gene: TZGordon_15 Start: 9548, Stop: 9907, Start Num: 56

Candidate Starts for TZGordon_15:

(Start: 56 @9548 has 195 MA's), (66, 9575), (68, 9581), (81, 9623), (96, 9674), (109, 9722), (137, 9818), (140, 9830), (149, 9866),

Gene: TattModd_12 Start: 9814, Stop: 10152, Start Num: 56

Candidate Starts for TattModd_12:

(Start: 56 @9814 has 195 MA's), (120, 10000), (140, 10081), (148, 10111),

Gene: TaylorSipht_10 Start: 7777, Stop: 8118, Start Num: 55

Candidate Starts for TaylorSipht_10:

(13, 7525), (16, 7570), (34, 7684), (Start: 55 @7777 has 28 MA's), (Start: 57 @7780 has 46 MA's), (98, 7903), (105, 7930), (111, 7945), (130, 8011), (137, 8038), (141, 8053), (151, 8089),

Gene: Temper16_8 Start: 6925, Stop: 7263, Start Num: 56

Candidate Starts for Temper16_8:

(Start: 56 @6925 has 195 MA's), (80, 6997), (119, 7108), (138, 7183), (140, 7192), (155, 7243),

Gene: TinaLin_16 Start: 10120, Stop: 10479, Start Num: 56

Candidate Starts for TinaLin_16:

(Start: 56 @10120 has 195 MA's), (68, 10153), (72, 10168), (88, 10225), (96, 10246), (109, 10294), (111, 10297), (123, 10333), (135, 10384), (136, 10387), (137, 10390), (145, 10423), (154, 10456),

Gene: Toast_9 Start: 6937, Stop: 7305, Start Num: 56

Candidate Starts for Toast_9:

(5, 6607), (Start: 56 @6937 has 195 MA's), (66, 6961), (68, 6967), (87, 7039), (91, 7054), (98, 7072), (117, 7132), (120, 7141),

Gene: Troy_9 Start: 6861, Stop: 7205, Start Num: 59

Candidate Starts for Troy_9:

(10, 6570), (Start: 59 @6861 has 8 MA's), (81, 6927), (91, 6960), (98, 6978), (101, 6990), (120, 7047), (133, 7110), (150, 7164), (155, 7185), (157, 7191),

Gene: TukTuk_9 Start: 7299, Stop: 7628, Start Num: 56

Candidate Starts for TukTuk_9:

(34, 7203), (Start: 56 @7299 has 195 MA's), (62, 7314), (89, 7398), (137, 7551), (151, 7596), (153, 7602),

Gene: UmaThurman_9 Start: 6959, Stop: 7321, Start Num: 56

Candidate Starts for UmaThurman_9:

(48, 6932), (Start: 56 @6959 has 195 MA's), (65, 6983), (72, 7007), (81, 7037), (91, 7070), (98, 7088), (117, 7148),

Gene: Urla_8 Start: 6952, Stop: 7290, Start Num: 56

Candidate Starts for Urla_8:

(Start: 56 @6952 has 195 MA's), (74, 7003), (92, 7060), (148, 7249),

Gene: Utz_9 Start: 6959, Stop: 7321, Start Num: 56

Candidate Starts for Utz_9:

(5, 6623), (48, 6932), (Start: 56 @6959 has 195 MA's), (65, 6983), (70, 7001), (72, 7007), (81, 7037), (98, 7088), (117, 7148),

Gene: VWB_9 Start: 7437, Stop: 7799, Start Num: 51

Candidate Starts for VWB_9:

(41, 7410), (51, 7437), (53, 7446), (81, 7524), (121, 7647), (127, 7674), (130, 7692), (137, 7719), (146, 7746),

Gene: Vallejo_12 Start: 9752, Stop: 10090, Start Num: 56

Candidate Starts for Vallejo_12:

(Start: 56 @9752 has 195 MA's), (120, 9938), (148, 10049),

Gene: Vendetta_13 Start: 9406, Stop: 9765, Start Num: 56

Candidate Starts for Vendetta_13:

(Start: 56 @9406 has 195 MA's), (66, 9433), (68, 9439), (81, 9481), (96, 9532), (109, 9580), (140, 9688), (149, 9724),

Gene: Vitas_8 Start: 7093, Stop: 7425, Start Num: 56

Candidate Starts for Vitas_8:

(8, 6796), (Start: 56 @7093 has 195 MA's), (60, 7105), (62, 7108), (74, 7144), (80, 7165), (81, 7168), (116, 7267), (137, 7348),

Gene: Vulpecula_10 Start: 8050, Stop: 8412, Start Num: 55

Candidate Starts for Vulpecula_10:

(26, 7918), (Start: 55 @8050 has 28 MA's), (Start: 57 @8053 has 46 MA's), (66, 8077), (87, 8146), (89, 8155), (105, 8203), (113, 8242), (123, 8278), (126, 8287), (141, 8347),

Gene: Vulture_8 Start: 6923, Stop: 7261, Start Num: 56

Candidate Starts for Vulture_8:

(Start: 56 @6923 has 195 MA's), (68, 6956), (80, 6995), (106, 7076), (138, 7181), (140, 7190),

Gene: Walrus_9 Start: 6871, Stop: 7242, Start Num: 56

Candidate Starts for Walrus_9:

(Start: 56 @6871 has 195 MA's), (65, 6895), (98, 7009), (117, 7069),

Gene: Wawa_12 Start: 9789, Stop: 10127, Start Num: 56

Candidate Starts for Wawa_12:

(Start: 56 @9789 has 195 MA's), (100, 9921), (120, 9975), (140, 10056), (148, 10086),

Gene: Wayne_12 Start: 9883, Stop: 10221, Start Num: 56

Candidate Starts for Wayne_12:

(Start: 56 @9883 has 195 MA's), (68, 9916),

Gene: Whack_9 Start: 6628, Stop: 6957, Start Num: 64

Candidate Starts for Whack_9:

(60, 6619), (63, 6625), (Start: 64 @6628 has 1 MA's), (74, 6658), (84, 6691), (156, 6928),

Gene: William_9 Start: 6952, Stop: 7320, Start Num: 56

Candidate Starts for William_9:

(Start: 56 @6952 has 195 MA's), (66, 6976), (68, 6982), (87, 7054), (91, 7069), (98, 7087), (102, 7102), (117, 7147), (120, 7156),

Gene: Wisp_9 Start: 6959, Stop: 7321, Start Num: 56

Candidate Starts for Wisp_9:

(5, 6623), (48, 6932), (Start: 56 @6959 has 195 MA's), (65, 6983), (72, 7007), (81, 7037), (91, 7070), (98, 7088), (117, 7148),

Gene: Wizzo_8 Start: 6103, Stop: 6450, Start Num: 57

Candidate Starts for Wizzo_8:

(38, 6040), (Start: 57 @6103 has 46 MA's), (68, 6133), (69, 6136), (81, 6178), (90, 6208), (96, 6220), (120, 6292), (123, 6313), (134, 6355), (141, 6379), (142, 6382), (145, 6397), (155, 6430),

Gene: Wocket_10 Start: 7236, Stop: 7598, Start Num: 56

Candidate Starts for Wocket_10:

(11, 6972), (Start: 56 @7236 has 195 MA's), (65, 7260), (72, 7284), (81, 7314), (91, 7347), (98, 7365), (117, 7425), (127, 7464), (137, 7509),

Gene: WonderBoy_8 Start: 6905, Stop: 7243, Start Num: 56
Candidate Starts for WonderBoy_8:
(Start: 56 @6905 has 195 MA's), (68, 6938), (92, 7013), (148, 7202),

Gene: Zarbodnamra_9 Start: 6958, Stop: 7320, Start Num: 56
Candidate Starts for Zarbodnamra_9:
(5, 6622), (48, 6931), (Start: 56 @6958 has 195 MA's), (65, 6982), (70, 7000), (72, 7006), (81, 7036),
(98, 7087), (117, 7147),

Gene: ZiggyZoo_9 Start: 6983, Stop: 7345, Start Num: 56
Candidate Starts for ZiggyZoo_9:
(5, 6647), (48, 6956), (Start: 56 @6983 has 195 MA's), (65, 7007), (72, 7031), (81, 7061), (91, 7094),
(98, 7112), (117, 7172),

Gene: Zorro_12 Start: 9768, Stop: 10106, Start Num: 56
Candidate Starts for Zorro_12:
(Start: 56 @9768 has 195 MA's), (100, 9900), (120, 9954), (140, 10035), (148, 10065),