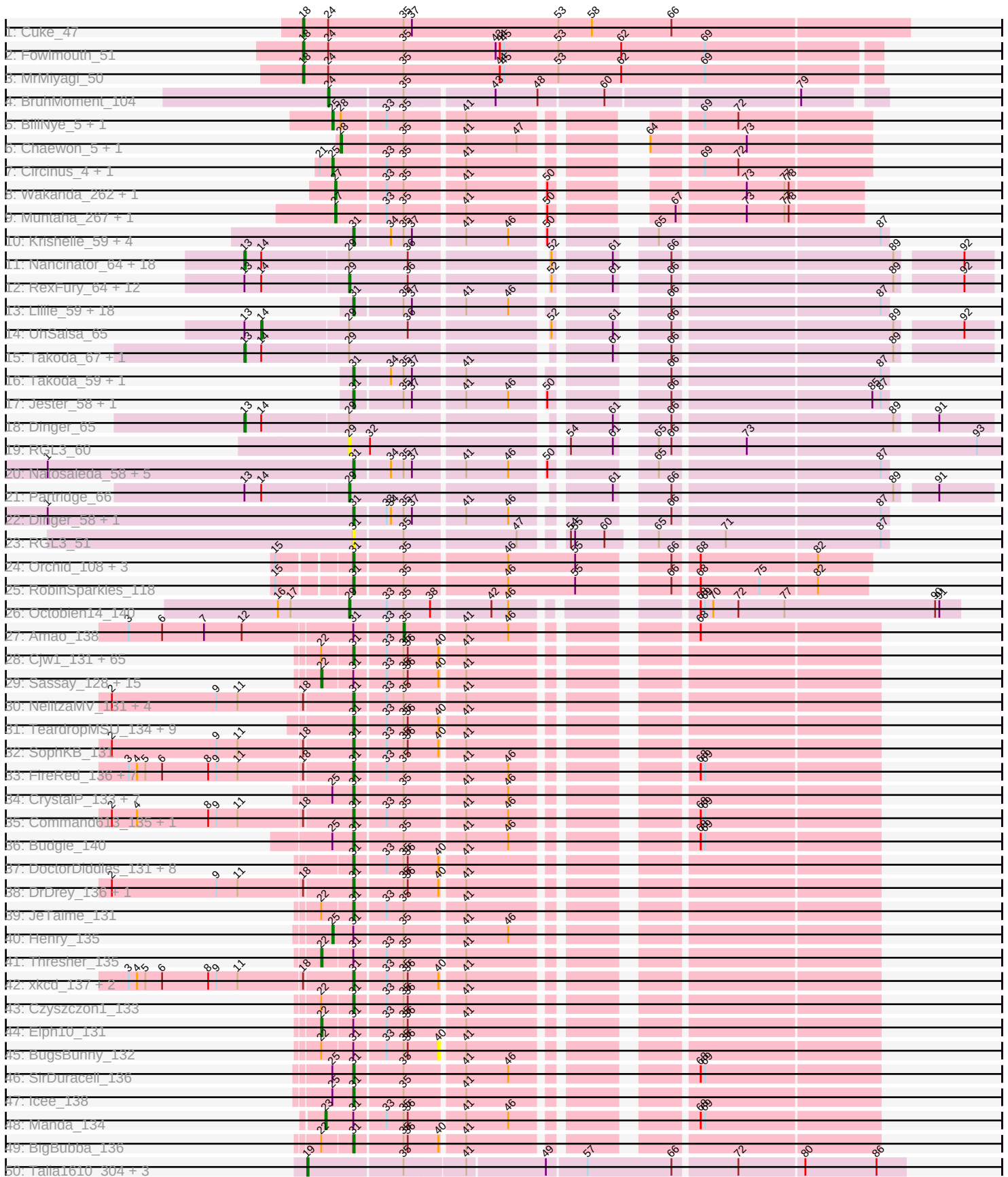
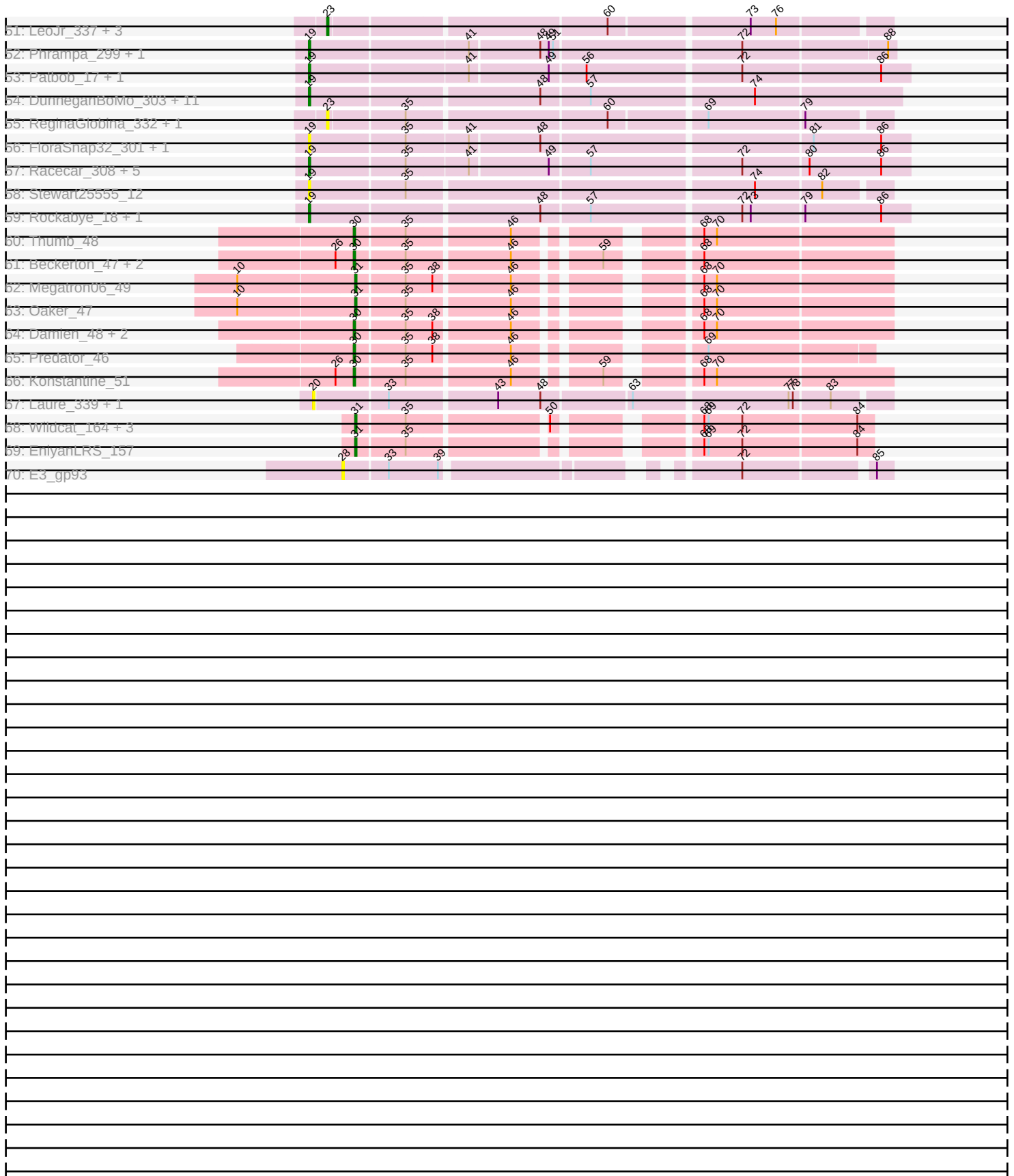


Pham 330408



Pham 330408



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 330408 Report

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

Pham number 330408 has 293 members, 36 are drafts.

Phages represented in each track:

- Track 1 : Cuke_47
- Track 2 : Fowlmouth_51
- Track 3 : MrMiyagi_50
- Track 4 : BruhMoment_104
- Track 5 : BillNye_5, BillNye_251
- Track 6 : Chaewon_5, Chaewon_257
- Track 7 : Circinus_4, Circinus_249
- Track 8 : Wakanda_262, Wakanda_3
- Track 9 : Muntaha_267, Muntaha_4
- Track 10 : Krishelle_59, Alatin_58, StCroix_58, Naiad_58, Bradshaw_59
- Track 11 : Nancinator_64, Espica_66, Erik_65, Jester_64, Gollum_65, Bonanza_66, Belenaria_66, Shuman_66, Bradshaw_65, Harlequin_65, Rasputin_65, AppleCloud_62, Bryce_64, Swann_65, Hiro_65, Krishelle_65, PhailMary_62, Alpacados_64, Phrankensteen_65
- Track 12 : RexFury_64, Naiad_64, StCroix_64, BobbyDazzler_65, Natosaleda_64, Alatin_64, CosmicSans_65, Lillie_65, Rhodalysa_65, Yogi_66, TWAMP_65, Yoncess_64, RER2_59
- Track 13 : Lillie_59, Gollum_59, Nancinator_58, Bryce_58, BobbyDazzler_59, Erik_59, Hiro_59, RER2_53, Bonanza_60, CosmicSans_59, Alpacados_58, Yoncess_58, Swann_59, Phrankensteen_59, Yogi_60, TWAMP_59, Shuman_60, Rasputin_59, Rhodalysa_59
- Track 14 : UhSalsa_65
- Track 15 : Takoda_67, AngryOrchard_63
- Track 16 : Takoda_59, AngryOrchard_56
- Track 17 : Jester_58, Harlequin_59
- Track 18 : Dinger_65
- Track 19 : RGL3_60
- Track 20 : Natosaleda_58, Belenaria_60, AppleCloud_56, Espica_60, RexFury_58, UhSalsa_59
- Track 21 : Partridge_66
- Track 22 : Dinger_58, Partridge_58
- Track 23 : RGL3_51
- Track 24 : Orchid_108, Kampe_109, PatrickStar_109, Gibbles_111
- Track 25 : RobinSparkles_118
- Track 26 : Octobien14_140
- Track 27 : Amao_138

- Track 28 : Cjw1_131, Willez_130, NoSleep_133, Maxxinista_135, StolenFromERC_136, Stank_137, IHOP_137, Elite2014_133, Paperbeatsrock_132, FoghornLeghorn_131, OrionPax_129, Sotrice96_138, Nala_135, ShereKhan_133, Livelaughbron_132, Adnama_138, NonchalantPear_134, GooberAzure_136, Eureka_133, Lilac_131, Contagion_129, Marshmallow_134, Phaja_137, Wiggin_136, Bench_135, Mosby_130, ChosenOne_134, Lilpickle_133, BaboJay_132, Palpatine_133, Pharsalus_131, GoldenSpark_138, Inca_132, 244_134, Miniwave_127, Cookies_134, Tarkin_132, StellaBean_131, Terminus_136, Argent26_138, TBrady12_138, TeamEdward_133, Toto_131, Misfit_133, ShamWow_133, Kanye_130, RiverMonster_132, StormChicken_135, Xandras_134, ChotaBhai_137, MPhalcon_134, Moldemort_136, Qualification_134, Gemini_139, Easy2Say_135, Stark_131, AmericanBeauty_137, Buck_134, MadamMonkfish_133, Lilizi_134, Greep_137, Nimrod_133, HanKaySha_133, Hopey_132, Emmina_134, Pumpkin_133
- Track 29 : Sassay_128, Cactus_141, MISSy_135, Tomaszewski_127, Dumbo_134, Kimchi_139, Bask21_138, Petra64142_135, Rimmer_130, Bogg_134, PaddyBaddy_130, Porky_135, Ukulele_128, Goku_132, Bruin_130, Goldilocks_139
- Track 30 : NelitzaMV_131, Rakim_134, Mindy_136, MollyToe_127, Brewer_129
- Track 31 : TeardropMSU_134, ABCat_134, Harella_139, Pat3_133, BadStone_134, Gator_135, Tuco_139, FairyPath_135, Dusk_134, Glexan_137
- Track 32 : SophKB_131
- Track 33 : FireRed_136, HufflyPuff_135, Holt_139, Phaux_135, YassJohnny_129, Murica_137, PhatBacter_136, Policronamos_134
- Track 34 : CrystalP_133, Daikon_135, Asriel_130, Balomoji_133, Barbarian_133, BilboSwaggins_131, Flypotenuse_128, Traaww1_129
- Track 35 : Command613_135, Kostya_134
- Track 36 : Budgie_140
- Track 37 : DoctorDiddles_131, Murphy_132, Filch_135, Phrux_129, Highbury_129, Saints25_129, Hoonter_136, Simpliphy_132, Ptowny_127
- Track 38 : DrDrey_136, Myrale_134
- Track 39 : JeTaime_131
- Track 40 : Henry_135
- Track 41 : Thresher_135
- Track 42 : xkcd_137, Becksu_131, Youngblood_137
- Track 43 : Czyszczo1_133
- Track 44 : Elph10_131
- Track 45 : BugsBunny_132
- Track 46 : SirDuracell_136
- Track 47 : Icee_138
- Track 48 : Manda_134
- Track 49 : BigBubba_136
- Track 50 : Talia1610_304, Mimi_18, Talia1610_18, Mimi_303
- Track 51 : LeoJr_337, LeoJr_24, Atuin_20, Atuin_320
- Track 52 : Phrampa_299, Phrampa_15
- Track 53 : Patbob_17, Patbob_303
- Track 54 : DunneganBoMo_303, Emmetator_8, Emmetator_302, Artu_298, BooTeria_8, KSunshine22_11, WaddleDee_8, Artu_11, WaddleDee_299, DunneganBoMo_8, KSunshine22_303, BooTeria_297
- Track 55 : ReginaGlobina_332, ReginaGlobina_21
- Track 56 : FloraSnap32_301, FloraSnap32_16
- Track 57 : Racecar_308, Bloom_20, Racecar_19, Bloom_307, FrostedClock_19, FrostedClock_304
- Track 58 : Stewart25555_12

- Track 59 : Rockabye_18, Rockabye_315
- Track 60 : Thumb_48
- Track 61 : Beckerton_47, BobtimousPrime_49, Phreeze_46
- Track 62 : Megatron06_49
- Track 63 : Oaker_47
- Track 64 : Damien_48, Nish23_50, Cborch11_49
- Track 65 : Predator_46
- Track 66 : Konstantine_51
- Track 67 : Laure_339, Laure_21
- Track 68 : Wildcat_164, Azrael100_156, MaryV_150, Cosmo_165
- Track 69 : EniyanLRS_157
- Track 70 : E3_gp93

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

The start number called the most often in the published annotations is 31, it was called in 160 of the 257 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

• 244_134, ABCat_134, Adnama_138, Alatin_58, Alpacados_58, AmericanBeauty_137, AngryOrchard_56, AppleCloud_56, Argent26_138, Asriel_130, Azrael100_156, BaboJay_132, BadStone_134, Balomoji_133, Barbarian_133, Becksu_131, Belenaria_60, Bench_135, BigBubba_136, BilboSwaggins_131, BobbyDazzler_59, Bonanza_60, Bradshaw_59, Brewer_129, Bryce_58, Buck_134, Budgie_140, ChosenOne_134, ChotaBhai_137, Cjw1_131, Command613_135, Contagion_129, Cookies_134, CosmicSans_59, Cosmo_165, CrystalP_133, Czystczon1_133, Daikon_135, Dinger_58, DoctorDiddles_131, DrDrey_136, Dusk_134, Easy2Say_135, Elite2014_133, Emmina_134, EniyanLRS_157, Erik_59, Espica_60, Eureka_133, FairyPath_135, Filch_135, FireRed_136, Flypotenuse_128, FoghornLeghorn_131, Gator_135, Gemini_139, Gibbles_111, Glexan_137, GoldenSpark_138, Gollum_59, GooberAzure_136, Greep_137, HanKaySha_133, Harella_139, Harlequin_59, Highbury_129, Hiro_59, Holt_139, Hoonter_136, Hopey_132, HuffyPuff_135, IHOP_137, Icee_138, Inca_132, JeTaime_131, Jester_58, Kampe_109, Kanye_130, Kostya_134, Krishelle_59, Lilac_131, Lilizi_134, Lillie_59, Lilpickle_133, Liveloughbron_132, MPhalcon_134, MadamMonkfish_133, Marshmallow_134, MaryV_150, Maxxinista_135, Megatron06_49, Mindy_136, Miniwave_127, Misfit_133, Moldemort_136, MollyToe_127, Mosby_130, Murica_137, Murphy_132, Myrale_134, Naiad_58, Nala_135, Nancinator_58, Natosaleda_58, NelitzaMV_131, Nimrod_133, NoSleep_133, NonchalantPear_134, Oaker_47, Orchid_108, OrionPax_129, Palpatine_133, Paperbeatsrock_132, Partridge_58, Pat3_133, PatrickStar_109, Phaja_137, Pharsalus_131, PhatBacter_136, Phaux_135, Phrankenstein_59, Phrux_129, Policronamos_134, Ptowny_127, Pumpkin_133, Quallification_134, RER2_53, RGL3_51, Rakim_134, Rasputin_59, RexFury_58, Rhodalysa_59, RiverMonster_132, RobinSparkles_118, Saints25_129, ShamWow_133, ShereKhan_133, Shuman_60, Simpliphy_132, SirDuracell_136, SophKB_131, Sotrice96_138, StCroix_58, Stank_137, Stark_131, StellaBean_131, StolenFromERC_136, StormChicken_135, Swann_59, TBrady12_138, TWAMP_59, Takoda_59, Tarkin_132, TeamEdward_133, TeardropMSU_134, Terminus_136, Toto_131, Traaww1_129, Tuco_139, UhSalsa_59, Wiggin_136, Wildcat_164, Willez_130, Xandras_134, YassJohnny_129, Yogi_60, Yoncess_58,

Youngblood_137, xkcd_137,

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

• Amao_138, Bask21_138, Bogg_134, Bruin_130, BugsBunny_132, Cactus_141, Dumbo_134, Elph10_131, Goku_132, Goldilocks_139, Henry_135, Kimchi_139, MISSy_135, Manda_134, PaddyBaddy_130, Petra64142_135, Porky_135, Rimmer_130, Sassay_128, Thresher_135, Tomaszewski_127, Ukulele_128,

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

• Alatin_64, Alpacados_64, AngryOrchard_63, AppleCloud_62, Artu_11, Artu_298, Atuin_20, Atuin_320, Beckerton_47, Belenaria_66, BillNye_251, BillNye_5, Bloom_20, Bloom_307, BobbyDazzler_65, BobtimousPrime_49, Bonanza_66, BooTeria_297, BooTeria_8, Bradshaw_65, BruhMoment_104, Bryce_64, Cborch11_49, Chaewon_257, Chaewon_5, Circinus_249, Circinus_4, CosmicSans_65, Cuke_47, Damien_48, Dinger_65, DunneganBoMo_303, DunneganBoMo_8, E3_gp93, Emmetator_302, Emmetator_8, Erik_65, Espica_66, FloraSnap32_16, FloraSnap32_301, Fowlmouth_51, FrostedClock_19, FrostedClock_304, Gollum_65, Harlequin_65, Hiro_65, Jester_64, KSunshine22_11, KSunshine22_303, Konstantine_51, Krishelle_65, Laure_21, Laure_339, LeoJr_24, LeoJr_337, Lillie_65, Mimi_18, Mimi_303, MrMiyagi_50, Muntaha_267, Muntaha_4, Naiad_64, Nancinator_64, Natosaleda_64, Nish23_50, Octobien14_140, Partridge_66, Patbob_17, Patbob_303, PhailMary_62, Phrampa_15, Phrampa_299, PhrankenStein_65, Phreeze_46, Predator_46, RER2_59, RGL3_60, Racecar_19, Racecar_308, Rasputin_65, ReginaGlobina_21, ReginaGlobina_332, RexFury_64, Rhodalysa_65, Rockabye_18, Rockabye_315, Shuman_66, StCroix_64, Stewart25555_12, Swann_65, TWAMP_65, Takoda_67, Talia1610_18, Talia1610_304, Thumb_48, UhSalsa_65, WaddleDee_299, WaddleDee_8, Wakanda_262, Wakanda_3, Yogi_66, Yoncess_64,

Summary by start number:

Start 13:

- Found in 37 of 293 (12.6%) of genes in pham
- Manual Annotations of this start: 22 of 257
- Called 59.5% of time when present
- Phage (with cluster) where this start called: Alpacados_64 (CA), AngryOrchard_63 (CA), AppleCloud_62 (CA), Belenaria_66 (CA), Bonanza_66 (CA), Bradshaw_65 (CA), Bryce_64 (CA), Dinger_65 (CA), Erik_65 (CA), Espica_66 (CA), Gollum_65 (CA), Harlequin_65 (CA), Hiro_65 (CA), Jester_64 (CA), Krishelle_65 (CA), Nancinator_64 (CA), PhailMary_62 (CA), PhrankenStein_65 (CA), Rasputin_65 (CA), Shuman_66 (CA), Swann_65 (CA), Takoda_67 (CA),

Start 14:

- Found in 37 of 293 (12.6%) of genes in pham
- Manual Annotations of this start: 1 of 257
- Called 2.7% of time when present
- Phage (with cluster) where this start called: UhSalsa_65 (CA),

Start 18:

- Found in 24 of 293 (8.2%) of genes in pham
- Manual Annotations of this start: 3 of 257
- Called 12.5% of time when present

- Phage (with cluster) where this start called: Cuke_47 (AC), Fowlmouth_51 (AC), MrMiyagi_50 (AC),

Start 19:

- Found in 31 of 293 (10.6%) of genes in pham
- Manual Annotations of this start: 18 of 257
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Artu_11 (FC), Artu_298 (FC), Bloom_20 (FC), Bloom_307 (FC), BooTeria_297 (FC), BooTeria_8 (FC), DunneganBoMo_303 (FC), DunneganBoMo_8 (FC), Emmetator_302 (FC), Emmetator_8 (FC), FloraSnap32_16 (FC), FloraSnap32_301 (FC), FrostedClock_19 (FC), FrostedClock_304 (FC), KSunshine22_11 (FC), KSunshine22_303 (FC), Mimi_18 (FC), Mimi_303 (FC), Patbob_17 (FC), Patbob_303 (FC), Phrampa_15 (FC), Phrampa_299 (FC), Racecar_19 (FC), Racecar_308 (FC), Rockabye_18 (FC), Rockabye_315 (FC), Stewart25555_12 (FC), Talia1610_18 (FC), Talia1610_304 (FC), WaddleDee_299 (FC), WaddleDee_8 (FC),

Start 20:

- Found in 2 of 293 (0.7%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Laure_21 (UNK), Laure_339 (UNK),

Start 22:

- Found in 88 of 293 (30.0%) of genes in pham
- Manual Annotations of this start: 15 of 257
- Called 20.5% of time when present
- Phage (with cluster) where this start called: Bask21_138 (E), Bogg_134 (E), Bruin_130 (E), Cactus_141 (E), Dumbo_134 (E), Elph10_131 (E), Goku_132 (E), Goldilocks_139 (E), Kimchi_139 (E), MISSy_135 (E), PaddyBaddy_130 (E), Petra64142_135 (E), Porky_135 (E), Rimmer_130 (E), Sassay_128 (E), Thresher_135 (E), Tomaszewski_127 (E), Ukulele_128 (E),

Start 23:

- Found in 7 of 293 (2.4%) of genes in pham
- Manual Annotations of this start: 3 of 257
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Atuin_20 (FC), Atuin_320 (FC), LeoJr_24 (FC), LeoJr_337 (FC), Manda_134 (E), ReginaGlobina_21 (FC), ReginaGlobina_332 (FC),

Start 24:

- Found in 4 of 293 (1.4%) of genes in pham
- Manual Annotations of this start: 1 of 257
- Called 25.0% of time when present
- Phage (with cluster) where this start called: BruhMoment_104 (AP3),

Start 25:

- Found in 16 of 293 (5.5%) of genes in pham
- Manual Annotations of this start: 5 of 257
- Called 31.2% of time when present
- Phage (with cluster) where this start called: BillNye_251 (BK2), BillNye_5 (BK2), Circinus_249 (BK2), Circinus_4 (BK2), Henry_135 (E),

Start 27:

- Found in 4 of 293 (1.4%) of genes in pham
- Manual Annotations of this start: 4 of 257
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Muntaha_267 (BK2), Muntaha_4 (BK2), Wakanda_262 (BK2), Wakanda_3 (BK2),

Start 28:

- Found in 5 of 293 (1.7%) of genes in pham
- Manual Annotations of this start: 2 of 257
- Called 60.0% of time when present
- Phage (with cluster) where this start called: Chaewon_257 (BK2), Chaewon_5 (BK2), E3_gp93 (singleton),

Start 29:

- Found in 39 of 293 (13.3%) of genes in pham
- Manual Annotations of this start: 14 of 257
- Called 41.0% of time when present
- Phage (with cluster) where this start called: Alatin_64 (CA), BobbyDazzler_65 (CA), CosmicSans_65 (CA), Lillie_65 (CA), Naiad_64 (CA), Natosaleda_64 (CA), Octobien14_140 (DU1), Partridge_66 (CA), RER2_59 (CA), RGL3_60 (CA), RexFury_64 (CA), Rhodalysa_65 (CA), StCroix_64 (CA), TWAMP_65 (CA), Yogi_66 (CA), Yoncess_64 (CA),

Start 30:

- Found in 9 of 293 (3.1%) of genes in pham
- Manual Annotations of this start: 8 of 257
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Beckerton_47 (H1), BobtimousPrime_49 (H1), Cborch11_49 (H1), Damien_48 (H1), Konstantine_51 (H1), Nish23_50 (H1), Phreeze_46 (H1), Predator_46 (H1), Thumb_48 (H1),

Start 31:

- Found in 191 of 293 (65.2%) of genes in pham
- Manual Annotations of this start: 160 of 257
- Called 88.5% of time when present
- Phage (with cluster) where this start called: 244_134 (E), ABCat_134 (E), Adnama_138 (E), Alatin_58 (CA), Alpacados_58 (CA), AmericanBeauty_137 (E), AngryOrchard_56 (CA), AppleCloud_56 (CA), Argent26_138 (E), Asriel_130 (E), Azrael100_156 (V), BaboJay_132 (E), BadStone_134 (E), Balomoji_133 (E), Barbarian_133 (E), Becksu_131 (E), Belenaria_60 (CA), Bench_135 (E), BigBubba_136 (E), BilboSwaggins_131 (E), BobbyDazzler_59 (CA), Bonanza_60 (CA), Bradshaw_59 (CA), Brewer_129 (E), Bryce_58 (CA), Buck_134 (E), Budgie_140 (E), ChosenOne_134 (E), ChotaBhai_137 (E), Cjw1_131 (E), Command613_135 (E), Contagion_129 (E), Cookies_134 (E), CosmicSans_59 (CA), Cosmo_165 (V), CrystalP_133 (E), Czyszczonek_133 (E), Daikon_135 (E), Dinger_58 (CA), DoctorDiddles_131 (E), DrDrey_136 (E), Dusk_134 (E), Easy2Say_135 (E), Elite2014_133 (E), Emmina_134 (E), EniyanLRS_157 (V), Erik_59 (CA), Espica_60 (CA), Eureka_133 (E), FairyPath_135 (E), Filch_135 (E), FireRed_136 (E), Flypotenuse_128 (E), FoghornLeghorn_131 (E), Gator_135 (E), Gemini_139 (E), Gubbles_111 (CX), Glexan_137 (E), GoldenSpark_138 (E), Gollum_59 (CA), GooberAzure_136 (E), Greep_137 (E), HanKaySha_133 (E), Harella_139 (E),

Harlequin_59 (CA), Highbury_129 (E), Hiro_59 (CA), Holt_139 (E), Hoonter_136 (E), Hopey_132 (E), HuffyPuff_135 (E), IHOP_137 (E), Icee_138 (E), Inca_132 (E), JeTaime_131 (E), Jester_58 (CA), Kampe_109 (CX), Kanye_130 (E), Kostya_134 (E), Krishelle_59 (CA), Lilac_131 (E), Lilizi_134 (E), Lillie_59 (CA), Lilpickle_133 (E), Livelaughbron_132 (E), MPhalcon_134 (E), MadamMonkfish_133 (E), Marshmallow_134 (E), MaryV_150 (V), Maxxinista_135 (E), Megatron06_49 (H1), Mindy_136 (E), Miniwave_127 (E), Misfit_133 (E), Moldemort_136 (E), MollyToe_127 (E), Mosby_130 (E), Murica_137 (E), Murphy_132 (E), Myrale_134 (E), Naiad_58 (CA), Nala_135 (E), Nancinator_58 (CA), Natosaleda_58 (CA), NelitzaMV_131 (E), Nimrod_133 (E), NoSleep_133 (E), NonchalantPear_134 (E), Oaker_47 (H1), Orchid_108 (CX), OrionPax_129 (E), Palpatine_133 (E), Paperbeatsrock_132 (E), Partridge_58 (CA), Pat3_133 (E), PatrickStar_109 (CX), Phaja_137 (E), Pharsalus_131 (E), PhatBacter_136 (E), Phaux_135 (E), Phrankenstein_59 (CA), Phrux_129 (E), Policronamos_134 (E), Ptowny_127 (E), Pumpkin_133 (E), Quallification_134 (E), RER2_53 (CA), RGL3_51 (CA), Rakim_134 (E), Rasputin_59 (CA), RexFury_58 (CA), Rhodalya_59 (CA), RiverMonster_132 (E), RobinSparkles_118 (CX), Saints25_129 (E), ShamWow_133 (E), ShereKhan_133 (E), Shuman_60 (CA), Simpliphy_132 (E), SirDuracell_136 (E), SophKB_131 (E), Sotrice96_138 (E), StCroix_58 (CA), Stank_137 (E), Stark_131 (E), StellaBean_131 (E), StolenFromERC_136 (E), StormChicken_135 (E), Swann_59 (CA), TBrady12_138 (E), TWAMP_59 (CA), Takoda_59 (CA), Tarkin_132 (E), TeamEdward_133 (E), TeardropMSU_134 (E), Terminus_136 (E), Toto_131 (E), Traaww1_129 (E), Tuco_139 (E), UhSalsa_59 (CA), Wiggin_136 (E), Wildcat_164 (V), Willez_130 (E), Xandras_134 (E), YassJohnny_129 (E), Yogi_60 (CA), Yoncess_58 (CA), Youngblood_137 (E), xkcd_137 (E),

Start 35:

- Found in 230 of 293 (78.5%) of genes in pham
- Manual Annotations of this start: 1 of 257
- Called 0.4% of time when present
- Phage (with cluster) where this start called: Amao_138 (E),

Start 40:

- Found in 109 of 293 (37.2%) of genes in pham
- No Manual Annotations of this start.
- Called 0.9% of time when present
- Phage (with cluster) where this start called: BugsBunny_132 (E),

Summary by clusters:

There are 12 clusters represented in this pham: AC, E, AP3, CA, H1, CX, singleton, FC, BK2, V, DU1, UNK,

Info for manual annotations of cluster AC:

- Start number 18 was manually annotated 3 times for cluster AC.

Info for manual annotations of cluster AP3:

- Start number 24 was manually annotated 1 time for cluster AP3.

Info for manual annotations of cluster BK2:

- Start number 25 was manually annotated 4 times for cluster BK2.
- Start number 27 was manually annotated 4 times for cluster BK2.
- Start number 28 was manually annotated 2 times for cluster BK2.

Info for manual annotations of cluster CA:

- Start number 13 was manually annotated 22 times for cluster CA.
- Start number 14 was manually annotated 1 time for cluster CA.
- Start number 29 was manually annotated 13 times for cluster CA.
- Start number 31 was manually annotated 35 times for cluster CA.

Info for manual annotations of cluster CX:

- Start number 31 was manually annotated 5 times for cluster CX.

Info for manual annotations of cluster DU1:

- Start number 29 was manually annotated 1 time for cluster DU1.

Info for manual annotations of cluster E:

- Start number 22 was manually annotated 15 times for cluster E.
- Start number 23 was manually annotated 1 time for cluster E.
- Start number 25 was manually annotated 1 time for cluster E.
- Start number 31 was manually annotated 113 times for cluster E.
- Start number 35 was manually annotated 1 time for cluster E.

Info for manual annotations of cluster FC:

- Start number 19 was manually annotated 18 times for cluster FC.
- Start number 23 was manually annotated 2 times for cluster FC.

Info for manual annotations of cluster H1:

- Start number 30 was manually annotated 8 times for cluster H1.
- Start number 31 was manually annotated 2 times for cluster H1.

Info for manual annotations of cluster V:

- Start number 31 was manually annotated 5 times for cluster V.

Gene Information:

Gene: 244_134 Start: 70917, Stop: 70588, Start Num: 31

Candidate Starts for 244_134:

(Start: 22 @70935 has 15 MA's), (Start: 31 @70917 has 160 MA's), (33, 70896), (Start: 35 @70884 has 1 MA's), (36, 70881), (40, 70860), (41, 70845),

Gene: ABCat_134 Start: 72465, Stop: 72136, Start Num: 31

Candidate Starts for ABCat_134:

(Start: 31 @72465 has 160 MA's), (33, 72444), (Start: 35 @72432 has 1 MA's), (36, 72429), (40, 72408), (41, 72393),

Gene: Adnama_138 Start: 71581, Stop: 71252, Start Num: 31

Candidate Starts for Adnama_138:

(Start: 22 @71599 has 15 MA's), (Start: 31 @71581 has 160 MA's), (33, 71560), (Start: 35 @71548 has 1 MA's), (36, 71545), (40, 71524), (41, 71509),

Gene: Alatin_58 Start: 41201, Stop: 40866, Start Num: 31

Candidate Starts for Alatin_58:

(Start: 31 @41201 has 160 MA's), (34, 41177), (Start: 35 @41168 has 1 MA's), (37, 41162), (41, 41129), (46, 41099), (50, 41078), (65, 41021), (87, 40871),

Gene: Alatin_64 Start: 43606, Stop: 43202, Start Num: 29

Candidate Starts for Alatin_64:

(Start: 13 @43678 has 22 MA's), (Start: 14 @43666 has 1 MA's), (Start: 29 @43606 has 14 MA's), (36, 43564), (52, 43477), (61, 43441), (66, 43414), (89, 43264), (92, 43222),

Gene: Alpacados_58 Start: 41024, Stop: 40689, Start Num: 31

Candidate Starts for Alpacados_58:

(Start: 31 @41024 has 160 MA's), (Start: 35 @40991 has 1 MA's), (37, 40985), (41, 40952), (46, 40922), (66, 40835), (87, 40694),

Gene: Alpacados_64 Start: 43501, Stop: 43025, Start Num: 13

Candidate Starts for Alpacados_64:

(Start: 13 @43501 has 22 MA's), (Start: 14 @43489 has 1 MA's), (Start: 29 @43429 has 14 MA's), (36, 43387), (52, 43300), (61, 43264), (66, 43237), (89, 43087), (92, 43045),

Gene: Amao_138 Start: 72256, Stop: 71960, Start Num: 35

Candidate Starts for Amao_138:

(3, 72445), (6, 72421), (7, 72391), (12, 72364), (Start: 31 @72289 has 160 MA's), (33, 72268), (Start: 35 @72256 has 1 MA's), (41, 72217), (46, 72187), (68, 72085),

Gene: AmericanBeauty_137 Start: 71623, Stop: 71294, Start Num: 31

Candidate Starts for AmericanBeauty_137:

(Start: 22 @71641 has 15 MA's), (Start: 31 @71623 has 160 MA's), (33, 71602), (Start: 35 @71590 has 1 MA's), (36, 71587), (40, 71566), (41, 71551),

Gene: AngryOrchard_63 Start: 43723, Stop: 43247, Start Num: 13

Candidate Starts for AngryOrchard_63:

(Start: 13 @43723 has 22 MA's), (Start: 14 @43711 has 1 MA's), (Start: 29 @43651 has 14 MA's), (61, 43486), (66, 43459), (89, 43309),

Gene: AngryOrchard_56 Start: 41255, Stop: 40920, Start Num: 31

Candidate Starts for AngryOrchard_56:

(Start: 31 @41255 has 160 MA's), (34, 41231), (Start: 35 @41222 has 1 MA's), (37, 41216), (41, 41183), (66, 41066), (87, 40925),

Gene: AppleCloud_62 Start: 43395, Stop: 42919, Start Num: 13

Candidate Starts for AppleCloud_62:

(Start: 13 @43395 has 22 MA's), (Start: 14 @43383 has 1 MA's), (Start: 29 @43323 has 14 MA's), (36, 43281), (52, 43194), (61, 43158), (66, 43131), (89, 42981), (92, 42939),

Gene: AppleCloud_56 Start: 40918, Stop: 40583, Start Num: 31

Candidate Starts for AppleCloud_56:

(1, 41137), (Start: 31 @40918 has 160 MA's), (34, 40894), (Start: 35 @40885 has 1 MA's), (37, 40879), (41, 40846), (46, 40816), (50, 40795), (65, 40738), (87, 40588),

Gene: Argent26_138 Start: 71505, Stop: 71176, Start Num: 31

Candidate Starts for Argent26_138:

(Start: 22 @71523 has 15 MA's), (Start: 31 @71505 has 160 MA's), (33, 71484), (Start: 35 @71472 has 1 MA's), (36, 71469), (40, 71448), (41, 71433),

Gene: Artu_298 Start: 183957, Stop: 184358, Start Num: 19
Candidate Starts for Artu_298:
(Start: 19 @183957 has 18 MA's), (48, 184113), (57, 184146), (74, 184257),

Gene: Artu_11 Start: 4803, Stop: 5204, Start Num: 19
Candidate Starts for Artu_11:
(Start: 19 @4803 has 18 MA's), (48, 4959), (57, 4992), (74, 5103),

Gene: Asriel_130 Start: 69770, Stop: 69441, Start Num: 31
Candidate Starts for Asriel_130:
(Start: 25 @69785 has 5 MA's), (Start: 31 @69770 has 160 MA's), (Start: 35 @69737 has 1 MA's), (41, 69698), (46, 69668),

Gene: Atuin_20 Start: 9989, Stop: 10360, Start Num: 23
Candidate Starts for Atuin_20:
(Start: 23 @9989 has 3 MA's), (60, 10175), (73, 10268), (76, 10286),

Gene: Atuin_320 Start: 186877, Stop: 187248, Start Num: 23
Candidate Starts for Atuin_320:
(Start: 23 @186877 has 3 MA's), (60, 187063), (73, 187156), (76, 187174),

Gene: Azrael100_156 Start: 73905, Stop: 73585, Start Num: 31
Candidate Starts for Azrael100_156:
(Start: 31 @73905 has 160 MA's), (Start: 35 @73872 has 1 MA's), (50, 73782), (68, 73701), (69, 73698), (72, 73674), (84, 73596),

Gene: BaboJay_132 Start: 72084, Stop: 71755, Start Num: 31
Candidate Starts for BaboJay_132:
(Start: 22 @72102 has 15 MA's), (Start: 31 @72084 has 160 MA's), (33, 72063), (Start: 35 @72051 has 1 MA's), (36, 72048), (40, 72027), (41, 72012),

Gene: BadStone_134 Start: 72013, Stop: 71684, Start Num: 31
Candidate Starts for BadStone_134:
(Start: 31 @72013 has 160 MA's), (33, 71992), (Start: 35 @71980 has 1 MA's), (36, 71977), (40, 71956), (41, 71941),

Gene: Balomoji_133 Start: 71559, Stop: 71230, Start Num: 31
Candidate Starts for Balomoji_133:
(Start: 25 @71574 has 5 MA's), (Start: 31 @71559 has 160 MA's), (Start: 35 @71526 has 1 MA's), (41, 71487), (46, 71457),

Gene: Barbarian_133 Start: 69770, Stop: 69441, Start Num: 31
Candidate Starts for Barbarian_133:
(Start: 25 @69785 has 5 MA's), (Start: 31 @69770 has 160 MA's), (Start: 35 @69737 has 1 MA's), (41, 69698), (46, 69668),

Gene: Bask21_138 Start: 70954, Stop: 70607, Start Num: 22
Candidate Starts for Bask21_138:
(Start: 22 @70954 has 15 MA's), (Start: 31 @70936 has 160 MA's), (33, 70915), (Start: 35 @70903 has 1 MA's), (36, 70900), (40, 70879), (41, 70864),

Gene: Beckerton_47 Start: 40622, Stop: 40957, Start Num: 30
Candidate Starts for Beckerton_47:

(26, 40610), (Start: 30 @40622 has 8 MA's), (Start: 35 @40655 has 1 MA's), (46, 40724), (59, 40775), (68, 40826),

Gene: Becksu_131 Start: 71737, Stop: 71408, Start Num: 31

Candidate Starts for Becksu_131:

(3, 71893), (4, 71887), (5, 71881), (6, 71869), (8, 71836), (9, 71830), (11, 71815), (Start: 18 @71770 has 3 MA's), (Start: 31 @71737 has 160 MA's), (33, 71716), (Start: 35 @71704 has 1 MA's), (36, 71701), (40, 71680), (41, 71665),

Gene: Belenaria_66 Start: 43543, Stop: 43067, Start Num: 13

Candidate Starts for Belenaria_66:

(Start: 13 @43543 has 22 MA's), (Start: 14 @43531 has 1 MA's), (Start: 29 @43471 has 14 MA's), (36, 43429), (52, 43342), (61, 43306), (66, 43279), (89, 43129), (92, 43087),

Gene: Belenaria_60 Start: 41066, Stop: 40731, Start Num: 31

Candidate Starts for Belenaria_60:

(1, 41285), (Start: 31 @41066 has 160 MA's), (34, 41042), (Start: 35 @41033 has 1 MA's), (37, 41027), (41, 40994), (46, 40964), (50, 40943), (65, 40886), (87, 40736),

Gene: Bench_135 Start: 71810, Stop: 71481, Start Num: 31

Candidate Starts for Bench_135:

(Start: 22 @71828 has 15 MA's), (Start: 31 @71810 has 160 MA's), (33, 71789), (Start: 35 @71777 has 1 MA's), (36, 71774), (40, 71753), (41, 71738),

Gene: BigBubba_136 Start: 71015, Stop: 70686, Start Num: 31

Candidate Starts for BigBubba_136:

(Start: 22 @71033 has 15 MA's), (Start: 31 @71015 has 160 MA's), (Start: 35 @70982 has 1 MA's), (36, 70979), (40, 70958), (41, 70943),

Gene: BilboSwaggins_131 Start: 72050, Stop: 71721, Start Num: 31

Candidate Starts for BilboSwaggins_131:

(Start: 25 @72065 has 5 MA's), (Start: 31 @72050 has 160 MA's), (Start: 35 @72017 has 1 MA's), (41, 71978), (46, 71948),

Gene: BillNye_5 Start: 1694, Stop: 2023, Start Num: 25

Candidate Starts for BillNye_5:

(Start: 25 @1694 has 5 MA's), (Start: 28 @1700 has 2 MA's), (33, 1730), (Start: 35 @1742 has 1 MA's), (41, 1781), (69, 1907), (72, 1931),

Gene: BillNye_251 Start: 126516, Stop: 126845, Start Num: 25

Candidate Starts for BillNye_251:

(Start: 25 @126516 has 5 MA's), (Start: 28 @126522 has 2 MA's), (33, 126552), (Start: 35 @126564 has 1 MA's), (41, 126603), (69, 126729), (72, 126753),

Gene: Bloom_20 Start: 9417, Stop: 9824, Start Num: 19

Candidate Starts for Bloom_20:

(Start: 19 @9417 has 18 MA's), (Start: 35 @9483 has 1 MA's), (41, 9525), (49, 9579), (57, 9606), (72, 9708), (80, 9753), (86, 9804),

Gene: Bloom_307 Start: 182892, Stop: 183299, Start Num: 19

Candidate Starts for Bloom_307:

(Start: 19 @182892 has 18 MA's), (Start: 35 @182958 has 1 MA's), (41, 183000), (49, 183054), (57, 183081), (72, 183183), (80, 183228), (86, 183279),

Gene: BobbyDazzler_59 Start: 41171, Stop: 40836, Start Num: 31

Candidate Starts for BobbyDazzler_59:

(Start: 31 @41171 has 160 MA's), (Start: 35 @41138 has 1 MA's), (37, 41132), (41, 41099), (46, 41069), (66, 40982), (87, 40841),

Gene: BobbyDazzler_65 Start: 43577, Stop: 43173, Start Num: 29

Candidate Starts for BobbyDazzler_65:

(Start: 13 @43649 has 22 MA's), (Start: 14 @43637 has 1 MA's), (Start: 29 @43577 has 14 MA's), (36, 43535), (52, 43448), (61, 43412), (66, 43385), (89, 43235), (92, 43193),

Gene: BobtimousPrime_49 Start: 40584, Stop: 40919, Start Num: 30

Candidate Starts for BobtimousPrime_49:

(26, 40572), (Start: 30 @40584 has 8 MA's), (Start: 35 @40617 has 1 MA's), (46, 40686), (59, 40737), (68, 40788),

Gene: Bogg_134 Start: 71566, Stop: 71219, Start Num: 22

Candidate Starts for Bogg_134:

(Start: 22 @71566 has 15 MA's), (Start: 31 @71548 has 160 MA's), (33, 71527), (Start: 35 @71515 has 1 MA's), (36, 71512), (40, 71491), (41, 71476),

Gene: Bonanza_66 Start: 43953, Stop: 43477, Start Num: 13

Candidate Starts for Bonanza_66:

(Start: 13 @43953 has 22 MA's), (Start: 14 @43941 has 1 MA's), (Start: 29 @43881 has 14 MA's), (36, 43839), (52, 43752), (61, 43716), (66, 43689), (89, 43539), (92, 43497),

Gene: Bonanza_60 Start: 41476, Stop: 41141, Start Num: 31

Candidate Starts for Bonanza_60:

(Start: 31 @41476 has 160 MA's), (Start: 35 @41443 has 1 MA's), (37, 41437), (41, 41404), (46, 41374), (66, 41287), (87, 41146),

Gene: BooTeria_8 Start: 4559, Stop: 4960, Start Num: 19

Candidate Starts for BooTeria_8:

(Start: 19 @4559 has 18 MA's), (48, 4715), (57, 4748), (74, 4859),

Gene: BooTeria_297 Start: 183468, Stop: 183869, Start Num: 19

Candidate Starts for BooTeria_297:

(Start: 19 @183468 has 18 MA's), (48, 183624), (57, 183657), (74, 183768),

Gene: Bradshaw_65 Start: 43611, Stop: 43135, Start Num: 13

Candidate Starts for Bradshaw_65:

(Start: 13 @43611 has 22 MA's), (Start: 14 @43599 has 1 MA's), (Start: 29 @43539 has 14 MA's), (36, 43497), (52, 43410), (61, 43374), (66, 43347), (89, 43197), (92, 43155),

Gene: Bradshaw_59 Start: 41134, Stop: 40799, Start Num: 31

Candidate Starts for Bradshaw_59:

(Start: 31 @41134 has 160 MA's), (34, 41110), (Start: 35 @41101 has 1 MA's), (37, 41095), (41, 41062), (46, 41032), (50, 41011), (65, 40954), (87, 40804),

Gene: Brewer_129 Start: 69738, Stop: 69409, Start Num: 31

Candidate Starts for Brewer_129:

(2, 69906), (9, 69831), (11, 69816), (Start: 18 @69771 has 3 MA's), (Start: 31 @69738 has 160 MA's), (33, 69717), (Start: 35 @69705 has 1 MA's), (41, 69666),

Gene: BruhMoment_104 Start: 63229, Stop: 62861, Start Num: 24

Candidate Starts for BruhMoment_104:

(Start: 24 @63229 has 1 MA's), (Start: 35 @63178 has 1 MA's), (43, 63118), (48, 63088), (60, 63043), (79, 62914),

Gene: Bruin_130 Start: 70212, Stop: 69865, Start Num: 22

Candidate Starts for Bruin_130:

(Start: 22 @70212 has 15 MA's), (Start: 31 @70194 has 160 MA's), (33, 70173), (Start: 35 @70161 has 1 MA's), (36, 70158), (40, 70137), (41, 70122),

Gene: Bryce_58 Start: 40879, Stop: 40544, Start Num: 31

Candidate Starts for Bryce_58:

(Start: 31 @40879 has 160 MA's), (Start: 35 @40846 has 1 MA's), (37, 40840), (41, 40807), (46, 40777), (66, 40690), (87, 40549),

Gene: Bryce_64 Start: 43357, Stop: 42881, Start Num: 13

Candidate Starts for Bryce_64:

(Start: 13 @43357 has 22 MA's), (Start: 14 @43345 has 1 MA's), (Start: 29 @43285 has 14 MA's), (36, 43243), (52, 43156), (61, 43120), (66, 43093), (89, 42943), (92, 42901),

Gene: Buck_134 Start: 72463, Stop: 72134, Start Num: 31

Candidate Starts for Buck_134:

(Start: 22 @72481 has 15 MA's), (Start: 31 @72463 has 160 MA's), (33, 72442), (Start: 35 @72430 has 1 MA's), (36, 72427), (40, 72406), (41, 72391),

Gene: Budgie_140 Start: 72650, Stop: 72321, Start Num: 31

Candidate Starts for Budgie_140:

(Start: 25 @72665 has 5 MA's), (Start: 31 @72650 has 160 MA's), (Start: 35 @72617 has 1 MA's), (41, 72578), (46, 72548), (68, 72446), (69, 72443),

Gene: BugsBunny_132 Start: 71452, Stop: 71180, Start Num: 40

Candidate Starts for BugsBunny_132:

(Start: 22 @71527 has 15 MA's), (Start: 31 @71509 has 160 MA's), (33, 71488), (Start: 35 @71476 has 1 MA's), (36, 71473), (40, 71452), (41, 71437),

Gene: Cactus_141 Start: 71625, Stop: 71278, Start Num: 22

Candidate Starts for Cactus_141:

(Start: 22 @71625 has 15 MA's), (Start: 31 @71607 has 160 MA's), (33, 71586), (Start: 35 @71574 has 1 MA's), (36, 71571), (40, 71550), (41, 71535),

Gene: Cborch11_49 Start: 40138, Stop: 40473, Start Num: 30

Candidate Starts for Cborch11_49:

(Start: 30 @40138 has 8 MA's), (Start: 35 @40171 has 1 MA's), (38, 40189), (46, 40240), (68, 40342), (70, 40351),

Gene: Chaewon_5 Start: 1449, Stop: 1772, Start Num: 28

Candidate Starts for Chaewon_5:

(Start: 28 @1449 has 2 MA's), (Start: 35 @1491 has 1 MA's), (41, 1530), (47, 1566), (64, 1623), (73, 1686),

Gene: Chaewon_257 Start: 127176, Stop: 127499, Start Num: 28

Candidate Starts for Chaewon_257:

(Start: 28 @127176 has 2 MA's), (Start: 35 @127218 has 1 MA's), (41, 127257), (47, 127293), (64, 127350), (73, 127413),

Gene: ChosenOne_134 Start: 70987, Stop: 70658, Start Num: 31

Candidate Starts for ChosenOne_134:

(Start: 22 @71005 has 15 MA's), (Start: 31 @70987 has 160 MA's), (33, 70966), (Start: 35 @70954 has 1 MA's), (36, 70951), (40, 70930), (41, 70915),

Gene: ChotaBhai_137 Start: 71772, Stop: 71443, Start Num: 31

Candidate Starts for ChotaBhai_137:

(Start: 22 @71790 has 15 MA's), (Start: 31 @71772 has 160 MA's), (33, 71751), (Start: 35 @71739 has 1 MA's), (36, 71736), (40, 71715), (41, 71700),

Gene: Circinus_4 Start: 1488, Stop: 1817, Start Num: 25

Candidate Starts for Circinus_4:

(21, 1479), (Start: 25 @1488 has 5 MA's), (33, 1524), (Start: 35 @1536 has 1 MA's), (41, 1575), (69, 1701), (72, 1725),

Gene: Circinus_249 Start: 125815, Stop: 126144, Start Num: 25

Candidate Starts for Circinus_249:

(21, 125806), (Start: 25 @125815 has 5 MA's), (33, 125851), (Start: 35 @125863 has 1 MA's), (41, 125902), (69, 126028), (72, 126052),

Gene: Cjw1_131 Start: 72188, Stop: 71859, Start Num: 31

Candidate Starts for Cjw1_131:

(Start: 22 @72206 has 15 MA's), (Start: 31 @72188 has 160 MA's), (33, 72167), (Start: 35 @72155 has 1 MA's), (36, 72152), (40, 72131), (41, 72116),

Gene: Command613_135 Start: 71551, Stop: 71222, Start Num: 31

Candidate Starts for Command613_135:

(2, 71719), (4, 71701), (8, 71650), (9, 71644), (11, 71629), (Start: 18 @71584 has 3 MA's), (Start: 31 @71551 has 160 MA's), (33, 71530), (Start: 35 @71518 has 1 MA's), (41, 71479), (46, 71449), (68, 71347), (69, 71344),

Gene: Contagion_129 Start: 70556, Stop: 70227, Start Num: 31

Candidate Starts for Contagion_129:

(Start: 22 @70574 has 15 MA's), (Start: 31 @70556 has 160 MA's), (33, 70535), (Start: 35 @70523 has 1 MA's), (36, 70520), (40, 70499), (41, 70484),

Gene: Cookies_134 Start: 72098, Stop: 71769, Start Num: 31

Candidate Starts for Cookies_134:

(Start: 22 @72116 has 15 MA's), (Start: 31 @72098 has 160 MA's), (33, 72077), (Start: 35 @72065 has 1 MA's), (36, 72062), (40, 72041), (41, 72026),

Gene: CosmicSans_59 Start: 41125, Stop: 40790, Start Num: 31

Candidate Starts for CosmicSans_59:

(Start: 31 @41125 has 160 MA's), (Start: 35 @41092 has 1 MA's), (37, 41086), (41, 41053), (46, 41023), (66, 40936), (87, 40795),

Gene: CosmicSans_65 Start: 43530, Stop: 43126, Start Num: 29

Candidate Starts for CosmicSans_65:

(Start: 13 @43602 has 22 MA's), (Start: 14 @43590 has 1 MA's), (Start: 29 @43530 has 14 MA's), (36, 43488), (52, 43401), (61, 43365), (66, 43338), (89, 43188), (92, 43146),

Gene: Cosmo_165 Start: 74069, Stop: 73749, Start Num: 31

Candidate Starts for Cosmo_165:

(Start: 31 @74069 has 160 MA's), (Start: 35 @74036 has 1 MA's), (50, 73946), (68, 73865), (69, 73862), (72, 73838), (84, 73760),

Gene: CrystalP_133 Start: 72050, Stop: 71721, Start Num: 31

Candidate Starts for CrystalP_133:

(Start: 25 @72065 has 5 MA's), (Start: 31 @72050 has 160 MA's), (Start: 35 @72017 has 1 MA's), (41, 71978), (46, 71948),

Gene: Cuke_47 Start: 33557, Stop: 33988, Start Num: 18

Candidate Starts for Cuke_47:

(Start: 18 @33557 has 3 MA's), (Start: 24 @33575 has 1 MA's), (Start: 35 @33629 has 1 MA's), (37, 33635), (53, 33740), (58, 33764), (66, 33821),

Gene: Czyszczone1_133 Start: 71002, Stop: 70673, Start Num: 31

Candidate Starts for Czyszczone1_133:

(Start: 22 @71020 has 15 MA's), (Start: 31 @71002 has 160 MA's), (33, 70981), (Start: 35 @70969 has 1 MA's), (36, 70966), (41, 70930),

Gene: Daikon_135 Start: 70855, Stop: 70526, Start Num: 31

Candidate Starts for Daikon_135:

(Start: 25 @70870 has 5 MA's), (Start: 31 @70855 has 160 MA's), (Start: 35 @70822 has 1 MA's), (41, 70783), (46, 70753),

Gene: Damien_48 Start: 40101, Stop: 40436, Start Num: 30

Candidate Starts for Damien_48:

(Start: 30 @40101 has 8 MA's), (Start: 35 @40134 has 1 MA's), (38, 40152), (46, 40203), (68, 40305), (70, 40314),

Gene: Dinger_65 Start: 43741, Stop: 43265, Start Num: 13

Candidate Starts for Dinger_65:

(Start: 13 @43741 has 22 MA's), (Start: 14 @43729 has 1 MA's), (Start: 29 @43669 has 14 MA's), (61, 43504), (66, 43477), (89, 43327), (91, 43303),

Gene: Dinger_58 Start: 41269, Stop: 40934, Start Num: 31

Candidate Starts for Dinger_58:

(1, 41488), (Start: 31 @41269 has 160 MA's), (33, 41248), (34, 41245), (Start: 35 @41236 has 1 MA's), (37, 41230), (41, 41197), (46, 41167), (66, 41080), (87, 40939),

Gene: DoctorDiddles_131 Start: 70509, Stop: 70180, Start Num: 31

Candidate Starts for DoctorDiddles_131:

(Start: 31 @70509 has 160 MA's), (33, 70488), (Start: 35 @70476 has 1 MA's), (36, 70473), (40, 70452), (41, 70437),

Gene: DrDrey_136 Start: 73246, Stop: 72917, Start Num: 31

Candidate Starts for DrDrey_136:

(2, 73414), (9, 73339), (11, 73324), (Start: 18 @73279 has 3 MA's), (Start: 31 @73246 has 160 MA's), (Start: 35 @73213 has 1 MA's), (36, 73210), (40, 73189), (41, 73174),

Gene: Dumbo_134 Start: 71215, Stop: 70868, Start Num: 22

Candidate Starts for Dumbo_134:

(Start: 22 @71215 has 15 MA's), (Start: 31 @71197 has 160 MA's), (33, 71176), (Start: 35 @71164 has 1 MA's), (36, 71161), (40, 71140), (41, 71125),

Gene: DunneganBoMo_303 Start: 183982, Stop: 184383, Start Num: 19

Candidate Starts for DunneganBoMo_303:

(Start: 19 @183982 has 18 MA's), (48, 184138), (57, 184171), (74, 184282),

Gene: DunneganBoMo_8 Start: 4570, Stop: 4971, Start Num: 19

Candidate Starts for DunneganBoMo_8:

(Start: 19 @4570 has 18 MA's), (48, 4726), (57, 4759), (74, 4870),

Gene: Dusk_134 Start: 71673, Stop: 71344, Start Num: 31

Candidate Starts for Dusk_134:

(Start: 31 @71673 has 160 MA's), (33, 71652), (Start: 35 @71640 has 1 MA's), (36, 71637), (40, 71616), (41, 71601),

Gene: E3_gp93 Start: 53631, Stop: 53960, Start Num: 28

Candidate Starts for E3_gp93:

(Start: 28 @53631 has 2 MA's), (33, 53661), (39, 53694), (72, 53865), (85, 53949),

Gene: Easy2Say_135 Start: 71971, Stop: 71642, Start Num: 31

Candidate Starts for Easy2Say_135:

(Start: 22 @71989 has 15 MA's), (Start: 31 @71971 has 160 MA's), (33, 71950), (Start: 35 @71938 has 1 MA's), (36, 71935), (40, 71914), (41, 71899),

Gene: Elite2014_133 Start: 70986, Stop: 70657, Start Num: 31

Candidate Starts for Elite2014_133:

(Start: 22 @71004 has 15 MA's), (Start: 31 @70986 has 160 MA's), (33, 70965), (Start: 35 @70953 has 1 MA's), (36, 70950), (40, 70929), (41, 70914),

Gene: Elph10_131 Start: 70322, Stop: 69975, Start Num: 22

Candidate Starts for Elph10_131:

(Start: 22 @70322 has 15 MA's), (Start: 31 @70304 has 160 MA's), (33, 70283), (Start: 35 @70271 has 1 MA's), (36, 70268), (41, 70232),

Gene: Emmetator_8 Start: 4730, Stop: 5131, Start Num: 19

Candidate Starts for Emmetator_8:

(Start: 19 @4730 has 18 MA's), (48, 4886), (57, 4919), (74, 5030),

Gene: Emmetator_302 Start: 183030, Stop: 183431, Start Num: 19

Candidate Starts for Emmetator_302:

(Start: 19 @183030 has 18 MA's), (48, 183186), (57, 183219), (74, 183330),

Gene: Emmina_134 Start: 70923, Stop: 70594, Start Num: 31

Candidate Starts for Emmina_134:

(Start: 22 @70941 has 15 MA's), (Start: 31 @70923 has 160 MA's), (33, 70902), (Start: 35 @70890 has 1 MA's), (36, 70887), (40, 70866), (41, 70851),

Gene: EniyanLRS_157 Start: 74396, Stop: 74076, Start Num: 31

Candidate Starts for EniyanLRS_157:

(Start: 31 @74396 has 160 MA's), (Start: 35 @74363 has 1 MA's), (68, 74192), (69, 74189), (72, 74165), (84, 74087),

Gene: Erik_65 Start: 43433, Stop: 42957, Start Num: 13

Candidate Starts for Erik_65:

(Start: 13 @43433 has 22 MA's), (Start: 14 @43421 has 1 MA's), (Start: 29 @43361 has 14 MA's), (36, 43319), (52, 43232), (61, 43196), (66, 43169), (89, 43019), (92, 42977),

Gene: Erik_59 Start: 40956, Stop: 40621, Start Num: 31

Candidate Starts for Erik_59:

(Start: 31 @40956 has 160 MA's), (Start: 35 @40923 has 1 MA's), (37, 40917), (41, 40884), (46, 40854), (66, 40767), (87, 40626),

Gene: Espica_66 Start: 43543, Stop: 43067, Start Num: 13

Candidate Starts for Espica_66:

(Start: 13 @43543 has 22 MA's), (Start: 14 @43531 has 1 MA's), (Start: 29 @43471 has 14 MA's), (36, 43429), (52, 43342), (61, 43306), (66, 43279), (89, 43129), (92, 43087),

Gene: Espica_60 Start: 41066, Stop: 40731, Start Num: 31

Candidate Starts for Espica_60:

(1, 41285), (Start: 31 @41066 has 160 MA's), (34, 41042), (Start: 35 @41033 has 1 MA's), (37, 41027), (41, 40994), (46, 40964), (50, 40943), (65, 40886), (87, 40736),

Gene: Eureka_133 Start: 71851, Stop: 71522, Start Num: 31

Candidate Starts for Eureka_133:

(Start: 22 @71869 has 15 MA's), (Start: 31 @71851 has 160 MA's), (33, 71830), (Start: 35 @71818 has 1 MA's), (36, 71815), (40, 71794), (41, 71779),

Gene: FairyPath_135 Start: 71874, Stop: 71545, Start Num: 31

Candidate Starts for FairyPath_135:

(Start: 31 @71874 has 160 MA's), (33, 71853), (Start: 35 @71841 has 1 MA's), (36, 71838), (40, 71817), (41, 71802),

Gene: Filch_135 Start: 71126, Stop: 70797, Start Num: 31

Candidate Starts for Filch_135:

(Start: 31 @71126 has 160 MA's), (33, 71105), (Start: 35 @71093 has 1 MA's), (36, 71090), (40, 71069), (41, 71054),

Gene: FireRed_136 Start: 71634, Stop: 71305, Start Num: 31

Candidate Starts for FireRed_136:

(3, 71790), (4, 71784), (5, 71778), (6, 71766), (8, 71733), (9, 71727), (11, 71712), (Start: 18 @71667 has 3 MA's), (Start: 31 @71634 has 160 MA's), (33, 71613), (Start: 35 @71601 has 1 MA's), (41, 71562), (46, 71532), (68, 71430), (69, 71427),

Gene: FloraSnap32_301 Start: 182314, Stop: 182721, Start Num: 19

Candidate Starts for FloraSnap32_301:

(Start: 19 @182314 has 18 MA's), (Start: 35 @182380 has 1 MA's), (41, 182422), (48, 182470), (81, 182653), (86, 182701),

Gene: FloraSnap32_16 Start: 8176, Stop: 8583, Start Num: 19

Candidate Starts for FloraSnap32_16:

(Start: 19 @8176 has 18 MA's), (Start: 35 @8242 has 1 MA's), (41, 8284), (48, 8332), (81, 8515), (86, 8563),

Gene: Flypotenuse_128 Start: 70424, Stop: 70095, Start Num: 31

Candidate Starts for Flypotenuse_128:

(Start: 25 @70439 has 5 MA's), (Start: 31 @70424 has 160 MA's), (Start: 35 @70391 has 1 MA's), (41, 70352), (46, 70322),

Gene: FoghornLeghorn_131 Start: 70074, Stop: 69745, Start Num: 31

Candidate Starts for FoghornLeghorn_131:

(Start: 22 @70092 has 15 MA's), (Start: 31 @70074 has 160 MA's), (33, 70053), (Start: 35 @70041 has 1 MA's), (36, 70038), (40, 70017), (41, 70002),

Gene: Fowlmouth_51 Start: 36978, Stop: 37385, Start Num: 18

Candidate Starts for Fowlmouth_51:

(Start: 18 @36978 has 3 MA's), (Start: 24 @36996 has 1 MA's), (Start: 35 @37050 has 1 MA's), (43, 37116), (44, 37119), (45, 37122), (53, 37161), (62, 37206), (69, 37266),

Gene: FrostedClock_19 Start: 8848, Stop: 9255, Start Num: 19

Candidate Starts for FrostedClock_19:

(Start: 19 @8848 has 18 MA's), (Start: 35 @8914 has 1 MA's), (41, 8956), (49, 9010), (57, 9037), (72, 9139), (80, 9184), (86, 9235),

Gene: FrostedClock_304 Start: 182648, Stop: 183055, Start Num: 19

Candidate Starts for FrostedClock_304:

(Start: 19 @182648 has 18 MA's), (Start: 35 @182714 has 1 MA's), (41, 182756), (49, 182810), (57, 182837), (72, 182939), (80, 182984), (86, 183035),

Gene: Gator_135 Start: 71964, Stop: 71635, Start Num: 31

Candidate Starts for Gator_135:

(Start: 31 @71964 has 160 MA's), (33, 71943), (Start: 35 @71931 has 1 MA's), (36, 71928), (40, 71907), (41, 71892),

Gene: Gemini_139 Start: 72022, Stop: 71693, Start Num: 31

Candidate Starts for Gemini_139:

(Start: 22 @72040 has 15 MA's), (Start: 31 @72022 has 160 MA's), (33, 72001), (Start: 35 @71989 has 1 MA's), (36, 71986), (40, 71965), (41, 71950),

Gene: Gibbles_111 Start: 76317, Stop: 75979, Start Num: 31

Candidate Starts for Gibbles_111:

(15, 76365), (Start: 31 @76317 has 160 MA's), (Start: 35 @76284 has 1 MA's), (46, 76215), (55, 76167), (66, 76113), (68, 76098), (82, 76017),

Gene: Glexan_137 Start: 72114, Stop: 71785, Start Num: 31

Candidate Starts for Glexan_137:

(Start: 31 @72114 has 160 MA's), (33, 72093), (Start: 35 @72081 has 1 MA's), (36, 72078), (40, 72057), (41, 72042),

Gene: Goku_132 Start: 72178, Stop: 71831, Start Num: 22

Candidate Starts for Goku_132:

(Start: 22 @72178 has 15 MA's), (Start: 31 @72160 has 160 MA's), (33, 72139), (Start: 35 @72127 has 1 MA's), (36, 72124), (40, 72103), (41, 72088),

Gene: GoldenSpark_138 Start: 71505, Stop: 71176, Start Num: 31

Candidate Starts for GoldenSpark_138:

(Start: 22 @71523 has 15 MA's), (Start: 31 @71505 has 160 MA's), (33, 71484), (Start: 35 @71472 has 1 MA's), (36, 71469), (40, 71448), (41, 71433),

Gene: Goldilocks_139 Start: 72119, Stop: 71772, Start Num: 22

Candidate Starts for Goldilocks_139:

(Start: 22 @72119 has 15 MA's), (Start: 31 @72101 has 160 MA's), (33, 72080), (Start: 35 @72068 has 1 MA's), (36, 72065), (40, 72044), (41, 72029),

Gene: Gollum_59 Start: 41067, Stop: 40732, Start Num: 31

Candidate Starts for Gollum_59:

(Start: 31 @41067 has 160 MA's), (Start: 35 @41034 has 1 MA's), (37, 41028), (41, 40995), (46, 40965), (66, 40878), (87, 40737),

Gene: Gollum_65 Start: 43544, Stop: 43068, Start Num: 13

Candidate Starts for Gollum_65:

(Start: 13 @43544 has 22 MA's), (Start: 14 @43532 has 1 MA's), (Start: 29 @43472 has 14 MA's), (36, 43430), (52, 43343), (61, 43307), (66, 43280), (89, 43130), (92, 43088),

Gene: GooberAzure_136 Start: 71505, Stop: 71176, Start Num: 31

Candidate Starts for GooberAzure_136:

(Start: 22 @71523 has 15 MA's), (Start: 31 @71505 has 160 MA's), (33, 71484), (Start: 35 @71472 has 1 MA's), (36, 71469), (40, 71448), (41, 71433),

Gene: Greep_137 Start: 72326, Stop: 71997, Start Num: 31

Candidate Starts for Greep_137:

(Start: 22 @72344 has 15 MA's), (Start: 31 @72326 has 160 MA's), (33, 72305), (Start: 35 @72293 has 1 MA's), (36, 72290), (40, 72269), (41, 72254),

Gene: HanKaySha_133 Start: 71459, Stop: 71130, Start Num: 31

Candidate Starts for HanKaySha_133:

(Start: 22 @71477 has 15 MA's), (Start: 31 @71459 has 160 MA's), (33, 71438), (Start: 35 @71426 has 1 MA's), (36, 71423), (40, 71402), (41, 71387),

Gene: Harella_139 Start: 72630, Stop: 72301, Start Num: 31

Candidate Starts for Harella_139:

(Start: 31 @72630 has 160 MA's), (33, 72609), (Start: 35 @72597 has 1 MA's), (36, 72594), (40, 72573), (41, 72558),

Gene: Harlequin_59 Start: 40914, Stop: 40579, Start Num: 31

Candidate Starts for Harlequin_59:

(Start: 31 @40914 has 160 MA's), (Start: 35 @40881 has 1 MA's), (37, 40875), (41, 40842), (46, 40812), (50, 40791), (66, 40725), (85, 40590), (87, 40584),

Gene: Harlequin_65 Start: 43392, Stop: 42916, Start Num: 13

Candidate Starts for Harlequin_65:

(Start: 13 @43392 has 22 MA's), (Start: 14 @43380 has 1 MA's), (Start: 29 @43320 has 14 MA's), (36, 43278), (52, 43191), (61, 43155), (66, 43128), (89, 42978), (92, 42936),

Gene: Henry_135 Start: 71930, Stop: 71586, Start Num: 25

Candidate Starts for Henry_135:

(Start: 25 @71930 has 5 MA's), (Start: 31 @71915 has 160 MA's), (Start: 35 @71882 has 1 MA's), (41, 71843), (46, 71813),

Gene: Highbury_129 Start: 69399, Stop: 69070, Start Num: 31

Candidate Starts for Highbury_129:

(Start: 31 @69399 has 160 MA's), (33, 69378), (Start: 35 @69366 has 1 MA's), (36, 69363), (40, 69342), (41, 69327),

Gene: Hiro_59 Start: 41385, Stop: 41050, Start Num: 31

Candidate Starts for Hiro_59:

(Start: 31 @41385 has 160 MA's), (Start: 35 @41352 has 1 MA's), (37, 41346), (41, 41313), (46, 41283), (66, 41196), (87, 41055),

Gene: Hiro_65 Start: 43863, Stop: 43387, Start Num: 13

Candidate Starts for Hiro_65:

(Start: 13 @43863 has 22 MA's), (Start: 14 @43851 has 1 MA's), (Start: 29 @43791 has 14 MA's), (36, 43749), (52, 43662), (61, 43626), (66, 43599), (89, 43449), (92, 43407),

Gene: Holt_139 Start: 72058, Stop: 71729, Start Num: 31

Candidate Starts for Holt_139:

(3, 72214), (4, 72208), (5, 72202), (6, 72190), (8, 72157), (9, 72151), (11, 72136), (Start: 18 @72091 has 3 MA's), (Start: 31 @72058 has 160 MA's), (33, 72037), (Start: 35 @72025 has 1 MA's), (41, 71986), (46, 71956), (68, 71854), (69, 71851),

Gene: Hoonter_136 Start: 71546, Stop: 71217, Start Num: 31

Candidate Starts for Hoonter_136:

(Start: 31 @71546 has 160 MA's), (33, 71525), (Start: 35 @71513 has 1 MA's), (36, 71510), (40, 71489), (41, 71474),

Gene: Hopey_132 Start: 71553, Stop: 71224, Start Num: 31

Candidate Starts for Hopey_132:

(Start: 22 @71571 has 15 MA's), (Start: 31 @71553 has 160 MA's), (33, 71532), (Start: 35 @71520 has 1 MA's), (36, 71517), (40, 71496), (41, 71481),

Gene: HufflyPuff_135 Start: 71860, Stop: 71531, Start Num: 31

Candidate Starts for HufflyPuff_135:

(3, 72016), (4, 72010), (5, 72004), (6, 71992), (8, 71959), (9, 71953), (11, 71938), (Start: 18 @71893 has 3 MA's), (Start: 31 @71860 has 160 MA's), (33, 71839), (Start: 35 @71827 has 1 MA's), (41, 71788), (46, 71758), (68, 71656), (69, 71653),

Gene: IHOP_137 Start: 71489, Stop: 71160, Start Num: 31

Candidate Starts for IHOP_137:

(Start: 22 @71507 has 15 MA's), (Start: 31 @71489 has 160 MA's), (33, 71468), (Start: 35 @71456 has 1 MA's), (36, 71453), (40, 71432), (41, 71417),

Gene: Icee_138 Start: 71365, Stop: 71036, Start Num: 31

Candidate Starts for Icee_138:

(Start: 25 @71380 has 5 MA's), (Start: 31 @71365 has 160 MA's), (Start: 35 @71332 has 1 MA's), (41, 71293),

Gene: Inca_132 Start: 69509, Stop: 69180, Start Num: 31

Candidate Starts for Inca_132:

(Start: 22 @69527 has 15 MA's), (Start: 31 @69509 has 160 MA's), (33, 69488), (Start: 35 @69476 has 1 MA's), (36, 69473), (40, 69452), (41, 69437),

Gene: JeTaime_131 Start: 71025, Stop: 70696, Start Num: 31

Candidate Starts for JeTaime_131:

(Start: 22 @71043 has 15 MA's), (Start: 31 @71025 has 160 MA's), (33, 71004), (Start: 35 @70992 has 1 MA's), (41, 70953),

Gene: Jester_64 Start: 43323, Stop: 42847, Start Num: 13

Candidate Starts for Jester_64:

(Start: 13 @43323 has 22 MA's), (Start: 14 @43311 has 1 MA's), (Start: 29 @43251 has 14 MA's), (36, 43209), (52, 43122), (61, 43086), (66, 43059), (89, 42909), (92, 42867),

Gene: Jester_58 Start: 40845, Stop: 40510, Start Num: 31

Candidate Starts for Jester_58:

(Start: 31 @40845 has 160 MA's), (Start: 35 @40812 has 1 MA's), (37, 40806), (41, 40773), (46, 40743), (50, 40722), (66, 40656), (85, 40521), (87, 40515),

Gene: KSunshine22_11 Start: 5160, Stop: 5561, Start Num: 19

Candidate Starts for KSunshine22_11:

(Start: 19 @5160 has 18 MA's), (48, 5316), (57, 5349), (74, 5460),

Gene: KSunshine22_303 Start: 182061, Stop: 182462, Start Num: 19

Candidate Starts for KSunshine22_303:

(Start: 19 @182061 has 18 MA's), (48, 182217), (57, 182250), (74, 182361),

Gene: Kampe_109 Start: 75739, Stop: 75401, Start Num: 31

Candidate Starts for Kampe_109:

(15, 75787), (Start: 31 @75739 has 160 MA's), (Start: 35 @75706 has 1 MA's), (46, 75637), (55, 75589), (66, 75535), (68, 75520), (82, 75439),

Gene: Kanye_130 Start: 71520, Stop: 71191, Start Num: 31

Candidate Starts for Kanye_130:

(Start: 22 @71538 has 15 MA's), (Start: 31 @71520 has 160 MA's), (33, 71499), (Start: 35 @71487 has 1 MA's), (36, 71484), (40, 71463), (41, 71448),

Gene: Kimchi_139 Start: 72244, Stop: 71897, Start Num: 22

Candidate Starts for Kimchi_139:

(Start: 22 @72244 has 15 MA's), (Start: 31 @72226 has 160 MA's), (33, 72205), (Start: 35 @72193 has 1 MA's), (36, 72190), (40, 72169), (41, 72154),

Gene: Konstantine_51 Start: 40932, Stop: 41267, Start Num: 30

Candidate Starts for Konstantine_51:

(26, 40920), (Start: 30 @40932 has 8 MA's), (Start: 35 @40965 has 1 MA's), (46, 41034), (59, 41085), (68, 41136), (70, 41145),

Gene: Kostya_134 Start: 71590, Stop: 71261, Start Num: 31

Candidate Starts for Kostya_134:

(2, 71758), (4, 71740), (8, 71689), (9, 71683), (11, 71668), (Start: 18 @71623 has 3 MA's), (Start: 31 @71590 has 160 MA's), (33, 71569), (Start: 35 @71557 has 1 MA's), (41, 71518), (46, 71488), (68, 71386), (69, 71383),

Gene: Krishelle_59 Start: 41494, Stop: 41159, Start Num: 31

Candidate Starts for Krishelle_59:

(Start: 31 @41494 has 160 MA's), (34, 41470), (Start: 35 @41461 has 1 MA's), (37, 41455), (41, 41422), (46, 41392), (50, 41371), (65, 41314), (87, 41164),

Gene: Krishelle_65 Start: 43971, Stop: 43495, Start Num: 13

Candidate Starts for Krishelle_65:

(Start: 13 @43971 has 22 MA's), (Start: 14 @43959 has 1 MA's), (Start: 29 @43899 has 14 MA's), (36, 43857), (52, 43770), (61, 43734), (66, 43707), (89, 43557), (92, 43515),

Gene: Laure_339 Start: 177636, Stop: 178016, Start Num: 20

Candidate Starts for Laure_339:

(20, 177636), (33, 177684), (43, 177756), (48, 177786), (63, 177846), (77, 177951), (78, 177954), (83, 177978),

Gene: Laure_21 Start: 9288, Stop: 9668, Start Num: 20

Candidate Starts for Laure_21:

(20, 9288), (33, 9336), (43, 9408), (48, 9438), (63, 9498), (77, 9603), (78, 9606), (83, 9630),

Gene: LeoJr_337 Start: 187594, Stop: 187965, Start Num: 23

Candidate Starts for LeoJr_337:

(Start: 23 @187594 has 3 MA's), (60, 187780), (73, 187873), (76, 187891),

Gene: LeoJr_24 Start: 10291, Stop: 10662, Start Num: 23

Candidate Starts for LeoJr_24:

(Start: 23 @10291 has 3 MA's), (60, 10477), (73, 10570), (76, 10588),

Gene: Lilac_131 Start: 72003, Stop: 71674, Start Num: 31

Candidate Starts for Lilac_131:

(Start: 22 @72021 has 15 MA's), (Start: 31 @72003 has 160 MA's), (33, 71982), (Start: 35 @71970 has 1 MA's), (36, 71967), (40, 71946), (41, 71931),

Gene: Lilizi_134 Start: 71733, Stop: 71404, Start Num: 31

Candidate Starts for Lilizi_134:

(Start: 22 @71751 has 15 MA's), (Start: 31 @71733 has 160 MA's), (33, 71712), (Start: 35 @71700 has 1 MA's), (36, 71697), (40, 71676), (41, 71661),

Gene: Lillie_59 Start: 41125, Stop: 40790, Start Num: 31

Candidate Starts for Lillie_59:

(Start: 31 @41125 has 160 MA's), (Start: 35 @41092 has 1 MA's), (37, 41086), (41, 41053), (46, 41023), (66, 40936), (87, 40795),

Gene: Lillie_65 Start: 43530, Stop: 43126, Start Num: 29

Candidate Starts for Lillie_65:

(Start: 13 @43602 has 22 MA's), (Start: 14 @43590 has 1 MA's), (Start: 29 @43530 has 14 MA's), (36, 43488), (52, 43401), (61, 43365), (66, 43338), (89, 43188), (92, 43146),

Gene: Lilpickle_133 Start: 70986, Stop: 70657, Start Num: 31

Candidate Starts for Lilpickle_133:

(Start: 22 @71004 has 15 MA's), (Start: 31 @70986 has 160 MA's), (33, 70965), (Start: 35 @70953 has 1 MA's), (36, 70950), (40, 70929), (41, 70914),

Gene: Livelaughbron_132 Start: 71995, Stop: 71666, Start Num: 31

Candidate Starts for Livelaughbron_132:

(Start: 22 @72013 has 15 MA's), (Start: 31 @71995 has 160 MA's), (33, 71974), (Start: 35 @71962 has 1 MA's), (36, 71959), (40, 71938), (41, 71923),

Gene: MISSy_135 Start: 71918, Stop: 71571, Start Num: 22

Candidate Starts for MISSy_135:

(Start: 22 @71918 has 15 MA's), (Start: 31 @71900 has 160 MA's), (33, 71879), (Start: 35 @71867 has 1 MA's), (36, 71864), (40, 71843), (41, 71828),

Gene: MPhalcon_134 Start: 71318, Stop: 70989, Start Num: 31

Candidate Starts for MPhalcon_134:

(Start: 22 @71336 has 15 MA's), (Start: 31 @71318 has 160 MA's), (33, 71297), (Start: 35 @71285 has 1 MA's), (36, 71282), (40, 71261), (41, 71246),

Gene: MadamMonkfish_133 Start: 70994, Stop: 70665, Start Num: 31

Candidate Starts for MadamMonkfish_133:

(Start: 22 @71012 has 15 MA's), (Start: 31 @70994 has 160 MA's), (33, 70973), (Start: 35 @70961 has 1 MA's), (36, 70958), (40, 70937), (41, 70922),

Gene: Manda_134 Start: 71452, Stop: 71105, Start Num: 23

Candidate Starts for Manda_134:

(Start: 23 @71452 has 3 MA's), (Start: 31 @71434 has 160 MA's), (33, 71413), (Start: 35 @71401 has 1 MA's), (36, 71398), (41, 71362), (46, 71332), (68, 71230), (69, 71227),

Gene: Marshmallow_134 Start: 72179, Stop: 71850, Start Num: 31

Candidate Starts for Marshmallow_134:

(Start: 22 @72197 has 15 MA's), (Start: 31 @72179 has 160 MA's), (33, 72158), (Start: 35 @72146 has 1 MA's), (36, 72143), (40, 72122), (41, 72107),

Gene: MaryV_150 Start: 72246, Stop: 71926, Start Num: 31

Candidate Starts for MaryV_150:

(Start: 31 @72246 has 160 MA's), (Start: 35 @72213 has 1 MA's), (50, 72123), (68, 72042), (69, 72039), (72, 72015), (84, 71937),

Gene: Maxxinista_135 Start: 70947, Stop: 70618, Start Num: 31

Candidate Starts for Maxxinista_135:

(Start: 22 @70965 has 15 MA's), (Start: 31 @70947 has 160 MA's), (33, 70926), (Start: 35 @70914 has 1 MA's), (36, 70911), (40, 70890), (41, 70875),

Gene: Megatron06_49 Start: 40677, Stop: 41012, Start Num: 31

Candidate Starts for Megatron06_49:

(10, 40596), (Start: 31 @40677 has 160 MA's), (Start: 35 @40710 has 1 MA's), (38, 40728), (46, 40779), (68, 40881), (70, 40890),

Gene: Mimi_18 Start: 8854, Stop: 9261, Start Num: 19

Candidate Starts for Mimi_18:

(Start: 19 @8854 has 18 MA's), (Start: 35 @8920 has 1 MA's), (41, 8962), (49, 9016), (57, 9043), (66, 9103), (72, 9145), (80, 9190), (86, 9241),

Gene: Mimi_303 Start: 181514, Stop: 181921, Start Num: 19

Candidate Starts for Mimi_303:

(Start: 19 @181514 has 18 MA's), (Start: 35 @181580 has 1 MA's), (41, 181622), (49, 181676), (57, 181703), (66, 181763), (72, 181805), (80, 181850), (86, 181901),

Gene: Mindy_136 Start: 71343, Stop: 71014, Start Num: 31

Candidate Starts for Mindy_136:

(2, 71511), (9, 71436), (11, 71421), (Start: 18 @71376 has 3 MA's), (Start: 31 @71343 has 160 MA's), (33, 71322), (Start: 35 @71310 has 1 MA's), (41, 71271),

Gene: Miniwave_127 Start: 71043, Stop: 70714, Start Num: 31

Candidate Starts for Miniwave_127:

(Start: 22 @71061 has 15 MA's), (Start: 31 @71043 has 160 MA's), (33, 71022), (Start: 35 @71010 has 1 MA's), (36, 71007), (40, 70986), (41, 70971),

Gene: Misfit_133 Start: 72192, Stop: 71863, Start Num: 31

Candidate Starts for Misfit_133:

(Start: 22 @72210 has 15 MA's), (Start: 31 @72192 has 160 MA's), (33, 72171), (Start: 35 @72159 has 1 MA's), (36, 72156), (40, 72135), (41, 72120),

Gene: Moldemort_136 Start: 71613, Stop: 71284, Start Num: 31

Candidate Starts for Moldemort_136:

(Start: 22 @71631 has 15 MA's), (Start: 31 @71613 has 160 MA's), (33, 71592), (Start: 35 @71580 has 1 MA's), (36, 71577), (40, 71556), (41, 71541),

Gene: MollyToe_127 Start: 68971, Stop: 68642, Start Num: 31

Candidate Starts for MollyToe_127:

(2, 69139), (9, 69064), (11, 69049), (Start: 18 @69004 has 3 MA's), (Start: 31 @68971 has 160 MA's), (33, 68950), (Start: 35 @68938 has 1 MA's), (41, 68899),

Gene: Mosby_130 Start: 70556, Stop: 70227, Start Num: 31

Candidate Starts for Mosby_130:

(Start: 22 @70574 has 15 MA's), (Start: 31 @70556 has 160 MA's), (33, 70535), (Start: 35 @70523 has 1 MA's), (36, 70520), (40, 70499), (41, 70484),

Gene: MrMiyagi_50 Start: 37362, Stop: 37769, Start Num: 18

Candidate Starts for MrMiyagi_50:

(Start: 18 @37362 has 3 MA's), (Start: 24 @37380 has 1 MA's), (Start: 35 @37434 has 1 MA's), (44, 37503), (45, 37506), (53, 37545), (62, 37590), (69, 37650),

Gene: Muntaha_267 Start: 126982, Stop: 127302, Start Num: 27

Candidate Starts for Muntaha_267:

(Start: 27 @126982 has 4 MA's), (33, 127015), (Start: 35 @127027 has 1 MA's), (41, 127066), (50, 127117), (67, 127177), (73, 127222), (77, 127249), (78, 127252),

Gene: Muntaha_4 Start: 1305, Stop: 1625, Start Num: 27

Candidate Starts for Muntaha_4:

(Start: 27 @1305 has 4 MA's), (33, 1338), (Start: 35 @1350 has 1 MA's), (41, 1389), (50, 1440), (67, 1500), (73, 1545), (77, 1572), (78, 1575),

Gene: Murica_137 Start: 72894, Stop: 72565, Start Num: 31

Candidate Starts for Murica_137:

(3, 73050), (4, 73044), (5, 73038), (6, 73026), (8, 72993), (9, 72987), (11, 72972), (Start: 18 @72927 has 3 MA's), (Start: 31 @72894 has 160 MA's), (33, 72873), (Start: 35 @72861 has 1 MA's), (41, 72822), (46, 72792), (68, 72690), (69, 72687),

Gene: Murphy_132 Start: 71321, Stop: 70992, Start Num: 31

Candidate Starts for Murphy_132:

(Start: 31 @71321 has 160 MA's), (33, 71300), (Start: 35 @71288 has 1 MA's), (36, 71285), (40, 71264), (41, 71249),

Gene: Myrale_134 Start: 72286, Stop: 71957, Start Num: 31

Candidate Starts for Myrale_134:

(2, 72454), (9, 72379), (11, 72364), (Start: 18 @72319 has 3 MA's), (Start: 31 @72286 has 160 MA's), (Start: 35 @72253 has 1 MA's), (36, 72250), (40, 72229), (41, 72214),

Gene: Naiad_64 Start: 43552, Stop: 43148, Start Num: 29

Candidate Starts for Naiad_64:

(Start: 13 @43624 has 22 MA's), (Start: 14 @43612 has 1 MA's), (Start: 29 @43552 has 14 MA's), (36, 43510), (52, 43423), (61, 43387), (66, 43360), (89, 43210), (92, 43168),

Gene: Naiad_58 Start: 41147, Stop: 40812, Start Num: 31

Candidate Starts for Naiad_58:

(Start: 31 @41147 has 160 MA's), (34, 41123), (Start: 35 @41114 has 1 MA's), (37, 41108), (41, 41075), (46, 41045), (50, 41024), (65, 40967), (87, 40817),

Gene: Nala_135 Start: 71607, Stop: 71278, Start Num: 31

Candidate Starts for Nala_135:

(Start: 22 @71625 has 15 MA's), (Start: 31 @71607 has 160 MA's), (33, 71586), (Start: 35 @71574 has 1 MA's), (36, 71571), (40, 71550), (41, 71535),

Gene: Nancinator_64 Start: 42941, Stop: 42465, Start Num: 13

Candidate Starts for Nancinator_64:

(Start: 13 @42941 has 22 MA's), (Start: 14 @42929 has 1 MA's), (Start: 29 @42869 has 14 MA's), (36, 42827), (52, 42740), (61, 42704), (66, 42677), (89, 42527), (92, 42485),

Gene: Nancinator_58 Start: 40464, Stop: 40129, Start Num: 31

Candidate Starts for Nancinator_58:

(Start: 31 @40464 has 160 MA's), (Start: 35 @40431 has 1 MA's), (37, 40425), (41, 40392), (46, 40362), (66, 40275), (87, 40134),

Gene: Natosaleda_58 Start: 41065, Stop: 40730, Start Num: 31

Candidate Starts for Natosaleda_58:

(1, 41284), (Start: 31 @41065 has 160 MA's), (34, 41041), (Start: 35 @41032 has 1 MA's), (37, 41026), (41, 40993), (46, 40963), (50, 40942), (65, 40885), (87, 40735),

Gene: Natosaleda_64 Start: 43470, Stop: 43066, Start Num: 29

Candidate Starts for Natosaleda_64:

(Start: 13 @43542 has 22 MA's), (Start: 14 @43530 has 1 MA's), (Start: 29 @43470 has 14 MA's), (36, 43428), (52, 43341), (61, 43305), (66, 43278), (89, 43128), (92, 43086),

Gene: NelitzaMV_131 Start: 69650, Stop: 69321, Start Num: 31

Candidate Starts for NelitzaMV_131:

(2, 69818), (9, 69743), (11, 69728), (Start: 18 @69683 has 3 MA's), (Start: 31 @69650 has 160 MA's), (33, 69629), (Start: 35 @69617 has 1 MA's), (41, 69578),

Gene: Nimrod_133 Start: 72106, Stop: 71777, Start Num: 31

Candidate Starts for Nimrod_133:

(Start: 22 @72124 has 15 MA's), (Start: 31 @72106 has 160 MA's), (33, 72085), (Start: 35 @72073 has 1 MA's), (36, 72070), (40, 72049), (41, 72034),

Gene: Nish23_50 Start: 40138, Stop: 40473, Start Num: 30

Candidate Starts for Nish23_50:

(Start: 30 @40138 has 8 MA's), (Start: 35 @40171 has 1 MA's), (38, 40189), (46, 40240), (68, 40342), (70, 40351),

Gene: NoSleep_133 Start: 70872, Stop: 70543, Start Num: 31

Candidate Starts for NoSleep_133:

(Start: 22 @70890 has 15 MA's), (Start: 31 @70872 has 160 MA's), (33, 70851), (Start: 35 @70839 has 1 MA's), (36, 70836), (40, 70815), (41, 70800),

Gene: NonchalantPear_134 Start: 70598, Stop: 70269, Start Num: 31

Candidate Starts for NonchalantPear_134:

(Start: 22 @70616 has 15 MA's), (Start: 31 @70598 has 160 MA's), (33, 70577), (Start: 35 @70565 has 1 MA's), (36, 70562), (40, 70541), (41, 70526),

Gene: Oaker_47 Start: 40392, Stop: 40727, Start Num: 31

Candidate Starts for Oaker_47:

(10, 40311), (Start: 31 @40392 has 160 MA's), (Start: 35 @40425 has 1 MA's), (46, 40494), (68, 40596), (70, 40605),

Gene: Octobien14_140 Start: 72798, Stop: 72403, Start Num: 29

Candidate Starts for Octobien14_140:

(16, 72849), (17, 72840), (Start: 29 @72798 has 14 MA's), (33, 72771), (Start: 35 @72759 has 1 MA's), (38, 72741), (42, 72702), (46, 72690), (68, 72588), (69, 72585), (70, 72579), (72, 72561), (77, 72528), (90, 72420), (91, 72417),

Gene: Orchid_108 Start: 75740, Stop: 75402, Start Num: 31

Candidate Starts for Orchid_108:

(15, 75788), (Start: 31 @75740 has 160 MA's), (Start: 35 @75707 has 1 MA's), (46, 75638), (55, 75590), (66, 75536), (68, 75521), (82, 75440),

Gene: OrionPax_129 Start: 70552, Stop: 70223, Start Num: 31

Candidate Starts for OrionPax_129:

(Start: 22 @70570 has 15 MA's), (Start: 31 @70552 has 160 MA's), (33, 70531), (Start: 35 @70519 has 1 MA's), (36, 70516), (40, 70495), (41, 70480),

Gene: PaddyBaddy_130 Start: 70607, Stop: 70260, Start Num: 22

Candidate Starts for PaddyBaddy_130:

(Start: 22 @70607 has 15 MA's), (Start: 31 @70589 has 160 MA's), (33, 70568), (Start: 35 @70556 has 1 MA's), (36, 70553), (40, 70532), (41, 70517),

Gene: Palpatine_133 Start: 72112, Stop: 71783, Start Num: 31

Candidate Starts for Palpatine_133:

(Start: 22 @72130 has 15 MA's), (Start: 31 @72112 has 160 MA's), (33, 72091), (Start: 35 @72079 has 1 MA's), (36, 72076), (40, 72055), (41, 72040),

Gene: Paperbeatsrock_132 Start: 71721, Stop: 71392, Start Num: 31

Candidate Starts for Paperbeatsrock_132:

(Start: 22 @71739 has 15 MA's), (Start: 31 @71721 has 160 MA's), (33, 71700), (Start: 35 @71688 has 1 MA's), (36, 71685), (40, 71664), (41, 71649),

Gene: Partridge_66 Start: 44015, Stop: 43611, Start Num: 29

Candidate Starts for Partridge_66:

(Start: 13 @44087 has 22 MA's), (Start: 14 @44075 has 1 MA's), (Start: 29 @44015 has 14 MA's), (61, 43850), (66, 43823), (89, 43673), (91, 43649),

Gene: Partridge_58 Start: 41426, Stop: 41091, Start Num: 31

Candidate Starts for Partridge_58:

(1, 41645), (Start: 31 @41426 has 160 MA's), (33, 41405), (34, 41402), (Start: 35 @41393 has 1 MA's), (37, 41387), (41, 41354), (46, 41324), (66, 41237), (87, 41096),

Gene: Pat3_133 Start: 71258, Stop: 70929, Start Num: 31

Candidate Starts for Pat3_133:

(Start: 31 @71258 has 160 MA's), (33, 71237), (Start: 35 @71225 has 1 MA's), (36, 71222), (40, 71201), (41, 71186),

Gene: Patbob_17 Start: 8860, Stop: 9267, Start Num: 19

Candidate Starts for Patbob_17:

(Start: 19 @8860 has 18 MA's), (41, 8968), (49, 9022), (56, 9046), (72, 9151), (86, 9247),

Gene: Patbob_303 Start: 184319, Stop: 184726, Start Num: 19

Candidate Starts for Patbob_303:

(Start: 19 @184319 has 18 MA's), (41, 184427), (49, 184481), (56, 184505), (72, 184610), (86, 184706),

Gene: PatrickStar_109 Start: 75819, Stop: 75481, Start Num: 31

Candidate Starts for PatrickStar_109:

(15, 75867), (Start: 31 @75819 has 160 MA's), (Start: 35 @75786 has 1 MA's), (46, 75717), (55, 75669), (66, 75615), (68, 75600), (82, 75519),

Gene: Petra64142_135 Start: 71754, Stop: 71407, Start Num: 22

Candidate Starts for Petra64142_135:

(Start: 22 @71754 has 15 MA's), (Start: 31 @71736 has 160 MA's), (33, 71715), (Start: 35 @71703 has 1 MA's), (36, 71700), (40, 71679), (41, 71664),

Gene: PhailMary_62 Start: 42619, Stop: 42143, Start Num: 13

Candidate Starts for PhailMary_62:

(Start: 13 @42619 has 22 MA's), (Start: 14 @42607 has 1 MA's), (Start: 29 @42547 has 14 MA's), (36, 42505), (52, 42418), (61, 42382), (66, 42355), (89, 42205), (92, 42163),

Gene: Phaja_137 Start: 71494, Stop: 71165, Start Num: 31

Candidate Starts for Phaja_137:

(Start: 22 @71512 has 15 MA's), (Start: 31 @71494 has 160 MA's), (33, 71473), (Start: 35 @71461 has 1 MA's), (36, 71458), (40, 71437), (41, 71422),

Gene: Pharsalus_131 Start: 71861, Stop: 71532, Start Num: 31

Candidate Starts for Pharsalus_131:

(Start: 22 @71879 has 15 MA's), (Start: 31 @71861 has 160 MA's), (33, 71840), (Start: 35 @71828 has 1 MA's), (36, 71825), (40, 71804), (41, 71789),

Gene: PhatBacter_136 Start: 71634, Stop: 71305, Start Num: 31

Candidate Starts for PhatBacter_136:

(3, 71790), (4, 71784), (5, 71778), (6, 71766), (8, 71733), (9, 71727), (11, 71712), (Start: 18 @71667 has 3 MA's), (Start: 31 @71634 has 160 MA's), (33, 71613), (Start: 35 @71601 has 1 MA's), (41, 71562), (46, 71532), (68, 71430), (69, 71427),

Gene: Phaux_135 Start: 72260, Stop: 71931, Start Num: 31

Candidate Starts for Phaux_135:

(3, 72416), (4, 72410), (5, 72404), (6, 72392), (8, 72359), (9, 72353), (11, 72338), (Start: 18 @72293 has 3 MA's), (Start: 31 @72260 has 160 MA's), (33, 72239), (Start: 35 @72227 has 1 MA's), (41, 72188), (46, 72158), (68, 72056), (69, 72053),

Gene: Phrampa_299 Start: 183572, Stop: 183967, Start Num: 19

Candidate Starts for Phrampa_299:

(Start: 19 @183572 has 18 MA's), (41, 183680), (48, 183728), (49, 183734), (51, 183737), (72, 183863), (88, 183962),

Gene: Phrampa_15 Start: 7201, Stop: 7596, Start Num: 19

Candidate Starts for Phrampa_15:

(Start: 19 @7201 has 18 MA's), (41, 7309), (48, 7357), (49, 7363), (51, 7366), (72, 7492), (88, 7591),

Gene: Phrankenstien_59 Start: 41071, Stop: 40736, Start Num: 31

Candidate Starts for Phrankenstien_59:

(Start: 31 @41071 has 160 MA's), (Start: 35 @41038 has 1 MA's), (37, 41032), (41, 40999), (46, 40969), (66, 40882), (87, 40741),

Gene: Phrankenstien_65 Start: 43548, Stop: 43072, Start Num: 13

Candidate Starts for Phrankenstien_65:

(Start: 13 @43548 has 22 MA's), (Start: 14 @43536 has 1 MA's), (Start: 29 @43476 has 14 MA's), (36, 43434), (52, 43347), (61, 43311), (66, 43284), (89, 43134), (92, 43092),

Gene: Phreeze_46 Start: 39698, Stop: 40033, Start Num: 30

Candidate Starts for Phreeze_46:

(26, 39686), (Start: 30 @39698 has 8 MA's), (Start: 35 @39731 has 1 MA's), (46, 39800), (59, 39851), (68, 39902),

Gene: Phrux_129 Start: 70339, Stop: 70010, Start Num: 31

Candidate Starts for Phrux_129:

(Start: 31 @70339 has 160 MA's), (33, 70318), (Start: 35 @70306 has 1 MA's), (36, 70303), (40, 70282), (41, 70267),

Gene: Policronamos_134 Start: 71964, Stop: 71635, Start Num: 31

Candidate Starts for Policronamos_134:

(3, 72120), (4, 72114), (5, 72108), (6, 72096), (8, 72063), (9, 72057), (11, 72042), (Start: 18 @71997 has 3 MA's), (Start: 31 @71964 has 160 MA's), (33, 71943), (Start: 35 @71931 has 1 MA's), (41, 71892), (46, 71862), (68, 71760), (69, 71757),

Gene: Porky_135 Start: 71958, Stop: 71611, Start Num: 22

Candidate Starts for Porky_135:

(Start: 22 @71958 has 15 MA's), (Start: 31 @71940 has 160 MA's), (33, 71919), (Start: 35 @71907 has 1 MA's), (36, 71904), (40, 71883), (41, 71868),

Gene: Predator_46 Start: 37954, Stop: 38274, Start Num: 30

Candidate Starts for Predator_46:

(Start: 30 @37954 has 8 MA's), (Start: 35 @37987 has 1 MA's), (38, 38005), (46, 38056), (69, 38161),

Gene: Ptowny_127 Start: 69309, Stop: 68980, Start Num: 31

Candidate Starts for Ptowny_127:

(Start: 31 @69309 has 160 MA's), (33, 69288), (Start: 35 @69276 has 1 MA's), (36, 69273), (40, 69252), (41, 69237),

Gene: Pumpkin_133 Start: 70615, Stop: 70286, Start Num: 31

Candidate Starts for Pumpkin_133:

(Start: 22 @70633 has 15 MA's), (Start: 31 @70615 has 160 MA's), (33, 70594), (Start: 35 @70582 has 1 MA's), (36, 70579), (40, 70558), (41, 70543),

Gene: Quallification_134 Start: 72199, Stop: 71870, Start Num: 31

Candidate Starts for Quallification_134:

(Start: 22 @72217 has 15 MA's), (Start: 31 @72199 has 160 MA's), (33, 72178), (Start: 35 @72166 has 1 MA's), (36, 72163), (40, 72142), (41, 72127),

Gene: RER2_53 Start: 37997, Stop: 37662, Start Num: 31

Candidate Starts for RER2_53:

(Start: 31 @37997 has 160 MA's), (Start: 35 @37964 has 1 MA's), (37, 37958), (41, 37925), (46, 37895), (66, 37808), (87, 37667),

Gene: RER2_59 Start: 40402, Stop: 39998, Start Num: 29

Candidate Starts for RER2_59:

(Start: 13 @40474 has 22 MA's), (Start: 14 @40462 has 1 MA's), (Start: 29 @40402 has 14 MA's), (36, 40360), (52, 40273), (61, 40237), (66, 40210), (89, 40060), (92, 40018),

Gene: RGL3_60 Start: 42001, Stop: 41582, Start Num: 29

Candidate Starts for RGL3_60:

(Start: 29 @42001 has 14 MA's), (32, 41986), (54, 41866), (61, 41836), (65, 41818), (66, 41809), (73, 41761), (93, 41599),

Gene: RGL3_51 Start: 38672, Stop: 38334, Start Num: 31

Candidate Starts for RGL3_51:

(Start: 31 @38672 has 160 MA's), (Start: 35 @38639 has 1 MA's), (47, 38564), (54, 38540), (55, 38537), (60, 38516), (65, 38489), (71, 38447), (87, 38339),

Gene: Racecar_308 Start: 183126, Stop: 183533, Start Num: 19

Candidate Starts for Racecar_308:

(Start: 19 @183126 has 18 MA's), (Start: 35 @183192 has 1 MA's), (41, 183234), (49, 183288), (57, 183315), (72, 183417), (80, 183462), (86, 183513),

Gene: Racecar_19 Start: 9417, Stop: 9824, Start Num: 19

Candidate Starts for Racecar_19:

(Start: 19 @9417 has 18 MA's), (Start: 35 @9483 has 1 MA's), (41, 9525), (49, 9579), (57, 9606), (72, 9708), (80, 9753), (86, 9804),

Gene: Rakim_134 Start: 71173, Stop: 70844, Start Num: 31

Candidate Starts for Rakim_134:

(2, 71341), (9, 71266), (11, 71251), (Start: 18 @71206 has 3 MA's), (Start: 31 @71173 has 160 MA's), (33, 71152), (Start: 35 @71140 has 1 MA's), (41, 71101),

Gene: Rasputin_65 Start: 43572, Stop: 43096, Start Num: 13

Candidate Starts for Rasputin_65:

(Start: 13 @43572 has 22 MA's), (Start: 14 @43560 has 1 MA's), (Start: 29 @43500 has 14 MA's), (36, 43458), (52, 43371), (61, 43335), (66, 43308), (89, 43158), (92, 43116),

Gene: Rasputin_59 Start: 41095, Stop: 40760, Start Num: 31

Candidate Starts for Rasputin_59:

(Start: 31 @41095 has 160 MA's), (Start: 35 @41062 has 1 MA's), (37, 41056), (41, 41023), (46, 40993), (66, 40906), (87, 40765),

Gene: ReginaGlobina_332 Start: 187589, Stop: 187960, Start Num: 23

Candidate Starts for ReginaGlobina_332:

(Start: 23 @187589 has 3 MA's), (Start: 35 @187640 has 1 MA's), (60, 187775), (69, 187838), (79, 187904),

Gene: ReginaGlobina_21 Start: 10142, Stop: 10513, Start Num: 23

Candidate Starts for ReginaGlobina_21:

(Start: 23 @10142 has 3 MA's), (Start: 35 @10193 has 1 MA's), (60, 10328), (69, 10391), (79, 10457),

Gene: RexFury_64 Start: 43560, Stop: 43156, Start Num: 29

Candidate Starts for RexFury_64:

(Start: 13 @43632 has 22 MA's), (Start: 14 @43620 has 1 MA's), (Start: 29 @43560 has 14 MA's), (36, 43518), (52, 43431), (61, 43395), (66, 43368), (89, 43218), (92, 43176),

Gene: RexFury_58 Start: 41155, Stop: 40820, Start Num: 31

Candidate Starts for RexFury_58:

(1, 41374), (Start: 31 @41155 has 160 MA's), (34, 41131), (Start: 35 @41122 has 1 MA's), (37, 41116), (41, 41083), (46, 41053), (50, 41032), (65, 40975), (87, 40825),

Gene: Rhodalysa_65 Start: 43530, Stop: 43126, Start Num: 29

Candidate Starts for Rhodalysa_65:

(Start: 13 @43602 has 22 MA's), (Start: 14 @43590 has 1 MA's), (Start: 29 @43530 has 14 MA's), (36, 43488), (52, 43401), (61, 43365), (66, 43338), (89, 43188), (92, 43146),

Gene: Rhodalysa_59 Start: 41125, Stop: 40790, Start Num: 31

Candidate Starts for Rhodalysa_59:

(Start: 31 @41125 has 160 MA's), (Start: 35 @41092 has 1 MA's), (37, 41086), (41, 41053), (46, 41023), (66, 40936), (87, 40795),

Gene: Rimmer_130 Start: 71092, Stop: 70745, Start Num: 22

Candidate Starts for Rimmer_130:

(Start: 22 @71092 has 15 MA's), (Start: 31 @71074 has 160 MA's), (33, 71053), (Start: 35 @71041 has 1 MA's), (36, 71038), (40, 71017), (41, 71002),

Gene: RiverMonster_132 Start: 71234, Stop: 70905, Start Num: 31

Candidate Starts for RiverMonster_132:

(Start: 22 @71252 has 15 MA's), (Start: 31 @71234 has 160 MA's), (33, 71213), (Start: 35 @71201 has 1 MA's), (36, 71198), (40, 71177), (41, 71162),

Gene: RobinSparkles_118 Start: 76904, Stop: 76569, Start Num: 31

Candidate Starts for RobinSparkles_118:

(15, 76952), (Start: 31 @76904 has 160 MA's), (Start: 35 @76871 has 1 MA's), (46, 76802), (55, 76754), (66, 76700), (68, 76685), (75, 76643), (82, 76604),

Gene: Rockabye_18 Start: 9153, Stop: 9560, Start Num: 19

Candidate Starts for Rockabye_18:

(Start: 19 @9153 has 18 MA's), (48, 9309), (57, 9342), (72, 9444), (73, 9450), (79, 9486), (86, 9540),

Gene: Rockabye_315 Start: 181766, Stop: 182173, Start Num: 19

Candidate Starts for Rockabye_315:

(Start: 19 @181766 has 18 MA's), (48, 181922), (57, 181955), (72, 182057), (73, 182063), (79, 182099), (86, 182153),

Gene: Saints25_129 Start: 69399, Stop: 69070, Start Num: 31

Candidate Starts for Saints25_129:

(Start: 31 @69399 has 160 MA's), (33, 69378), (Start: 35 @69366 has 1 MA's), (36, 69363), (40, 69342), (41, 69327),

Gene: Sassay_128 Start: 69536, Stop: 69189, Start Num: 22

Candidate Starts for Sassay_128:

(Start: 22 @69536 has 15 MA's), (Start: 31 @69518 has 160 MA's), (33, 69497), (Start: 35 @69485 has 1 MA's), (36, 69482), (40, 69461), (41, 69446),

Gene: ShamWow_133 Start: 72051, Stop: 71722, Start Num: 31

Candidate Starts for ShamWow_133:

(Start: 22 @72069 has 15 MA's), (Start: 31 @72051 has 160 MA's), (33, 72030), (Start: 35 @72018 has 1 MA's), (36, 72015), (40, 71994), (41, 71979),

Gene: ShereKhan_133 Start: 72445, Stop: 72116, Start Num: 31

Candidate Starts for ShereKhan_133:

(Start: 22 @72463 has 15 MA's), (Start: 31 @72445 has 160 MA's), (33, 72424), (Start: 35 @72412 has 1 MA's), (36, 72409), (40, 72388), (41, 72373),

Gene: Shuman_66 Start: 43553, Stop: 43077, Start Num: 13

Candidate Starts for Shuman_66:

(Start: 13 @43553 has 22 MA's), (Start: 14 @43541 has 1 MA's), (Start: 29 @43481 has 14 MA's), (36, 43439), (52, 43352), (61, 43316), (66, 43289), (89, 43139), (92, 43097),

Gene: Shuman_60 Start: 41076, Stop: 40741, Start Num: 31

Candidate Starts for Shuman_60:

(Start: 31 @41076 has 160 MA's), (Start: 35 @41043 has 1 MA's), (37, 41037), (41, 41004), (46, 40974), (66, 40887), (87, 40746),

Gene: Simpliphy_132 Start: 70805, Stop: 70476, Start Num: 31

Candidate Starts for Simpliphy_132:

(Start: 31 @70805 has 160 MA's), (33, 70784), (Start: 35 @70772 has 1 MA's), (36, 70769), (40, 70748), (41, 70733),

Gene: SirDuracell_136 Start: 71666, Stop: 71337, Start Num: 31

Candidate Starts for SirDuracell_136:

(Start: 25 @71681 has 5 MA's), (Start: 31 @71666 has 160 MA's), (Start: 35 @71633 has 1 MA's), (41, 71594), (46, 71564), (68, 71462), (69, 71459),

Gene: SophKB_131 Start: 71150, Stop: 70821, Start Num: 31

Candidate Starts for SophKB_131:

(2, 71318), (9, 71243), (11, 71228), (Start: 18 @71183 has 3 MA's), (Start: 31 @71150 has 160 MA's), (33, 71129), (Start: 35 @71117 has 1 MA's), (36, 71114), (40, 71093), (41, 71078),

Gene: Sotrice96_138 Start: 72351, Stop: 72022, Start Num: 31

Candidate Starts for Sotrice96_138:

(Start: 22 @72369 has 15 MA's), (Start: 31 @72351 has 160 MA's), (33, 72330), (Start: 35 @72318 has 1 MA's), (36, 72315), (40, 72294), (41, 72279),

Gene: StCroix_58 Start: 41147, Stop: 40812, Start Num: 31

Candidate Starts for StCroix_58:

(Start: 31 @41147 has 160 MA's), (34, 41123), (Start: 35 @41114 has 1 MA's), (37, 41108), (41, 41075), (46, 41045), (50, 41024), (65, 40967), (87, 40817),

Gene: StCroix_64 Start: 43552, Stop: 43148, Start Num: 29

Candidate Starts for StCroix_64:

(Start: 13 @43624 has 22 MA's), (Start: 14 @43612 has 1 MA's), (Start: 29 @43552 has 14 MA's), (36, 43510), (52, 43423), (61, 43387), (66, 43360), (89, 43210), (92, 43168),

Gene: Stank_137 Start: 72298, Stop: 71969, Start Num: 31

Candidate Starts for Stank_137:

(Start: 22 @72316 has 15 MA's), (Start: 31 @72298 has 160 MA's), (33, 72277), (Start: 35 @72265 has 1 MA's), (36, 72262), (40, 72241), (41, 72226),

Gene: Stark_131 Start: 71053, Stop: 70724, Start Num: 31

Candidate Starts for Stark_131:

(Start: 22 @71071 has 15 MA's), (Start: 31 @71053 has 160 MA's), (33, 71032), (Start: 35 @71020 has 1 MA's), (36, 71017), (40, 70996), (41, 70981),

Gene: StellaBean_131 Start: 71803, Stop: 71474, Start Num: 31

Candidate Starts for StellaBean_131:

(Start: 22 @71821 has 15 MA's), (Start: 31 @71803 has 160 MA's), (33, 71782), (Start: 35 @71770 has 1 MA's), (36, 71767), (40, 71746), (41, 71731),

Gene: Stewart25555_12 Start: 5769, Stop: 6158, Start Num: 19

Candidate Starts for Stewart25555_12:

(Start: 19 @5769 has 18 MA's), (Start: 35 @5835 has 1 MA's), (74, 6069), (82, 6114),

Gene: StolenFromERC_136 Start: 71643, Stop: 71314, Start Num: 31

Candidate Starts for StolenFromERC_136:

(Start: 22 @71661 has 15 MA's), (Start: 31 @71643 has 160 MA's), (33, 71622), (Start: 35 @71610 has 1 MA's), (36, 71607), (40, 71586), (41, 71571),

Gene: StormChicken_135 Start: 72268, Stop: 71939, Start Num: 31

Candidate Starts for StormChicken_135:

(Start: 22 @72286 has 15 MA's), (Start: 31 @72268 has 160 MA's), (33, 72247), (Start: 35 @72235 has 1 MA's), (36, 72232), (40, 72211), (41, 72196),

Gene: Swann_65 Start: 43600, Stop: 43124, Start Num: 13

Candidate Starts for Swann_65:

(Start: 13 @43600 has 22 MA's), (Start: 14 @43588 has 1 MA's), (Start: 29 @43528 has 14 MA's), (36, 43486), (52, 43399), (61, 43363), (66, 43336), (89, 43186), (92, 43144),

Gene: Swann_59 Start: 41123, Stop: 40788, Start Num: 31

Candidate Starts for Swann_59:

(Start: 31 @41123 has 160 MA's), (Start: 35 @41090 has 1 MA's), (37, 41084), (41, 41051), (46, 41021), (66, 40934), (87, 40793),

Gene: TBrady12_138 Start: 71735, Stop: 71406, Start Num: 31

Candidate Starts for TBrady12_138:

(Start: 22 @71753 has 15 MA's), (Start: 31 @71735 has 160 MA's), (33, 71714), (Start: 35 @71702 has 1 MA's), (36, 71699), (40, 71678), (41, 71663),

Gene: TWAMP_65 Start: 43530, Stop: 43126, Start Num: 29

Candidate Starts for TWAMP_65:

(Start: 13 @43602 has 22 MA's), (Start: 14 @43590 has 1 MA's), (Start: 29 @43530 has 14 MA's), (36, 43488), (52, 43401), (61, 43365), (66, 43338), (89, 43188), (92, 43146),

Gene: TWAMP_59 Start: 41125, Stop: 40790, Start Num: 31

Candidate Starts for TWAMP_59:

(Start: 31 @41125 has 160 MA's), (Start: 35 @41092 has 1 MA's), (37, 41086), (41, 41053), (46, 41023), (66, 40936), (87, 40795),

Gene: Takoda_67 Start: 43931, Stop: 43455, Start Num: 13

Candidate Starts for Takoda_67:

(Start: 13 @43931 has 22 MA's), (Start: 14 @43919 has 1 MA's), (Start: 29 @43859 has 14 MA's), (61, 43694), (66, 43667), (89, 43517),

Gene: Takoda_59 Start: 41309, Stop: 40974, Start Num: 31

Candidate Starts for Takoda_59:

(Start: 31 @41309 has 160 MA's), (34, 41285), (Start: 35 @41276 has 1 MA's), (37, 41270), (41, 41237), (66, 41120), (87, 40979),

Gene: Talia1610_304 Start: 183328, Stop: 183735, Start Num: 19

Candidate Starts for Talia1610_304:

(Start: 19 @183328 has 18 MA's), (Start: 35 @183394 has 1 MA's), (41, 183436), (49, 183490), (57, 183517), (66, 183577), (72, 183619), (80, 183664), (86, 183715),

Gene: Talia1610_18 Start: 8856, Stop: 9263, Start Num: 19

Candidate Starts for Talia1610_18:

(Start: 19 @8856 has 18 MA's), (Start: 35 @8922 has 1 MA's), (41, 8964), (49, 9018), (57, 9045), (66, 9105), (72, 9147), (80, 9192), (86, 9243),

Gene: Tarkin_132 Start: 72310, Stop: 71981, Start Num: 31

Candidate Starts for Tarkin_132:

(Start: 22 @72328 has 15 MA's), (Start: 31 @72310 has 160 MA's), (33, 72289), (Start: 35 @72277 has 1 MA's), (36, 72274), (40, 72253), (41, 72238),

Gene: TeamEdward_133 Start: 71886, Stop: 71557, Start Num: 31

Candidate Starts for TeamEdward_133:

(Start: 22 @71904 has 15 MA's), (Start: 31 @71886 has 160 MA's), (33, 71865), (Start: 35 @71853 has 1 MA's), (36, 71850), (40, 71829), (41, 71814),

Gene: TeardropMSU_134 Start: 71219, Stop: 70890, Start Num: 31

Candidate Starts for TeardropMSU_134:

(Start: 31 @71219 has 160 MA's), (33, 71198), (Start: 35 @71186 has 1 MA's), (36, 71183), (40, 71162), (41, 71147),

Gene: Terminus_136 Start: 72192, Stop: 71863, Start Num: 31

Candidate Starts for Terminus_136:

(Start: 22 @72210 has 15 MA's), (Start: 31 @72192 has 160 MA's), (33, 72171), (Start: 35 @72159 has 1 MA's), (36, 72156), (40, 72135), (41, 72120),

Gene: Thresher_135 Start: 72137, Stop: 71790, Start Num: 22

Candidate Starts for Thresher_135:

(Start: 22 @72137 has 15 MA's), (Start: 31 @72119 has 160 MA's), (33, 72098), (Start: 35 @72086 has 1 MA's), (41, 72047),

Gene: Thumb_48 Start: 40133, Stop: 40468, Start Num: 30

Candidate Starts for Thumb_48:

(Start: 30 @40133 has 8 MA's), (Start: 35 @40166 has 1 MA's), (46, 40235), (68, 40337), (70, 40346),

Gene: Tomaszewski_127 Start: 70748, Stop: 70401, Start Num: 22

Candidate Starts for Tomaszewski_127:

(Start: 22 @70748 has 15 MA's), (Start: 31 @70730 has 160 MA's), (33, 70709), (Start: 35 @70697 has 1 MA's), (36, 70694), (40, 70673), (41, 70658),

Gene: Toto_131 Start: 72051, Stop: 71722, Start Num: 31

Candidate Starts for Toto_131:

(Start: 22 @72069 has 15 MA's), (Start: 31 @72051 has 160 MA's), (33, 72030), (Start: 35 @72018 has 1 MA's), (36, 72015), (40, 71994), (41, 71979),

Gene: Traaww1_129 Start: 70599, Stop: 70270, Start Num: 31

Candidate Starts for Traaww1_129:

(Start: 25 @70614 has 5 MA's), (Start: 31 @70599 has 160 MA's), (Start: 35 @70566 has 1 MA's), (41, 70527), (46, 70497),

Gene: Tuco_139 Start: 73278, Stop: 72949, Start Num: 31

Candidate Starts for Tuco_139:

(Start: 31 @73278 has 160 MA's), (33, 73257), (Start: 35 @73245 has 1 MA's), (36, 73242), (40, 73221), (41, 73206),

Gene: UhSalsa_65 Start: 43531, Stop: 43067, Start Num: 14

Candidate Starts for UhSalsa_65:

(Start: 13 @43543 has 22 MA's), (Start: 14 @43531 has 1 MA's), (Start: 29 @43471 has 14 MA's), (36, 43429), (52, 43342), (61, 43306), (66, 43279), (89, 43129), (92, 43087),

Gene: UhSalsa_59 Start: 41066, Stop: 40731, Start Num: 31

Candidate Starts for UhSalsa_59:

(1, 41285), (Start: 31 @41066 has 160 MA's), (34, 41042), (Start: 35 @41033 has 1 MA's), (37, 41027), (41, 40994), (46, 40964), (50, 40943), (65, 40886), (87, 40736),

Gene: Ukulele_128 Start: 70632, Stop: 70285, Start Num: 22

Candidate Starts for Ukulele_128:

(Start: 22 @70632 has 15 MA's), (Start: 31 @70614 has 160 MA's), (33, 70593), (Start: 35 @70581 has 1 MA's), (36, 70578), (40, 70557), (41, 70542),

Gene: WaddleDee_8 Start: 4570, Stop: 4971, Start Num: 19

Candidate Starts for WaddleDee_8:

(Start: 19 @4570 has 18 MA's), (48, 4726), (57, 4759), (74, 4870),

Gene: WaddleDee_299 Start: 182765, Stop: 183166, Start Num: 19

Candidate Starts for WaddleDee_299:

(Start: 19 @182765 has 18 MA's), (48, 182921), (57, 182954), (74, 183065),

Gene: Wakanda_262 Start: 126045, Stop: 126365, Start Num: 27

Candidate Starts for Wakanda_262:

(Start: 27 @126045 has 4 MA's), (33, 126078), (Start: 35 @126090 has 1 MA's), (41, 126129), (50, 126180), (73, 126285), (77, 126312), (78, 126315),

Gene: Wakanda_3 Start: 1204, Stop: 1524, Start Num: 27

Candidate Starts for Wakanda_3:

(Start: 27 @1204 has 4 MA's), (33, 1237), (Start: 35 @1249 has 1 MA's), (41, 1288), (50, 1339), (73, 1444), (77, 1471), (78, 1474),

Gene: Wiggin_136 Start: 71276, Stop: 70947, Start Num: 31

Candidate Starts for Wiggin_136:

(Start: 22 @71294 has 15 MA's), (Start: 31 @71276 has 160 MA's), (33, 71255), (Start: 35 @71243 has 1 MA's), (36, 71240), (40, 71219), (41, 71204),

Gene: Wildcat_164 Start: 74139, Stop: 73819, Start Num: 31

Candidate Starts for Wildcat_164:

(Start: 31 @74139 has 160 MA's), (Start: 35 @74106 has 1 MA's), (50, 74016), (68, 73935), (69, 73932), (72, 73908), (84, 73830),

Gene: Willez_130 Start: 70373, Stop: 70044, Start Num: 31

Candidate Starts for Willez_130:

(Start: 22 @70391 has 15 MA's), (Start: 31 @70373 has 160 MA's), (33, 70352), (Start: 35 @70340 has 1 MA's), (36, 70337), (40, 70316), (41, 70301),

Gene: Xandras_134 Start: 71552, Stop: 71223, Start Num: 31

Candidate Starts for Xandras_134:

(Start: 22 @71570 has 15 MA's), (Start: 31 @71552 has 160 MA's), (33, 71531), (Start: 35 @71519 has 1 MA's), (36, 71516), (40, 71495), (41, 71480),

Gene: YassJohnny_129 Start: 69538, Stop: 69209, Start Num: 31

Candidate Starts for YassJohnny_129:

(3, 69694), (4, 69688), (5, 69682), (6, 69670), (8, 69637), (9, 69631), (11, 69616), (Start: 18 @69571 has 3 MA's), (Start: 31 @69538 has 160 MA's), (33, 69517), (Start: 35 @69505 has 1 MA's), (41, 69466), (46, 69436), (68, 69334), (69, 69331),

Gene: Yogi_66 Start: 43881, Stop: 43477, Start Num: 29

Candidate Starts for Yogi_66:

(Start: 13 @43953 has 22 MA's), (Start: 14 @43941 has 1 MA's), (Start: 29 @43881 has 14 MA's), (36, 43839), (52, 43752), (61, 43716), (66, 43689), (89, 43539), (92, 43497),

Gene: Yogi_60 Start: 41476, Stop: 41141, Start Num: 31

Candidate Starts for Yogi_60:

(Start: 31 @41476 has 160 MA's), (Start: 35 @41443 has 1 MA's), (37, 41437), (41, 41404), (46, 41374), (66, 41287), (87, 41146),

Gene: Yoncess_58 Start: 40879, Stop: 40544, Start Num: 31

Candidate Starts for Yoncess_58:

(Start: 31 @40879 has 160 MA's), (Start: 35 @40846 has 1 MA's), (37, 40840), (41, 40807), (46, 40777), (66, 40690), (87, 40549),

Gene: Yoncess_64 Start: 43289, Stop: 42885, Start Num: 29

Candidate Starts for Yoncess_64:

(Start: 13 @43361 has 22 MA's), (Start: 14 @43349 has 1 MA's), (Start: 29 @43289 has 14 MA's), (36, 43247), (52, 43160), (61, 43124), (66, 43097), (89, 42947), (92, 42905),

Gene: Youngblood_137 Start: 71689, Stop: 71360, Start Num: 31

Candidate Starts for Youngblood_137:

(3, 71845), (4, 71839), (5, 71833), (6, 71821), (8, 71788), (9, 71782), (11, 71767), (Start: 18 @71722 has 3 MA's), (Start: 31 @71689 has 160 MA's), (33, 71668), (Start: 35 @71656 has 1 MA's), (36, 71653), (40, 71632), (41, 71617),

Gene: xkcd_137 Start: 72326, Stop: 71997, Start Num: 31

Candidate Starts for xkcd_137:

(3, 72482), (4, 72476), (5, 72470), (6, 72458), (8, 72425), (9, 72419), (11, 72404), (Start: 18 @72359 has 3 MA's), (Start: 31 @72326 has 160 MA's), (33, 72305), (Start: 35 @72293 has 1 MA's), (36, 72290), (40, 72269), (41, 72254),