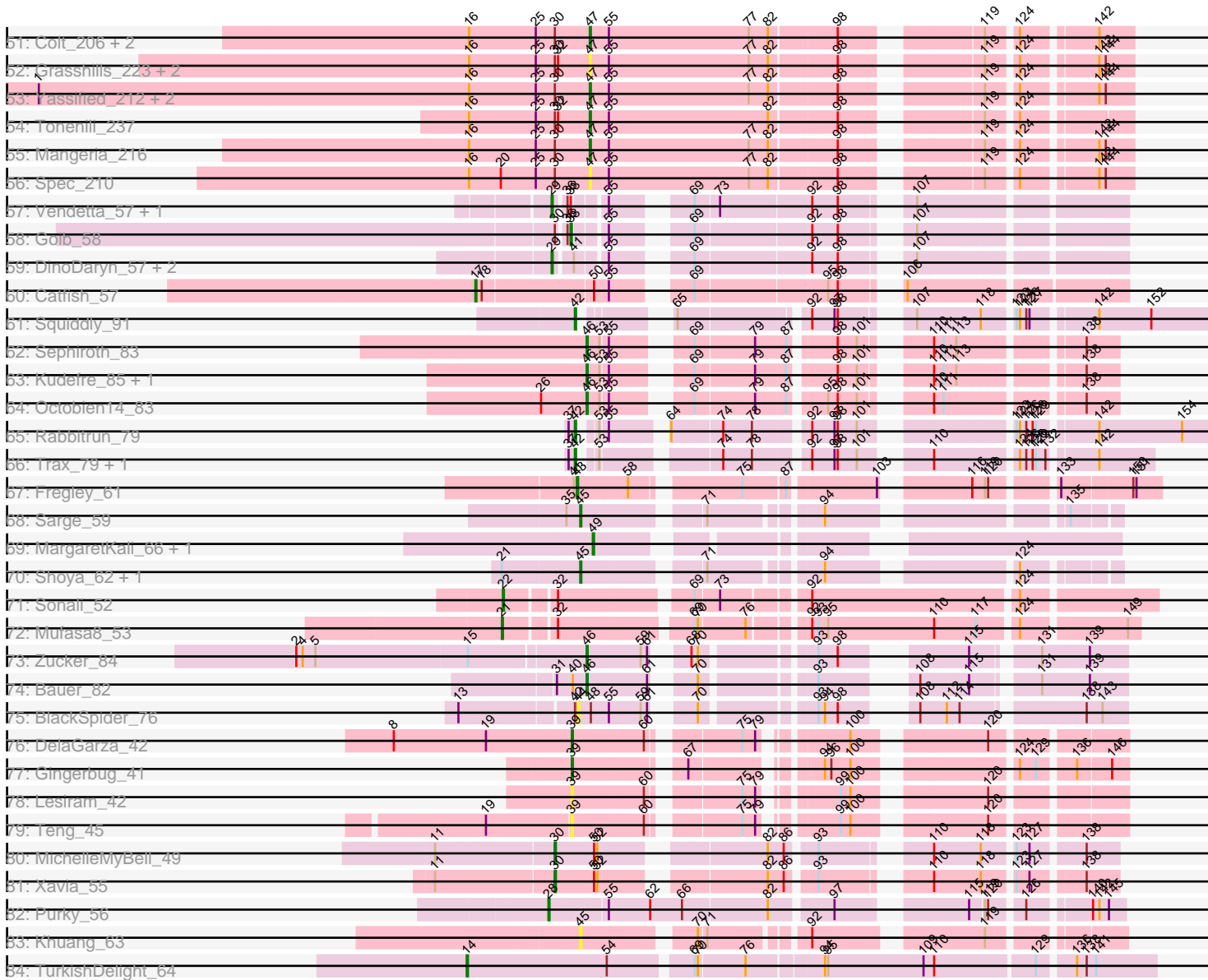


Pham 163304



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 163304 Report

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

Pham number 163304 has 274 members, 37 are drafts.

Phages represented in each track:

- Track 1 : Sejanus_66
- Track 2 : MalagasyRose_70
- Track 3 : Ruchi_41
- Track 4 : Jamun_42
- Track 5 : Chickaboom_48
- Track 6 : Galaxy_41
- Track 7 : Basilisk_42
- Track 8 : TaylorSipht_43
- Track 9 : Orcanus_43
- Track 10 : Eesa_42
- Track 11 : Brynnie_41
- Track 12 : Abidatro_44
- Track 13 : Vulpecula_41
- Track 14 : Cote_45, HannahPhantana_51, Amelia_43
- Track 15 : Coral_43, Melons_45, Polka_43
- Track 16 : Kepler_45
- Track 17 : Daob_45, Lunar_45
- Track 18 : Kuleana_45
- Track 19 : LittleTokyo_43
- Track 20 : Andrew_46
- Track 21 : RedFox_45
- Track 22 : Leona_44
- Track 23 : Juno112_45
- Track 24 : PhluffyCoco_45
- Track 25 : KHumphrey_44
- Track 26 : Renna12_44
- Track 27 : Sakai_82, Gorpy_83
- Track 28 : Hestia_80
- Track 29 : Auxilium_84
- Track 30 : Raqqa_86
- Track 31 : Hillester_90, RadFad_91
- Track 32 : Persistence_79
- Track 33 : BenchScraper_83, Richie_89
- Track 34 : Globfish_84
- Track 35 : Anekin_86, Aikyam_84
- Track 36 : BillyTP_85
- Track 37 : EvePickles_87

- Track 38 : Raphaella_84, MidnightRain_92
- Track 39 : Faja_87
- Track 40 : Isolde_87, YoungHarleezy_85
- Track 41 : Tiff81_86
- Track 42 : CookieBear_82
- Track 43 : AbbyDaisy_88
- Track 44 : Seahorse_92
- Track 45 : Phrank15_93
- Track 46 : Naija_216, Bangla1971_215, IkeLoa_207, Drazdys_213, ShiaLabeouf_212, RoMag_210, Loanshark_212, Khaleesi_214, SrishMeg2525_212, Essence_212, CindyLou_216, Delylah_217, ValleyTerrace_216, Astraea_209, Bipolarisk_213, Rizal_207, CharlieB_209, Jessibeth14_215, BadAgartude_209, Norm_215, ArcherS7_215, Shelob_216, Pivoine_216, DTDevon_217, Ewok_214, Naval22_220, Morizzled23_212, Patter_216, Gamgam_216, Issimir_211, Melpomini_210, JPickles_211, MoMoMixon_213, Breeniome_214, Erdmann_216, Dietrick_204, McWolfish_212, NedWong_214, Delilah_213, Kboogie_219, Roots515_217, Lukilu_206, Amataga_216, Maby2021_215, Momo_216, ZygoTaiga_212, Latch_215, Nidhogg_216, Jaygup_211, Ading_216, EmToTheThree_215, Burrough_217, Asterius_211, Gizmo_221, Phlegm_219, StephanieG_211, TinyTim_213, Phusco_213, Grungle_199, ET08_203, SmallFry_215, Capablanca_220, Shnickers_213, Bread_210, Shaqnato_206, Jedediah_215, Bonray_217, Atlantean_215, Littleton_218, Ngannou_212, Zeenon_217, Rahel_216, Napoleon13_212, Daffodil_220, YoungMoneyMata_214, ScottMcG_209, EmmaElysia_219, NoodleTree_221, McGee_214, DrPhinkDaddy_212, Iota_210, Halldule_208, Teardrop_212, Sprinklers_213, Chomp_214, MikeLiesIn_217, ParkTD_214, Ava3_214, YemiJoy2021_216, Tortoise16_213, Derek_212, Jemmno_214, StubbySaigey_220, DirtMonster_208, JustHall_209, FudgeTart_210, PurduePete_215, LifeSavor_214, Pleione_219, Izajani_213, Adlitam_214, Koguma_214, Wally_213, Zalkecks_214, Catera_207, Megamind_212, Shrimp_217, Lee7_215, Tyke_213, Mikro_211, Yucca_215, BananaFence_212, Caravan_206, Gabriel_218, Salacia_215, Kamryn_214, Janiyra_218, Darko_214, Matsumoto_214, Audrick_217, Willis_216, Babyland_218, InigoMontoya_218, Guwapp_210, FoxtrotP1_213, Spud_209, Ronan_211, SilverDipper_219
- Track 47 : Concombre_220, EasyJones_218, BeanWater_207, LolaVinca_213, Cali_208, Basquiat_212, ChickenPhender_211, Bigswole_220, LordLeafolot_217, Specks_219, FrayBell_218, Dandelion_223, Fludd_215, Cactojaque_210, Phox_216, ErnieJ_208, Trinitium_211, QBert_207, Chargie21_212, Blackbrain_212, LRRHood_208, Bx21_205, InterFolia_218, Turret_208, Quasimodo_217, Pio_223, Nappy_216
- Track 48 : I3_225
- Track 49 : Ghost_215
- Track 50 : NuevoMundo_218, ChaylaJr_213, Sebata_216, Shifa_192, Pinkcreek_199, Rabinovish_208, BackyardAgain_211, JayJay_213, Pier_216, HyRo_203, Alice_202, LinStu_214, Flabslab_210, Stubby_199
- Track 51 : Colt_206, Blubba_211, Cane17_206
- Track 52 : Grasshills_223, EggyFarm_224, BigCity_224
- Track 53 : Yassified_212, Sauce_211, JulietS_208
- Track 54 : Tonenili_237
- Track 55 : Mangeria_216
- Track 56 : Spec_210
- Track 57 : Vendetta_57, Splinter_57
- Track 58 : Goib_58

- Track 59 : DinoDaryn_57, TZGordon_58, Huffy_57
- Track 60 : Catfish_57
- Track 61 : Squiddly_91
- Track 62 : Sephiroth_83
- Track 63 : Kudrefre_85, Syleon_86
- Track 64 : Octobien14_83
- Track 65 : Rabbitrun_79
- Track 66 : Trax_79, Neville_76
- Track 67 : Fregley_61
- Track 68 : Sarge_59
- Track 69 : MargaretKali_66, Kumotta_70
- Track 70 : Shoya_62, BrayBeast_62
- Track 71 : Sonali_52
- Track 72 : Mufasa8_53
- Track 73 : Zucker_84
- Track 74 : Bauer_82
- Track 75 : BlackSpider_76
- Track 76 : DelaGarza_42
- Track 77 : Gingerbug_41
- Track 78 : Lesiram_42
- Track 79 : Teng_45
- Track 80 : MichelleMyBell_49
- Track 81 : Xavia_55
- Track 82 : Purky_56
- Track 83 : Khuang_63
- Track 84 : TurkishDelight_64

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

The start number called the most often in the published annotations is 47, it was called in 167 of the 237 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Ading_216, Adlitam_214, Alice_202, Amataga_216, ArcherS7_215, Asterius_211, Astraea_209, Atlantean_215, Audrick_217, Ava3_214, Babyland_218, BackyardAgain_211, BadAgartude_209, BananaFence_212, Bangla1971_215, Basquiat_212, BeanWater_207, BigCity_224, Bigswole_220, Bipolarisk_213, Blackbrain_212, Blubba_211, Bonray_217, Bread_210, Breeniome_214, Burrough_217, Bxz1_205, Cactojaque_210, Cali_208, Cane17_206, Capablanca_220, Caravan_206, Catera_207, Chargie21_212, CharlieB_209, ChaylaJr_213, ChickenPhender_211, Chomp_214, CindyLou_216, Colt_206, Concombre_220, DTDevon_217, Daffodil_220, Dandelion_223, Darko_214, Delilah_213, Delylah_217, Derek_212, Dietrick_204, DirtMonster_208, DrPhinkDaddy_212, Drazdys_213, ET08_203, EasyJones_218, EggyFarm_224, EmToTheThree_215, EmmaElysia_219, Erdmann_216, ErnieJ_208, Essence_212, Ewok_214, Flabslab_210, Fludd_215, FoxtrotP1_213, FrayBell_218, FudgeTart_210, Gabriel_218, Gamgam_216, Ghost_215, Gizmo_221, Grasshills_223, Grungle_199, Guwapp_210, Halldule_208, HyRo_203, I3_225, IkeLoa_207, InigoMontoya_218, InterFolia_218, Iota_210, Issimir_211, Izajani_213, JPickles_211, Janiyra_218, JayJay_213, Jaygup_211, Jediah_215, Jemmno_214, Jessibeth14_215,

JulietS_208, JustHall_209, Kamryn_214, Kboogie_219, Khaleesi_214, Koguma_214, LRRHood_208, Latch_215, Lee7_215, LifeSavor_214, LinStu_214, Littleton_218, Loanshark_212, LolaVinca_213, LordLeafolot_217, Lukilu_206, Maby2021_215, Mangeria_216, Matsumoto_214, McGee_214, McWolfish_212, Megamind_212, Melpomini_210, MikeLiesIn_217, Mikro_211, MoMoMixon_213, Momo_216, Morizzled23_212, Naija_216, Napoleon13_212, Nappy_216, Naval22_220, NedWong_214, Ngannou_212, Nidhogg_216, NoodleTree_221, Norm_215, NuevoMundo_218, ParkTD_214, Patter_216, Phlegm_219, Phox_216, Phusco_213, Pier_216, Pinkcreek_199, Pio_223, Pivoine_216, Pleione_219, PurduePete_215, QBert_207, Quasimodo_217, Rabinovich_208, Rahel_216, Rizal_207, RoMag_210, Ronan_211, Roots515_217, Salacia_215, Sauce_211, ScottMcG_209, Sebata_216, Shaqato_206, Shelob_216, ShiaLabeouf_212, Shifa_192, Shnickers_213, Shrimp_217, SilverDipper_219, SmallFry_215, Spec_210, Specks_219, Sprinklers_213, Spud_209, SrishMeg2525_212, StephanieG_211, StubbySaigey_220, Stubby_199, Teardrop_212, TinyTim_213, Tonenili_237, Tortoise16_213, Trinitium_211, Turret_208, Tyke_213, ValleyTerrace_216, Wally_213, Willis_216, Yassified_212, YemiJoy2021_216, YoungMoneyMata_214, Yucca_215, Zalkecks_214, Zeenon_217, ZygoTaiga_212,

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

-

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

- AbbyDaisy_88, Abidatro_44, Aikyam_84, Amelia_43, Andrew_46, Anekin_86, Auxilium_84, Basilisk_42, Bauer_82, BenchScraper_83, BillyTP_85, BlackSpider_76, BrayBeast_62, Brynnie_41, Catfish_57, Chickaboom_48, CookieBear_82, Coral_43, Cote_45, Daob_45, DelaGarza_42, DinoDaryn_57, Eesa_42, EvePickles_87, Faja_87, Fregley_61, Galaxy_41, Gingerbug_41, Globfish_84, Goib_58, Gorpy_83, HannahPhantana_51, Hestia_80, Hillester_90, Huff_57, Isolde_87, Jamun_42, Juno112_45, KHumphrey_44, Kepler_45, Khuang_63, Kudefre_85, Kuleana_45, Kumotta_70, Leona_44, Lesiram_42, LittleTokyo_43, Lunar_45, MalagasyRose_70, MargaretKali_66, Melons_45, MichelleMyBell_49, MidnightRain_92, Mufasa8_53, Neville_76, Octobien14_83, Orcanus_43, Persistence_79, PhluffyCoco_45, Phrank15_93, Polka_43, Purky_56, Rabbitrun_79, RadFad_91, Raphaella_84, Raqqa_86, RedFox_45, Renna12_44, Richie_89, Ruchi_41, Sakai_82, Sarge_59, Seahorse_92, Sejanus_66, Sephiroth_83, Shoya_62, Sonali_52, Splinter_57, Squiddly_91, Syleon_86, TZGordon_58, TaylorSipht_43, Teng_45, Tiff81_86, Trax_79, TurkishDelight_64, Vendetta_57, Vulpecula_41, Xavia_55, YoungHarleezy_85, Zucker_84,

Summary by start number:

Start 10:

- Found in 1 of 274 (0.4%) of genes in pham
- Manual Annotations of this start: 1 of 237
- Called 100.0% of time when present
- Phage (with cluster) where this start called: MalagasyRose_70 (AG),

Start 14:

- Found in 1 of 274 (0.4%) of genes in pham
- Manual Annotations of this start: 1 of 237
- Called 100.0% of time when present
- Phage (with cluster) where this start called: TurkishDelight_64 (singleton),

Start 17:

- Found in 1 of 274 (0.4%) of genes in pham
- Manual Annotations of this start: 1 of 237
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Catfish_57 (CU5),

Start 21:

- Found in 3 of 274 (1.1%) of genes in pham
- Manual Annotations of this start: 1 of 237
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Mufasa8_53 (FG),

Start 22:

- Found in 1 of 274 (0.4%) of genes in pham
- Manual Annotations of this start: 1 of 237
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Sonali_52 (FG),

Start 28:

- Found in 2 of 274 (0.7%) of genes in pham
- Manual Annotations of this start: 2 of 237
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Purky_56 (P6), Sejanus_66 (AD),

Start 29:

- Found in 5 of 274 (1.8%) of genes in pham
- Manual Annotations of this start: 5 of 237
- Called 100.0% of time when present
- Phage (with cluster) where this start called: DinoDaryn_57 (CU1), Huffy_57 (CU1), Splinter_57 (CU1), TZGordon_58 (CU1), Vendetta_57 (CU1),

Start 30:

- Found in 187 of 274 (68.2%) of genes in pham
- Manual Annotations of this start: 2 of 237
- Called 1.1% of time when present
- Phage (with cluster) where this start called: MichelleMyBell_49 (N), Xavia_55 (P3),

Start 38:

- Found in 3 of 274 (1.1%) of genes in pham
- Manual Annotations of this start: 1 of 237
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Goib_58 (CU1),

Start 39:

- Found in 4 of 274 (1.5%) of genes in pham
- Manual Annotations of this start: 2 of 237
- Called 100.0% of time when present
- Phage (with cluster) where this start called: DelaGarza_42 (GF), Gingerbug_41 (GF), Lesiram_42 (GF), Teng_45 (GF),

Start 42:

- Found in 5 of 274 (1.8%) of genes in pham

- Manual Annotations of this start: 4 of 237
- Called 80.0% of time when present
- Phage (with cluster) where this start called: Neville_76 (DU2), Rabbitrun_79 (DU2), Squiddly_91 (DN2), Trax_79 (DU2),

Start 43:

- Found in 2 of 274 (0.7%) of genes in pham
- Manual Annotations of this start: 1 of 237
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Fregley_61 (EG),

Start 44:

- Found in 22 of 274 (8.0%) of genes in pham
- Manual Annotations of this start: 11 of 237
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Aikyam_84 (AY), Anekin_86 (AY), Auxilium_84 (AY), BenchScraper_83 (AY), BillyTP_85 (AY), BlackSpider_76 (FN), CookieBear_82 (AY), EvePickles_87 (AY), Faja_87 (AY), Gorpy_83 (AY), Hestia_80 (AY), Hillester_90 (AY), Isolde_87 (AY), MidnightRain_92 (AY), Phrank15_93 (AY), RadFad_91 (AY), Raphaella_84 (AY), Richie_89 (AY), Sakai_82 (AY), Seahorse_92 (AY), Tiff81_86 (AY), YoungHarleezy_85 (AY),

Start 45:

- Found in 34 of 274 (12.4%) of genes in pham
- Manual Annotations of this start: 28 of 237
- Called 91.2% of time when present
- Phage (with cluster) where this start called: Abidatro_44 (AS1), Amelia_43 (AS2), Andrew_46 (AS3), Basilisk_42 (AS1), BrayBeast_62 (FB), Brynnie_41 (AS1), Coral_43 (AS2), Cote_45 (AS2), Daob_45 (AS2), Eesa_42 (AS1), Galaxy_41 (AS1), HannahPhantana_51 (AS2), Jamun_42 (AS1), Juno112_45 (AS3), Kepler_45 (AS2), Khuang_63 (UNK), Kuleana_45 (AS2), Leona_44 (AS3), LittleTokyo_43 (AS2), Lunar_45 (AS2), Melons_45 (AS2), Orcanus_43 (AS1), Persistence_79 (AY), Polka_43 (AS2), RedFox_45 (AS3), Renna12_44 (AS3), Ruchi_41 (AS1), Sarge_59 (FB), Shoya_62 (FB), TaylorSipt_43 (AS1), Vulpecula_41 (AS1),

Start 46:

- Found in 8 of 274 (2.9%) of genes in pham
- Manual Annotations of this start: 7 of 237
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AbbyDaisy_88 (AY), Bauer_82 (FN), Kudrefre_85 (DU1), Octobien14_83 (DU1), Raqqa_86 (AY), Sephiroth_83 (DU1), Syleon_86 (DU1), Zucker_84 (FN),

Start 47:

- Found in 183 of 274 (66.8%) of genes in pham
- Manual Annotations of this start: 167 of 237
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Ading_216 (C1), Adlitam_214 (C1), Alice_202 (C1), Amataga_216 (C1), ArcherS7_215 (C1), Asterius_211 (C1), Astraea_209 (C1), Atlantean_215 (C1), Audrick_217 (C1), Ava3_214 (C1), Babyland_218 (C1), BackyardAgain_211 (C1), BadAgartude_209 (C1), BananaFence_212 (C1), Bangla1971_215 (C1), Basquiat_212 (C1), BeanWater_207 (C1), BigCity_224 (C1), Bigswole_220 (C1), Bipolarisk_213 (C1), Blackbrain_212

(C1), Blubba_211 (C1), Bonray_217 (C1), Bread_210 (C1), Breeniome_214 (C1), Burrough_217 (C1), Bxz1_205 (C1), Cactojaque_210 (C1), Cali_208 (C1), Cane17_206 (C1), Capablanca_220 (C1), Caravan_206 (C1), Catera_207 (C1), Chargie21_212 (C1), CharlieB_209 (C1), ChaylaJr_213 (C1), ChickenPhender_211 (C1), Chomp_214 (C1), CindyLou_216 (C1), Colt_206 (C1), Concombres_220 (C1), DTDevon_217 (C1), Daffodil_220 (C1), Dandelion_223 (C1), Darko_214 (C1), Delilah_213 (C1), Delylah_217 (C1), Derek_212 (C1), Dietrick_204 (C1), DirtMonster_208 (C1), DrPhinkDaddy_212 (C1), Drazdys_213 (C1), ET08_203 (C1), EasyJones_218 (C1), EggyFarm_224 (C1), EmToTheThree_215 (C1), EmmaElysia_219 (C1), Erdmann_216 (C1), ErnieJ_208 (C1), Essence_212 (C1), Ewok_214 (C1), Flabslab_210 (C1), Fludd_215 (C1), FoxtrotP1_213 (C1), FrayBell_218 (C1), FudgeTart_210 (C1), Gabriel_218 (C1), Gamgam_216 (C1), Ghost_215 (C1), Gizmo_221 (C1), Grasshills_223 (C1), Grungle_199 (C1), Guwapp_210 (C1), Halldule_208 (C1), HyRo_203 (C1), I3_225 (C1), IkeLoa_207 (C1), InigoMontoya_218 (C1), InterFolia_218 (C1), Iota_210 (C1), Issimir_211 (C1), Izajani_213 (C1), JPickles_211 (C1), Janiyra_218 (C1), JayJay_213 (C1), Jaygup_211 (C1), Jedediah_215 (C1), Jemmno_214 (C1), Jessibeth14_215 (C1), JulietS_208 (C1), JustHall_209 (C1), Kamryn_214 (C1), Kboogie_219 (C1), Khaleesi_214 (C1), Koguma_214 (C1), LRRHood_208 (C1), Latch_215 (C1), Lee7_215 (C1), LifeSavor_214 (C1), LinStu_214 (C1), Littleton_218 (C1), Loanshark_212 (C1), LolaVinca_213 (C1), LordLeafolot_217 (C1), Lukilu_206 (C1), Maby2021_215 (C1), Mangeria_216 (C1), Matsumoto_214 (C1), McGee_214 (C1), McWolfish_212 (C1), Megamind_212 (C1), Melpomini_210 (C1), MikeLiesIn_217 (C1), Mikro_211 (C1), MoMoMixon_213 (C1), Momo_216 (C1), Morizzled23_212 (C1), Naija_216 (C1), Napoleon13_212 (C1), Nappy_216 (C1), Naval22_220 (C1), NedWong_214 (C1), Ngannou_212 (C1), Nidhogg_216 (C1), NoodleTree_221 (C1), Norm_215 (C1), NuevoMundo_218 (C1), ParkTD_214 (C1), Patter_216 (C1), Phlegm_219 (C1), Phox_216 (C1), Phusco_213 (C1), Pier_216 (C1), Pinkcreek_199 (C1), Pio_223 (C1), Pivoine_216 (C1), Pleione_219 (C1), PurduePete_215 (C1), QBert_207 (C1), Quasimodo_217 (C1), Rabinovish_208 (C1), Rahel_216 (C1), Rizal_207 (C1), RoMag_210 (C1), Ronan_211 (C1), Roots515_217 (C1), Salacia_215 (C1), Sauce_211 (C1), ScottMcG_209 (C1), Sebata_216 (C1), Shaqato_206 (C1), Shelob_216 (C1), ShiaLabeouf_212 (C1), Shifa_192 (C1), Shnickers_213 (C1), Shrimp_217 (C1), SilverDipper_219 (C1), SmallFry_215 (C1), Spec_210 (C1), Specks_219 (C1), Sprinklers_213 (C1), Spud_209 (C1), SrishMeg2525_212 (C1), StephanieG_211 (C1), StubbySaigey_220 (C1), Stubby_199 (C1), Teardrop_212 (C1), TinyTim_213 (C1), Tonenili_237 (C1), Tortoise16_213 (C1), Trinitium_211 (C1), Turret_208 (C1), Tyke_213 (C1), ValleyTerrace_216 (C1), Wally_213 (C1), Willis_216 (C1), Yassified_212 (C1), YemiJoy2021_216 (C1), YoungMoneyMata_214 (C1), Yucca_215 (C1), Zalkecks_214 (C1), Zeenon_217 (C1), ZygoTaiga_212 (C1),

Start 48:

- Found in 23 of 274 (8.4%) of genes in pham
- No Manual Annotations of this start.
- Called 4.3% of time when present
- Phage (with cluster) where this start called: Globfish_84 (AY),

Start 49:

- Found in 3 of 274 (1.1%) of genes in pham
- Manual Annotations of this start: 2 of 237
- Called 66.7% of time when present
- Phage (with cluster) where this start called: Kumotta_70 (FB), MargaretKali_66 (FB),

Start 56:

- Found in 28 of 274 (10.2%) of genes in pham
- No Manual Annotations of this start.
- Called 7.1% of time when present
- Phage (with cluster) where this start called: KHumphrey_44 (AS3), PhluffyCoco_45 (AS3),

Start 57:

- Found in 8 of 274 (2.9%) of genes in pham
- No Manual Annotations of this start.
- Called 12.5% of time when present
- Phage (with cluster) where this start called: Chickaboom_48 (AS1),

Summary by clusters:

There are 22 clusters represented in this pham: singleton, AS2, FB, FG, FN, CU5, CU1, DN2, DU1, C1, AS3, P3, AS1, P6, AD, AG, EG, N, GF, AY, UNK, DU2,

Info for manual annotations of cluster AD:

- Start number 28 was manually annotated 1 time for cluster AD.

Info for manual annotations of cluster AG:

- Start number 10 was manually annotated 1 time for cluster AG.

Info for manual annotations of cluster AS1:

- Start number 45 was manually annotated 10 times for cluster AS1.

Info for manual annotations of cluster AS2:

- Start number 45 was manually annotated 10 times for cluster AS2.

Info for manual annotations of cluster AS3:

- Start number 45 was manually annotated 4 times for cluster AS3.

Info for manual annotations of cluster AY:

- Start number 44 was manually annotated 11 times for cluster AY.
- Start number 45 was manually annotated 1 time for cluster AY.
- Start number 46 was manually annotated 1 time for cluster AY.

Info for manual annotations of cluster C1:

- Start number 47 was manually annotated 167 times for cluster C1.

Info for manual annotations of cluster CU1:

- Start number 29 was manually annotated 5 times for cluster CU1.
- Start number 38 was manually annotated 1 time for cluster CU1.

Info for manual annotations of cluster CU5:

- Start number 17 was manually annotated 1 time for cluster CU5.

Info for manual annotations of cluster DN2:

- Start number 42 was manually annotated 1 time for cluster DN2.

Info for manual annotations of cluster DU1:

- Start number 46 was manually annotated 4 times for cluster DU1.

Info for manual annotations of cluster DU2:

- Start number 42 was manually annotated 3 times for cluster DU2.

Info for manual annotations of cluster EG:

- Start number 43 was manually annotated 1 time for cluster EG.

Info for manual annotations of cluster FB:

- Start number 45 was manually annotated 3 times for cluster FB.
- Start number 49 was manually annotated 2 times for cluster FB.

Info for manual annotations of cluster FG:

- Start number 21 was manually annotated 1 time for cluster FG.
- Start number 22 was manually annotated 1 time for cluster FG.

Info for manual annotations of cluster FN:

- Start number 46 was manually annotated 2 times for cluster FN.

Info for manual annotations of cluster GF:

- Start number 39 was manually annotated 2 times for cluster GF.

Info for manual annotations of cluster N:

- Start number 30 was manually annotated 1 time for cluster N.

Info for manual annotations of cluster P3:

- Start number 30 was manually annotated 1 time for cluster P3.

Info for manual annotations of cluster P6:

- Start number 28 was manually annotated 1 time for cluster P6.

Gene Information:

Gene: AbbyDaisy_88 Start: 50419, Stop: 50823, Start Num: 46

Candidate Starts for AbbyDaisy_88:

(40, 50407), (Start: 46 @50419 has 7 MA's), (61, 50476), (70, 50500), (93, 50590), (94, 50596), (115, 50692), (131, 50743), (139, 50788),

Gene: Abidatro_44 Start: 29002, Stop: 29472, Start Num: 45

Candidate Starts for Abidatro_44:

(Start: 45 @29002 has 28 MA's), (56, 29038), (57, 29044), (68, 29095), (75, 29140), (93, 29200), (98, 29218), (102, 29254), (119, 29353), (130, 29395), (140, 29434), (142, 29440), (148, 29461),

Gene: Ading_216 Start: 121132, Stop: 121587, Start Num: 47

Candidate Starts for Ading_216:

(16, 121018), (25, 121081), (Start: 30 @121099 has 2 MA's), (Start: 47 @121132 has 167 MA's), (55, 121150), (77, 121282), (82, 121300), (98, 121360), (119, 121468), (124, 121492), (142, 121555), (144, 121561),

Gene: Adlitam_214 Start: 119736, Stop: 120191, Start Num: 47

Candidate Starts for Adlitam_214:

(16, 119622), (25, 119685), (Start: 30 @119703 has 2 MA's), (Start: 47 @119736 has 167 MA's), (55, 119754), (77, 119886), (82, 119904), (98, 119964), (119, 120072), (124, 120096), (142, 120159), (144, 120165),

Gene: Aikyam_84 Start: 46399, Stop: 46830, Start Num: 44

Candidate Starts for Aikyam_84:

(13, 46294), (Start: 44 @46399 has 11 MA's), (48, 46411), (55, 46426), (59, 46456), (61, 46462), (70, 46486), (139, 46789),

Gene: Alice_202 Start: 118711, Stop: 119166, Start Num: 47

Candidate Starts for Alice_202:

(16, 118597), (25, 118660), (Start: 30 @118678 has 2 MA's), (Start: 47 @118711 has 167 MA's), (55, 118729), (77, 118861), (82, 118879), (98, 118939), (119, 119047), (124, 119071), (142, 119134), (144, 119140),

Gene: Amataga_216 Start: 119548, Stop: 120003, Start Num: 47

Candidate Starts for Amataga_216:

(16, 119434), (25, 119497), (Start: 30 @119515 has 2 MA's), (Start: 47 @119548 has 167 MA's), (55, 119566), (77, 119698), (82, 119716), (98, 119776), (119, 119884), (124, 119908), (142, 119971), (144, 119977),

Gene: Amelia_43 Start: 27285, Stop: 27752, Start Num: 45

Candidate Starts for Amelia_43:

(24, 27228), (Start: 45 @27285 has 28 MA's), (56, 27321), (69, 27381), (78, 27432), (83, 27447), (93, 27483), (106, 27561), (108, 27573), (119, 27633), (124, 27657), (138, 27708), (140, 27714), (147, 27735), (148, 27741),

Gene: Andrew_46 Start: 28224, Stop: 28688, Start Num: 45

Candidate Starts for Andrew_46:

(Start: 45 @28224 has 28 MA's), (69, 28320), (75, 28365), (93, 28425), (110, 28524), (113, 28545), (119, 28572), (138, 28647), (141, 28656), (145, 28668),

Gene: Anekin_86 Start: 48622, Stop: 49053, Start Num: 44

Candidate Starts for Anekin_86:

(13, 48517), (Start: 44 @48622 has 11 MA's), (48, 48634), (55, 48649), (59, 48679), (61, 48685), (70, 48709), (139, 49012),

Gene: ArcherS7_215 Start: 120590, Stop: 121045, Start Num: 47

Candidate Starts for ArcherS7_215:

(16, 120476), (25, 120539), (Start: 30 @120557 has 2 MA's), (Start: 47 @120590 has 167 MA's), (55, 120608), (77, 120740), (82, 120758), (98, 120818), (119, 120926), (124, 120950), (142, 121013), (144, 121019),

Gene: Asterius_211 Start: 119957, Stop: 120412, Start Num: 47

Candidate Starts for Asterius_211:

(16, 119843), (25, 119906), (Start: 30 @119924 has 2 MA's), (Start: 47 @119957 has 167 MA's), (55, 119975), (77, 120107), (82, 120125), (98, 120185), (119, 120293), (124, 120317), (142, 120380), (144, 120386),

Gene: Astraea_209 Start: 119152, Stop: 119607, Start Num: 47

Candidate Starts for Astraea_209:

(16, 119038), (25, 119101), (Start: 30 @119119 has 2 MA's), (Start: 47 @119152 has 167 MA's), (55, 119170), (77, 119302), (82, 119320), (98, 119380), (119, 119488), (124, 119512), (142, 119575), (144, 119581),

Gene: Atlantean_215 Start: 119548, Stop: 120003, Start Num: 47

Candidate Starts for Atlantean_215:

(16, 119434), (25, 119497), (Start: 30 @119515 has 2 MA's), (Start: 47 @119548 has 167 MA's), (55, 119566), (77, 119698), (82, 119716), (98, 119776), (119, 119884), (124, 119908), (142, 119971), (144, 119977),

Gene: Audrick_217 Start: 119438, Stop: 119893, Start Num: 47

Candidate Starts for Audrick_217:

(16, 119324), (25, 119387), (Start: 30 @119405 has 2 MA's), (Start: 47 @119438 has 167 MA's), (55, 119456), (77, 119588), (82, 119606), (98, 119666), (119, 119774), (124, 119798), (142, 119861), (144, 119867),

Gene: Auxilium_84 Start: 46039, Stop: 46461, Start Num: 44

Candidate Starts for Auxilium_84:

(Start: 44 @46039 has 11 MA's), (48, 46048), (55, 46063), (59, 46093), (61, 46099), (70, 46123), (139, 46426),

Gene: Ava3_214 Start: 119982, Stop: 120437, Start Num: 47

Candidate Starts for Ava3_214:

(16, 119868), (25, 119931), (Start: 30 @119949 has 2 MA's), (Start: 47 @119982 has 167 MA's), (55, 120000), (77, 120132), (82, 120150), (98, 120210), (119, 120318), (124, 120342), (142, 120405), (144, 120411),

Gene: Babyland_218 Start: 120325, Stop: 120780, Start Num: 47

Candidate Starts for Babyland_218:

(16, 120211), (25, 120274), (Start: 30 @120292 has 2 MA's), (Start: 47 @120325 has 167 MA's), (55, 120343), (77, 120475), (82, 120493), (98, 120553), (119, 120661), (124, 120685), (142, 120748), (144, 120754),

Gene: BackyardAgain_211 Start: 117513, Stop: 117968, Start Num: 47

Candidate Starts for BackyardAgain_211:

(16, 117399), (25, 117462), (Start: 30 @117480 has 2 MA's), (Start: 47 @117513 has 167 MA's), (55, 117531), (77, 117663), (82, 117681), (98, 117741), (119, 117849), (124, 117873), (142, 117936), (144, 117942),

Gene: BadAgartude_209 Start: 119650, Stop: 120105, Start Num: 47

Candidate Starts for BadAgartude_209:

(16, 119536), (25, 119599), (Start: 30 @119617 has 2 MA's), (Start: 47 @119650 has 167 MA's), (55, 119668), (77, 119800), (82, 119818), (98, 119878), (119, 119986), (124, 120010), (142, 120073), (144, 120079),

Gene: BananaFence_212 Start: 119781, Stop: 120236, Start Num: 47

Candidate Starts for BananaFence_212:

(16, 119667), (25, 119730), (Start: 30 @119748 has 2 MA's), (Start: 47 @119781 has 167 MA's), (55, 119799), (77, 119931), (82, 119949), (98, 120009), (119, 120117), (124, 120141), (142, 120204), (144, 120210),

Gene: Bangla1971_215 Start: 119554, Stop: 120009, Start Num: 47

Candidate Starts for Bangla1971_215:

(16, 119440), (25, 119503), (Start: 30 @119521 has 2 MA's), (Start: 47 @119554 has 167 MA's), (55, 119572), (77, 119704), (82, 119722), (98, 119782), (119, 119890), (124, 119914), (142, 119977), (144, 119983),

Gene: Basilisk_42 Start: 28172, Stop: 28642, Start Num: 45

Candidate Starts for Basilisk_42:

(Start: 45 @28172 has 28 MA's), (56, 28208), (57, 28214), (69, 28268), (75, 28310), (81, 28331), (88, 28349), (93, 28370), (98, 28388), (102, 28424), (119, 28523), (124, 28547), (130, 28565), (142, 28610), (148, 28631),

Gene: Basquiat_212 Start: 118067, Stop: 118522, Start Num: 47

Candidate Starts for Basquiat_212:

(16, 117953), (25, 118016), (Start: 30 @118034 has 2 MA's), (Start: 47 @118067 has 167 MA's), (55, 118085), (77, 118217), (82, 118235), (98, 118295), (119, 118403), (124, 118427), (142, 118490), (144, 118496),

Gene: Bauer_82 Start: 45126, Stop: 45530, Start Num: 46

Candidate Starts for Bauer_82:

(31, 45099), (40, 45114), (Start: 46 @45126 has 7 MA's), (61, 45183), (70, 45207), (93, 45297), (108, 45354), (115, 45399), (131, 45450), (139, 45495),

Gene: BeanWater_207 Start: 118593, Stop: 119048, Start Num: 47

Candidate Starts for BeanWater_207:

(16, 118479), (25, 118542), (Start: 30 @118560 has 2 MA's), (Start: 47 @118593 has 167 MA's), (55, 118611), (77, 118743), (82, 118761), (98, 118821), (119, 118929), (124, 118953), (142, 119016), (144, 119022),

Gene: BenchScraper_83 Start: 46987, Stop: 47412, Start Num: 44

Candidate Starts for BenchScraper_83:

(27, 46957), (Start: 44 @46987 has 11 MA's), (48, 46999), (55, 47014), (59, 47044), (61, 47050), (70, 47074), (93, 47164), (139, 47377),

Gene: BigCity_224 Start: 122164, Stop: 122619, Start Num: 47

Candidate Starts for BigCity_224:

(16, 122050), (25, 122113), (Start: 30 @122131 has 2 MA's), (32, 122134), (Start: 47 @122164 has 167 MA's), (55, 122182), (77, 122314), (82, 122332), (98, 122392), (119, 122500), (124, 122524), (142, 122587), (144, 122593),

Gene: Bigswole_220 Start: 122018, Stop: 122473, Start Num: 47

Candidate Starts for Bigswole_220:

(16, 121904), (25, 121967), (Start: 30 @121985 has 2 MA's), (Start: 47 @122018 has 167 MA's), (55, 122036), (77, 122168), (82, 122186), (98, 122246), (119, 122354), (124, 122378), (142, 122441), (144, 122447),

Gene: BillyTP_85 Start: 49093, Stop: 49518, Start Num: 44

Candidate Starts for BillyTP_85:

(27, 49063), (Start: 44 @49093 has 11 MA's), (48, 49105), (55, 49120), (59, 49150), (61, 49156), (70, 49180), (93, 49270), (115, 49372), (139, 49483),

Gene: Bipolarisk_213 Start: 120251, Stop: 120706, Start Num: 47

Candidate Starts for Bipolarisk_213:

(16, 120137), (25, 120200), (Start: 30 @120218 has 2 MA's), (Start: 47 @120251 has 167 MA's), (55, 120269), (77, 120401), (82, 120419), (98, 120479), (119, 120587), (124, 120611), (142, 120674), (144,

120680),

Gene: BlackSpider_76 Start: 45516, Stop: 45926, Start Num: 44

Candidate Starts for BlackSpider_76:

(13, 45411), (Start: 42 @45513 has 4 MA's), (Start: 44 @45516 has 11 MA's), (48, 45528), (55, 45543), (59, 45573), (61, 45579), (70, 45603), (93, 45693), (94, 45699), (98, 45711), (108, 45750), (112, 45774), (114, 45786), (138, 45888), (143, 45903),

Gene: Blackbrain_212 Start: 119152, Stop: 119607, Start Num: 47

Candidate Starts for Blackbrain_212:

(16, 119038), (25, 119101), (Start: 30 @119119 has 2 MA's), (Start: 47 @119152 has 167 MA's), (55, 119170), (77, 119302), (82, 119320), (98, 119380), (119, 119488), (124, 119512), (142, 119575), (144, 119581),

Gene: Blubba_211 Start: 123233, Stop: 123688, Start Num: 47

Candidate Starts for Blubba_211:

(16, 123119), (25, 123182), (Start: 30 @123200 has 2 MA's), (Start: 47 @123233 has 167 MA's), (55, 123251), (77, 123383), (82, 123401), (98, 123461), (119, 123569), (124, 123593), (142, 123656),

Gene: Bonray_217 Start: 121653, Stop: 122108, Start Num: 47

Candidate Starts for Bonray_217:

(16, 121539), (25, 121602), (Start: 30 @121620 has 2 MA's), (Start: 47 @121653 has 167 MA's), (55, 121671), (77, 121803), (82, 121821), (98, 121881), (119, 121989), (124, 122013), (142, 122076), (144, 122082),

Gene: BrayBeast_62 Start: 35523, Stop: 35936, Start Num: 45

Candidate Starts for BrayBeast_62:

(Start: 21 @35457 has 1 MA's), (Start: 45 @35523 has 28 MA's), (71, 35619), (94, 35709), (124, 35859),

Gene: Bread_210 Start: 119651, Stop: 120106, Start Num: 47

Candidate Starts for Bread_210:

(16, 119537), (25, 119600), (Start: 30 @119618 has 2 MA's), (Start: 47 @119651 has 167 MA's), (55, 119669), (77, 119801), (82, 119819), (98, 119879), (119, 119987), (124, 120011), (142, 120074), (144, 120080),

Gene: Breeniome_214 Start: 119105, Stop: 119560, Start Num: 47

Candidate Starts for Breeniome_214:

(16, 118991), (25, 119054), (Start: 30 @119072 has 2 MA's), (Start: 47 @119105 has 167 MA's), (55, 119123), (77, 119255), (82, 119273), (98, 119333), (119, 119441), (124, 119465), (142, 119528), (144, 119534),

Gene: Brynnie_41 Start: 28050, Stop: 28520, Start Num: 45

Candidate Starts for Brynnie_41:

(Start: 45 @28050 has 28 MA's), (56, 28086), (57, 28092), (69, 28146), (75, 28188), (88, 28227), (93, 28248), (98, 28266), (102, 28302), (119, 28401), (124, 28425), (130, 28443), (142, 28488), (148, 28509),

Gene: Burrough_217 Start: 121421, Stop: 121876, Start Num: 47

Candidate Starts for Burrough_217:

(16, 121307), (25, 121370), (Start: 30 @121388 has 2 MA's), (Start: 47 @121421 has 167 MA's), (55, 121439), (77, 121571), (82, 121589), (98, 121649), (119, 121757), (124, 121781), (142, 121844), (144, 121850),

Gene: Bxz1_205 Start: 121627, Stop: 122082, Start Num: 47

Candidate Starts for Bxz1_205:

(16, 121513), (25, 121576), (Start: 30 @121594 has 2 MA's), (Start: 47 @121627 has 167 MA's), (55, 121645), (77, 121777), (82, 121795), (98, 121855), (119, 121963), (124, 121987), (142, 122050), (144, 122056),

Gene: Cactojaque_210 Start: 118087, Stop: 118542, Start Num: 47

Candidate Starts for Cactojaque_210:

(16, 117973), (25, 118036), (Start: 30 @118054 has 2 MA's), (Start: 47 @118087 has 167 MA's), (55, 118105), (77, 118237), (82, 118255), (98, 118315), (119, 118423), (124, 118447), (142, 118510), (144, 118516),

Gene: Cali_208 Start: 120034, Stop: 120489, Start Num: 47

Candidate Starts for Cali_208:

(16, 119920), (25, 119983), (Start: 30 @120001 has 2 MA's), (Start: 47 @120034 has 167 MA's), (55, 120052), (77, 120184), (82, 120202), (98, 120262), (119, 120370), (124, 120394), (142, 120457), (144, 120463),

Gene: Cane17_206 Start: 123642, Stop: 124097, Start Num: 47

Candidate Starts for Cane17_206:

(16, 123528), (25, 123591), (Start: 30 @123609 has 2 MA's), (Start: 47 @123642 has 167 MA's), (55, 123660), (77, 123792), (82, 123810), (98, 123870), (119, 123978), (124, 124002), (142, 124065),

Gene: Capablanca_220 Start: 122248, Stop: 122703, Start Num: 47

Candidate Starts for Capablanca_220:

(16, 122134), (25, 122197), (Start: 30 @122215 has 2 MA's), (Start: 47 @122248 has 167 MA's), (55, 122266), (77, 122398), (82, 122416), (98, 122476), (119, 122584), (124, 122608), (142, 122671), (144, 122677),

Gene: Caravan_206 Start: 120368, Stop: 120823, Start Num: 47

Candidate Starts for Caravan_206:

(16, 120254), (25, 120317), (Start: 30 @120335 has 2 MA's), (Start: 47 @120368 has 167 MA's), (55, 120386), (77, 120518), (82, 120536), (98, 120596), (119, 120704), (124, 120728), (142, 120791), (144, 120797),

Gene: Catera_207 Start: 118761, Stop: 119216, Start Num: 47

Candidate Starts for Catera_207:

(16, 118647), (25, 118710), (Start: 30 @118728 has 2 MA's), (Start: 47 @118761 has 167 MA's), (55, 118779), (77, 118911), (82, 118929), (98, 118989), (119, 119097), (124, 119121), (142, 119184), (144, 119190),

Gene: Catfish_57 Start: 38946, Stop: 39467, Start Num: 17

Candidate Starts for Catfish_57:

(Start: 17 @38946 has 1 MA's), (18, 38952), (50, 39051), (55, 39063), (69, 39117), (95, 39234), (98, 39243), (106, 39279),

Gene: Chargie21_212 Start: 118067, Stop: 118522, Start Num: 47

Candidate Starts for Chargie21_212:

(16, 117953), (25, 118016), (Start: 30 @118034 has 2 MA's), (Start: 47 @118067 has 167 MA's), (55, 118085), (77, 118217), (82, 118235), (98, 118295), (119, 118403), (124, 118427), (142, 118490), (144, 118496),

Gene: CharlieB_209 Start: 119788, Stop: 120243, Start Num: 47

Candidate Starts for CharlieB_209:

(16, 119674), (25, 119737), (Start: 30 @119755 has 2 MA's), (Start: 47 @119788 has 167 MA's), (55, 119806), (77, 119938), (82, 119956), (98, 120016), (119, 120124), (124, 120148), (142, 120211), (144, 120217),

Gene: ChaylaJr_213 Start: 118767, Stop: 119222, Start Num: 47

Candidate Starts for ChaylaJr_213:

(16, 118653), (25, 118716), (Start: 30 @118734 has 2 MA's), (Start: 47 @118767 has 167 MA's), (55, 118785), (77, 118917), (82, 118935), (98, 118995), (119, 119103), (124, 119127), (142, 119190), (144, 119196),

Gene: Chickaboom_48 Start: 28813, Stop: 29241, Start Num: 57

Candidate Starts for Chickaboom_48:

(Start: 45 @28771 has 28 MA's), (56, 28807), (57, 28813), (75, 28909), (88, 28948), (93, 28969), (98, 28987), (102, 29023), (104, 29029), (110, 29074), (113, 29095), (124, 29146), (130, 29164), (142, 29209), (148, 29230),

Gene: ChickenPhender_211 Start: 118214, Stop: 118669, Start Num: 47

Candidate Starts for ChickenPhender_211:

(16, 118100), (25, 118163), (Start: 30 @118181 has 2 MA's), (Start: 47 @118214 has 167 MA's), (55, 118232), (77, 118364), (82, 118382), (98, 118442), (119, 118550), (124, 118574), (142, 118637), (144, 118643),

Gene: Chomp_214 Start: 120837, Stop: 121292, Start Num: 47

Candidate Starts for Chomp_214:

(16, 120723), (25, 120786), (Start: 30 @120804 has 2 MA's), (Start: 47 @120837 has 167 MA's), (55, 120855), (77, 120987), (82, 121005), (98, 121065), (119, 121173), (124, 121197), (142, 121260), (144, 121266),

Gene: CindyLou_216 Start: 121097, Stop: 121552, Start Num: 47

Candidate Starts for CindyLou_216:

(16, 120983), (25, 121046), (Start: 30 @121064 has 2 MA's), (Start: 47 @121097 has 167 MA's), (55, 121115), (77, 121247), (82, 121265), (98, 121325), (119, 121433), (124, 121457), (142, 121520), (144, 121526),

Gene: Colt_206 Start: 122873, Stop: 123328, Start Num: 47

Candidate Starts for Colt_206:

(16, 122759), (25, 122822), (Start: 30 @122840 has 2 MA's), (Start: 47 @122873 has 167 MA's), (55, 122891), (77, 123023), (82, 123041), (98, 123101), (119, 123209), (124, 123233), (142, 123296),

Gene: Concombres_220 Start: 121707, Stop: 122162, Start Num: 47

Candidate Starts for Concombres_220:

(16, 121593), (25, 121656), (Start: 30 @121674 has 2 MA's), (Start: 47 @121707 has 167 MA's), (55, 121725), (77, 121857), (82, 121875), (98, 121935), (119, 122043), (124, 122067), (142, 122130), (144, 122136),

Gene: CookieBear_82 Start: 47392, Stop: 47817, Start Num: 44

Candidate Starts for CookieBear_82:

(13, 47287), (Start: 44 @47392 has 11 MA's), (48, 47404), (55, 47419), (59, 47449), (61, 47455), (70, 47479), (111, 47647), (113, 47659), (122, 47704), (139, 47782),

Gene: Coral_43 Start: 27133, Stop: 27600, Start Num: 45

Candidate Starts for Coral_43:

(24, 27076), (Start: 45 @27133 has 28 MA's), (56, 27169), (69, 27229), (78, 27280), (83, 27295), (85, 27298), (93, 27331), (106, 27409), (108, 27421), (119, 27481), (124, 27505), (138, 27556), (140, 27562), (147, 27583), (148, 27589),

Gene: Cote_45 Start: 27610, Stop: 28077, Start Num: 45

Candidate Starts for Cote_45:

(24, 27553), (Start: 45 @27610 has 28 MA's), (56, 27646), (69, 27706), (78, 27757), (83, 27772), (93, 27808), (106, 27886), (108, 27898), (119, 27958), (124, 27982), (138, 28033), (140, 28039), (147, 28060), (148, 28066),

Gene: DTDevon_217 Start: 121586, Stop: 122041, Start Num: 47

Candidate Starts for DTDevon_217:

(16, 121472), (25, 121535), (Start: 30 @121553 has 2 MA's), (Start: 47 @121586 has 167 MA's), (55, 121604), (77, 121736), (82, 121754), (98, 121814), (119, 121922), (124, 121946), (142, 122009), (144, 122015),

Gene: Daffodil_220 Start: 120551, Stop: 121006, Start Num: 47

Candidate Starts for Daffodil_220:

(16, 120437), (25, 120500), (Start: 30 @120518 has 2 MA's), (Start: 47 @120551 has 167 MA's), (55, 120569), (77, 120701), (82, 120719), (98, 120779), (119, 120887), (124, 120911), (142, 120974), (144, 120980),

Gene: Dandelion_223 Start: 123191, Stop: 123646, Start Num: 47

Candidate Starts for Dandelion_223:

(16, 123077), (25, 123140), (Start: 30 @123158 has 2 MA's), (Start: 47 @123191 has 167 MA's), (55, 123209), (77, 123341), (82, 123359), (98, 123419), (119, 123527), (124, 123551), (142, 123614), (144, 123620),

Gene: Daob_45 Start: 27618, Stop: 28085, Start Num: 45

Candidate Starts for Daob_45:

(24, 27561), (Start: 45 @27618 has 28 MA's), (56, 27654), (69, 27714), (78, 27765), (83, 27780), (93, 27816), (106, 27894), (108, 27906), (119, 27966), (124, 27990), (138, 28041), (140, 28047), (147, 28068), (148, 28074),

Gene: Darko_214 Start: 119785, Stop: 120240, Start Num: 47

Candidate Starts for Darko_214:

(16, 119671), (25, 119734), (Start: 30 @119752 has 2 MA's), (Start: 47 @119785 has 167 MA's), (55, 119803), (77, 119935), (82, 119953), (98, 120013), (119, 120121), (124, 120145), (142, 120208), (144, 120214),

Gene: DelaGarza_42 Start: 25918, Stop: 25496, Start Num: 39

Candidate Starts for DelaGarza_42:

(8, 26086), (19, 25999), (Start: 39 @25918 has 2 MA's), (60, 25852), (75, 25783), (79, 25771), (100, 25711), (120, 25606),

Gene: Delilah_213 Start: 120669, Stop: 121124, Start Num: 47

Candidate Starts for Delilah_213:

(16, 120555), (25, 120618), (Start: 30 @120636 has 2 MA's), (Start: 47 @120669 has 167 MA's), (55, 120687), (77, 120819), (82, 120837), (98, 120897), (119, 121005), (124, 121029), (142, 121092), (144, 121098),

Gene: Delylah_217 Start: 120958, Stop: 121413, Start Num: 47

Candidate Starts for Delylah_217:

(16, 120844), (25, 120907), (Start: 30 @120925 has 2 MA's), (Start: 47 @120958 has 167 MA's), (55, 120976), (77, 121108), (82, 121126), (98, 121186), (119, 121294), (124, 121318), (142, 121381), (144, 121387),

Gene: Derek_212 Start: 120114, Stop: 120569, Start Num: 47

Candidate Starts for Derek_212:

(16, 120000), (25, 120063), (Start: 30 @120081 has 2 MA's), (Start: 47 @120114 has 167 MA's), (55, 120132), (77, 120264), (82, 120282), (98, 120342), (119, 120450), (124, 120474), (142, 120537), (144, 120543),

Gene: Dietrick_204 Start: 118790, Stop: 119245, Start Num: 47

Candidate Starts for Dietrick_204:

(16, 118676), (25, 118739), (Start: 30 @118757 has 2 MA's), (Start: 47 @118790 has 167 MA's), (55, 118808), (77, 118940), (82, 118958), (98, 119018), (119, 119126), (124, 119150), (142, 119213), (144, 119219),

Gene: DinoDaryn_57 Start: 37067, Stop: 37507, Start Num: 29

Candidate Starts for DinoDaryn_57:

(Start: 29 @37067 has 5 MA's), (41, 37082), (55, 37106), (69, 37160), (92, 37262), (98, 37286), (107, 37331),

Gene: DirtMonster_208 Start: 120030, Stop: 120485, Start Num: 47

Candidate Starts for DirtMonster_208:

(16, 119916), (25, 119979), (Start: 30 @119997 has 2 MA's), (Start: 47 @120030 has 167 MA's), (55, 120048), (77, 120180), (82, 120198), (98, 120258), (119, 120366), (124, 120390), (142, 120453), (144, 120459),

Gene: DrPhinkDaddy_212 Start: 121329, Stop: 121784, Start Num: 47

Candidate Starts for DrPhinkDaddy_212:

(16, 121215), (25, 121278), (Start: 30 @121296 has 2 MA's), (Start: 47 @121329 has 167 MA's), (55, 121347), (77, 121479), (82, 121497), (98, 121557), (119, 121665), (124, 121689), (142, 121752), (144, 121758),

Gene: Drazdys_213 Start: 120231, Stop: 120686, Start Num: 47

Candidate Starts for Drazdys_213:

(16, 120117), (25, 120180), (Start: 30 @120198 has 2 MA's), (Start: 47 @120231 has 167 MA's), (55, 120249), (77, 120381), (82, 120399), (98, 120459), (119, 120567), (124, 120591), (142, 120654), (144, 120660),

Gene: ET08_203 Start: 119822, Stop: 120277, Start Num: 47

Candidate Starts for ET08_203:

(16, 119708), (25, 119771), (Start: 30 @119789 has 2 MA's), (Start: 47 @119822 has 167 MA's), (55, 119840), (77, 119972), (82, 119990), (98, 120050), (119, 120158), (124, 120182), (142, 120245), (144, 120251),

Gene: EasyJones_218 Start: 119310, Stop: 119765, Start Num: 47

Candidate Starts for EasyJones_218:

(16, 119196), (25, 119259), (Start: 30 @119277 has 2 MA's), (Start: 47 @119310 has 167 MA's), (55, 119328), (77, 119460), (82, 119478), (98, 119538), (119, 119646), (124, 119670), (142, 119733), (144, 119739),

Gene: Eesa_42 Start: 29653, Stop: 30120, Start Num: 45

Candidate Starts for Eesa_42:

(Start: 45 @29653 has 28 MA's), (56, 29689), (69, 29749), (83, 29815), (93, 29851), (98, 29869), (106, 29929), (113, 29974), (119, 30001), (124, 30025), (126, 30031), (140, 30082), (148, 30109),

Gene: EggyFarm_224 Start: 122165, Stop: 122620, Start Num: 47

Candidate Starts for EggyFarm_224:

(16, 122051), (25, 122114), (Start: 30 @122132 has 2 MA's), (32, 122135), (Start: 47 @122165 has 167 MA's), (55, 122183), (77, 122315), (82, 122333), (98, 122393), (119, 122501), (124, 122525), (142, 122588), (144, 122594),

Gene: EmToTheThree_215 Start: 120702, Stop: 121157, Start Num: 47

Candidate Starts for EmToTheThree_215:

(16, 120588), (25, 120651), (Start: 30 @120669 has 2 MA's), (Start: 47 @120702 has 167 MA's), (55, 120720), (77, 120852), (82, 120870), (98, 120930), (119, 121038), (124, 121062), (142, 121125), (144, 121131),

Gene: EmmaElysia_219 Start: 120993, Stop: 121448, Start Num: 47

Candidate Starts for EmmaElysia_219:

(16, 120879), (25, 120942), (Start: 30 @120960 has 2 MA's), (Start: 47 @120993 has 167 MA's), (55, 121011), (77, 121143), (82, 121161), (98, 121221), (119, 121329), (124, 121353), (142, 121416), (144, 121422),

Gene: Erdmann_216 Start: 120661, Stop: 121116, Start Num: 47

Candidate Starts for Erdmann_216:

(16, 120547), (25, 120610), (Start: 30 @120628 has 2 MA's), (Start: 47 @120661 has 167 MA's), (55, 120679), (77, 120811), (82, 120829), (98, 120889), (119, 120997), (124, 121021), (142, 121084), (144, 121090),

Gene: ErnieJ_208 Start: 117489, Stop: 117944, Start Num: 47

Candidate Starts for ErnieJ_208:

(16, 117375), (25, 117438), (Start: 30 @117456 has 2 MA's), (Start: 47 @117489 has 167 MA's), (55, 117507), (77, 117639), (82, 117657), (98, 117717), (119, 117825), (124, 117849), (142, 117912), (144, 117918),

Gene: Essence_212 Start: 119443, Stop: 119898, Start Num: 47

Candidate Starts for Essence_212:

(16, 119329), (25, 119392), (Start: 30 @119410 has 2 MA's), (Start: 47 @119443 has 167 MA's), (55, 119461), (77, 119593), (82, 119611), (98, 119671), (119, 119779), (124, 119803), (142, 119866), (144, 119872),

Gene: EvePickles_87 Start: 49459, Stop: 49884, Start Num: 44

Candidate Starts for EvePickles_87:

(Start: 44 @49459 has 11 MA's), (48, 49471), (55, 49486), (59, 49516), (61, 49522), (80, 49594), (93, 49636), (114, 49729), (121, 49765), (139, 49849),

Gene: Ewok_214 Start: 120579, Stop: 121034, Start Num: 47

Candidate Starts for Ewok_214:

(16, 120465), (25, 120528), (Start: 30 @120546 has 2 MA's), (Start: 47 @120579 has 167 MA's), (55, 120597), (77, 120729), (82, 120747), (98, 120807), (119, 120915), (124, 120939), (142, 121002), (144, 121008),

Gene: Faja_87 Start: 48745, Stop: 49170, Start Num: 44

Candidate Starts for Faja_87:

(13, 48640), (Start: 44 @48745 has 11 MA's), (48, 48757), (55, 48772), (59, 48802), (61, 48808), (70, 48832), (80, 48880), (93, 48922), (110, 48991), (139, 49135),

Gene: Flabslab_210 Start: 117631, Stop: 118086, Start Num: 47

Candidate Starts for Flabslab_210:

(16, 117517), (25, 117580), (Start: 30 @117598 has 2 MA's), (Start: 47 @117631 has 167 MA's), (55, 117649), (77, 117781), (82, 117799), (98, 117859), (119, 117967), (124, 117991), (142, 118054), (144, 118060),

Gene: Fludd_215 Start: 119022, Stop: 119477, Start Num: 47

Candidate Starts for Fludd_215:

(16, 118908), (25, 118971), (Start: 30 @118989 has 2 MA's), (Start: 47 @119022 has 167 MA's), (55, 119040), (77, 119172), (82, 119190), (98, 119250), (119, 119358), (124, 119382), (142, 119445), (144, 119451),

Gene: FoxtrotP1_213 Start: 121259, Stop: 121714, Start Num: 47

Candidate Starts for FoxtrotP1_213:

(16, 121145), (25, 121208), (Start: 30 @121226 has 2 MA's), (Start: 47 @121259 has 167 MA's), (55, 121277), (77, 121409), (82, 121427), (98, 121487), (119, 121595), (124, 121619), (142, 121682), (144, 121688),

Gene: FrayBell_218 Start: 119112, Stop: 119567, Start Num: 47

Candidate Starts for FrayBell_218:

(16, 118998), (25, 119061), (Start: 30 @119079 has 2 MA's), (Start: 47 @119112 has 167 MA's), (55, 119130), (77, 119262), (82, 119280), (98, 119340), (119, 119448), (124, 119472), (142, 119535), (144, 119541),

Gene: Fregley_61 Start: 42057, Stop: 41593, Start Num: 43

Candidate Starts for Fregley_61:

(41, 42060), (Start: 43 @42057 has 1 MA's), (58, 42012), (75, 41925), (87, 41889), (103, 41814), (116, 41748), (119, 41736), (120, 41733), (133, 41682), (150, 41619), (151, 41616),

Gene: FudgeTart_210 Start: 119726, Stop: 120181, Start Num: 47

Candidate Starts for FudgeTart_210:

(16, 119612), (25, 119675), (Start: 30 @119693 has 2 MA's), (Start: 47 @119726 has 167 MA's), (55, 119744), (77, 119876), (82, 119894), (98, 119954), (119, 120062), (124, 120086), (142, 120149), (144, 120155),

Gene: Gabriel_218 Start: 119181, Stop: 119636, Start Num: 47

Candidate Starts for Gabriel_218:

(16, 119067), (25, 119130), (Start: 30 @119148 has 2 MA's), (Start: 47 @119181 has 167 MA's), (55, 119199), (77, 119331), (82, 119349), (98, 119409), (119, 119517), (124, 119541), (142, 119604), (144, 119610),

Gene: Galaxy_41 Start: 27422, Stop: 27892, Start Num: 45

Candidate Starts for Galaxy_41:

(Start: 45 @27422 has 28 MA's), (51, 27437), (56, 27458), (57, 27464), (75, 27560), (93, 27620), (98, 27638), (102, 27674), (119, 27773), (124, 27797), (130, 27815), (140, 27854), (142, 27860), (148, 27881),

Gene: Gamgam_216 Start: 119538, Stop: 119993, Start Num: 47

Candidate Starts for Gamgam_216:

(16, 119424), (25, 119487), (Start: 30 @119505 has 2 MA's), (Start: 47 @119538 has 167 MA's), (55, 119556), (77, 119688), (82, 119706), (98, 119766), (119, 119874), (124, 119898), (142, 119961), (144, 119967),

Gene: Ghost_215 Start: 119459, Stop: 119914, Start Num: 47

Candidate Starts for Ghost_215:

(16, 119345), (25, 119408), (Start: 30 @119426 has 2 MA's), (Start: 47 @119459 has 167 MA's), (55, 119477), (72, 119579), (77, 119609), (82, 119627), (98, 119687), (119, 119795), (124, 119819), (142, 119882), (144, 119888),

Gene: Gingerbug_41 Start: 26445, Stop: 26023, Start Num: 39

Candidate Starts for Gingerbug_41:

(Start: 39 @26445 has 2 MA's), (67, 26358), (94, 26262), (96, 26256), (100, 26238), (124, 26112), (129, 26097), (136, 26067), (146, 26037),

Gene: Gizmo_221 Start: 122577, Stop: 123032, Start Num: 47

Candidate Starts for Gizmo_221:

(16, 122463), (25, 122526), (Start: 30 @122544 has 2 MA's), (Start: 47 @122577 has 167 MA's), (55, 122595), (77, 122727), (82, 122745), (98, 122805), (119, 122913), (124, 122937), (142, 123000), (144, 123006),

Gene: Globfish_84 Start: 47023, Stop: 47436, Start Num: 48

Candidate Starts for Globfish_84:

(Start: 43 @47014 has 1 MA's), (48, 47023), (55, 47038), (59, 47068), (61, 47074), (70, 47098), (93, 47188), (111, 47266), (113, 47278), (139, 47401),

Gene: Goib_58 Start: 38192, Stop: 38617, Start Num: 38

Candidate Starts for Goib_58:

(Start: 30 @38183 has 2 MA's), (36, 38189), (Start: 38 @38192 has 1 MA's), (55, 38216), (69, 38270), (92, 38372), (98, 38396), (107, 38441),

Gene: Gorpy_83 Start: 48809, Stop: 49234, Start Num: 44

Candidate Starts for Gorpy_83:

(Start: 44 @48809 has 11 MA's), (48, 48821), (55, 48836), (59, 48866), (61, 48872), (111, 49064), (113, 49076), (139, 49199),

Gene: Grasshills_223 Start: 122164, Stop: 122619, Start Num: 47

Candidate Starts for Grasshills_223:

(16, 122050), (25, 122113), (Start: 30 @122131 has 2 MA's), (32, 122134), (Start: 47 @122164 has 167 MA's), (55, 122182), (77, 122314), (82, 122332), (98, 122392), (119, 122500), (124, 122524), (142, 122587), (144, 122593),

Gene: Grungle_199 Start: 117496, Stop: 117951, Start Num: 47

Candidate Starts for Grungle_199:

(16, 117382), (25, 117445), (Start: 30 @117463 has 2 MA's), (Start: 47 @117496 has 167 MA's), (55, 117514), (77, 117646), (82, 117664), (98, 117724), (119, 117832), (124, 117856), (142, 117919), (144, 117925),

Gene: Guwapp_210 Start: 118293, Stop: 118748, Start Num: 47

Candidate Starts for Guwapp_210:

(16, 118179), (25, 118242), (Start: 30 @118260 has 2 MA's), (Start: 47 @118293 has 167 MA's), (55, 118311), (77, 118443), (82, 118461), (98, 118521), (119, 118629), (124, 118653), (142, 118716), (144, 118722),

Gene: Halldule_208 Start: 118678, Stop: 119133, Start Num: 47

Candidate Starts for Halldule_208:

(16, 118564), (25, 118627), (Start: 30 @118645 has 2 MA's), (Start: 47 @118678 has 167 MA's), (55, 118696), (77, 118828), (82, 118846), (98, 118906), (119, 119014), (124, 119038), (142, 119101), (144, 119107),

Gene: HannahPhantana_51 Start: 27280, Stop: 27747, Start Num: 45

Candidate Starts for HannahPhantana_51:

(24, 27223), (Start: 45 @27280 has 28 MA's), (56, 27316), (69, 27376), (78, 27427), (83, 27442), (93, 27478), (106, 27556), (108, 27568), (119, 27628), (124, 27652), (138, 27703), (140, 27709), (147, 27730), (148, 27736),

Gene: Hestia_80 Start: 45962, Stop: 46387, Start Num: 44

Candidate Starts for Hestia_80:

(Start: 44 @45962 has 11 MA's), (48, 45974), (55, 45989), (59, 46019), (61, 46025), (70, 46049), (93, 46139), (139, 46352),

Gene: Hillester_90 Start: 48709, Stop: 49134, Start Num: 44

Candidate Starts for Hillester_90:

(27, 48679), (Start: 44 @48709 has 11 MA's), (48, 48721), (55, 48736), (59, 48766), (61, 48772), (70, 48796), (80, 48844), (93, 48886), (110, 48955), (139, 49099),

Gene: Huffy_57 Start: 37067, Stop: 37507, Start Num: 29

Candidate Starts for Huffy_57:

(Start: 29 @37067 has 5 MA's), (41, 37082), (55, 37106), (69, 37160), (92, 37262), (98, 37286), (107, 37331),

Gene: HyRo_203 Start: 118809, Stop: 119264, Start Num: 47

Candidate Starts for HyRo_203:

(16, 118695), (25, 118758), (Start: 30 @118776 has 2 MA's), (Start: 47 @118809 has 167 MA's), (55, 118827), (77, 118959), (82, 118977), (98, 119037), (119, 119145), (124, 119169), (142, 119232), (144, 119238),

Gene: I3_225 Start: 121254, Stop: 121709, Start Num: 47

Candidate Starts for I3_225:

(16, 121140), (25, 121203), (Start: 30 @121221 has 2 MA's), (Start: 47 @121254 has 167 MA's), (55, 121272), (63, 121314), (77, 121404), (82, 121422), (98, 121482), (119, 121590), (124, 121614), (142, 121677), (144, 121683),

Gene: IkeLoa_207 Start: 119203, Stop: 119658, Start Num: 47

Candidate Starts for IkeLoa_207:

(16, 119089), (25, 119152), (Start: 30 @119170 has 2 MA's), (Start: 47 @119203 has 167 MA's), (55, 119221), (77, 119353), (82, 119371), (98, 119431), (119, 119539), (124, 119563), (142, 119626), (144, 119632),

Gene: InigoMontoya_218 Start: 120212, Stop: 120667, Start Num: 47

Candidate Starts for InigoMontoya_218:

(16, 120098), (25, 120161), (Start: 30 @120179 has 2 MA's), (Start: 47 @120212 has 167 MA's), (55, 120230), (77, 120362), (82, 120380), (98, 120440), (119, 120548), (124, 120572), (142, 120635), (144, 120641),

Gene: InterFolia_218 Start: 120917, Stop: 121372, Start Num: 47

Candidate Starts for InterFolia_218:

(16, 120803), (25, 120866), (Start: 30 @120884 has 2 MA's), (Start: 47 @120917 has 167 MA's), (55, 120935), (77, 121067), (82, 121085), (98, 121145), (119, 121253), (124, 121277), (142, 121340), (144, 121346),

Gene: Iota_210 Start: 119897, Stop: 120352, Start Num: 47

Candidate Starts for Iota_210:

(16, 119783), (25, 119846), (Start: 30 @119864 has 2 MA's), (Start: 47 @119897 has 167 MA's), (55, 119915), (77, 120047), (82, 120065), (98, 120125), (119, 120233), (124, 120257), (142, 120320), (144, 120326),

Gene: Isolde_87 Start: 49198, Stop: 49623, Start Num: 44

Candidate Starts for Isolde_87:

(27, 49168), (Start: 44 @49198 has 11 MA's), (48, 49210), (55, 49225), (59, 49255), (61, 49261), (70, 49285), (139, 49588),

Gene: Issimir_211 Start: 119850, Stop: 120305, Start Num: 47

Candidate Starts for Issimir_211:

(16, 119736), (25, 119799), (Start: 30 @119817 has 2 MA's), (Start: 47 @119850 has 167 MA's), (55, 119868), (77, 120000), (82, 120018), (98, 120078), (119, 120186), (124, 120210), (142, 120273), (144, 120279),

Gene: Izajani_213 Start: 120719, Stop: 121174, Start Num: 47

Candidate Starts for Izajani_213:

(16, 120605), (25, 120668), (Start: 30 @120686 has 2 MA's), (Start: 47 @120719 has 167 MA's), (55, 120737), (77, 120869), (82, 120887), (98, 120947), (119, 121055), (124, 121079), (142, 121142), (144, 121148),

Gene: JPickles_211 Start: 118197, Stop: 118652, Start Num: 47

Candidate Starts for JPickles_211:

(16, 118083), (25, 118146), (Start: 30 @118164 has 2 MA's), (Start: 47 @118197 has 167 MA's), (55, 118215), (77, 118347), (82, 118365), (98, 118425), (119, 118533), (124, 118557), (142, 118620), (144, 118626),

Gene: Jamun_42 Start: 28931, Stop: 29401, Start Num: 45

Candidate Starts for Jamun_42:

(Start: 45 @28931 has 28 MA's), (56, 28967), (57, 28973), (75, 29069), (93, 29129), (98, 29147), (102, 29183), (106, 29210), (110, 29234), (119, 29282), (124, 29306), (130, 29324), (138, 29357), (140, 29363), (142, 29369), (148, 29390),

Gene: Janiyra_218 Start: 120437, Stop: 120892, Start Num: 47

Candidate Starts for Janiyra_218:

(16, 120323), (25, 120386), (Start: 30 @120404 has 2 MA's), (Start: 47 @120437 has 167 MA's), (55, 120455), (77, 120587), (82, 120605), (98, 120665), (119, 120773), (124, 120797), (142, 120860), (144, 120866),

Gene: JayJay_213 Start: 120141, Stop: 120596, Start Num: 47

Candidate Starts for JayJay_213:

(16, 120027), (25, 120090), (Start: 30 @120108 has 2 MA's), (Start: 47 @120141 has 167 MA's), (55, 120159), (77, 120291), (82, 120309), (98, 120369), (119, 120477), (124, 120501), (142, 120564), (144, 120570),

Gene: Jaygup_211 Start: 119258, Stop: 119713, Start Num: 47

Candidate Starts for Jaygup_211:

(16, 119144), (25, 119207), (Start: 30 @119225 has 2 MA's), (Start: 47 @119258 has 167 MA's), (55, 119276), (77, 119408), (82, 119426), (98, 119486), (119, 119594), (124, 119618), (142, 119681), (144, 119687),

Gene: Jedediah_215 Start: 120311, Stop: 120766, Start Num: 47

Candidate Starts for Jedediah_215:

(16, 120197), (25, 120260), (Start: 30 @120278 has 2 MA's), (Start: 47 @120311 has 167 MA's), (55, 120329), (77, 120461), (82, 120479), (98, 120539), (119, 120647), (124, 120671), (142, 120734), (144, 120740),

Gene: Jemmno_214 Start: 119140, Stop: 119595, Start Num: 47

Candidate Starts for Jemmno_214:

(16, 119026), (25, 119089), (Start: 30 @119107 has 2 MA's), (Start: 47 @119140 has 167 MA's), (55, 119158), (77, 119290), (82, 119308), (98, 119368), (119, 119476), (124, 119500), (142, 119563), (144, 119569),

Gene: Jessibeth14_215 Start: 121328, Stop: 121783, Start Num: 47

Candidate Starts for Jessibeth14_215:

(16, 121214), (25, 121277), (Start: 30 @121295 has 2 MA's), (Start: 47 @121328 has 167 MA's), (55, 121346), (77, 121478), (82, 121496), (98, 121556), (119, 121664), (124, 121688), (142, 121751), (144, 121757),

Gene: JulietS_208 Start: 117438, Stop: 117893, Start Num: 47

Candidate Starts for JulietS_208:

(1, 116919), (16, 117324), (25, 117387), (Start: 30 @117405 has 2 MA's), (Start: 47 @117438 has 167 MA's), (55, 117456), (77, 117588), (82, 117606), (98, 117666), (119, 117774), (124, 117798), (142, 117861), (144, 117867),

Gene: Juno112_45 Start: 28343, Stop: 28813, Start Num: 45

Candidate Starts for Juno112_45:

(Start: 45 @28343 has 28 MA's), (56, 28379), (72, 28460), (75, 28484), (83, 28508), (91, 28532), (93, 28544), (95, 28553), (98, 28562), (102, 28598), (108, 28634), (110, 28646), (113, 28667), (115, 28679), (125, 28721), (138, 28769), (141, 28778),

Gene: JustHall_209 Start: 119344, Stop: 119799, Start Num: 47

Candidate Starts for JustHall_209:

(16, 119230), (25, 119293), (Start: 30 @119311 has 2 MA's), (Start: 47 @119344 has 167 MA's), (55, 119362), (77, 119494), (82, 119512), (98, 119572), (119, 119680), (124, 119704), (142, 119767), (144, 119773),

Gene: KHumphrey_44 Start: 28276, Stop: 28710, Start Num: 56

Candidate Starts for KHumphrey_44:

(Start: 45 @28240 has 28 MA's), (56, 28276), (72, 28357), (75, 28381), (83, 28405), (91, 28429), (93, 28441), (95, 28450), (98, 28459), (102, 28495), (108, 28531), (113, 28564), (115, 28576), (125, 28618), (138, 28666), (141, 28675),

Gene: Kamryn_214 Start: 120974, Stop: 121429, Start Num: 47

Candidate Starts for Kamryn_214:

(16, 120860), (25, 120923), (Start: 30 @120941 has 2 MA's), (Start: 47 @120974 has 167 MA's), (55, 120992), (77, 121124), (82, 121142), (98, 121202), (119, 121310), (124, 121334), (142, 121397), (144, 121403),

Gene: Kboogie_219 Start: 120002, Stop: 120457, Start Num: 47

Candidate Starts for Kboogie_219:

(16, 119888), (25, 119951), (Start: 30 @119969 has 2 MA's), (Start: 47 @120002 has 167 MA's), (55, 120020), (77, 120152), (82, 120170), (98, 120230), (119, 120338), (124, 120362), (142, 120425), (144, 120431),

Gene: Kepler_45 Start: 28028, Stop: 28495, Start Num: 45

Candidate Starts for Kepler_45:

(24, 27971), (Start: 45 @28028 has 28 MA's), (56, 28064), (69, 28124), (78, 28175), (83, 28190), (85, 28193), (93, 28226), (106, 28304), (108, 28316), (119, 28376), (124, 28400), (138, 28451), (140, 28457), (148, 28484),

Gene: Khaleesi_214 Start: 120795, Stop: 121250, Start Num: 47

Candidate Starts for Khaleesi_214:

(16, 120681), (25, 120744), (Start: 30 @120762 has 2 MA's), (Start: 47 @120795 has 167 MA's), (55, 120813), (77, 120945), (82, 120963), (98, 121023), (119, 121131), (124, 121155), (142, 121218), (144, 121224),

Gene: Khuang_63 Start: 36921, Stop: 37343, Start Num: 45

Candidate Starts for Khuang_63:

(Start: 45 @36921 has 28 MA's), (70, 37011), (71, 37017), (92, 37095), (119, 37233),

Gene: Koguma_214 Start: 119655, Stop: 120110, Start Num: 47

Candidate Starts for Koguma_214:

(16, 119541), (25, 119604), (Start: 30 @119622 has 2 MA's), (Start: 47 @119655 has 167 MA's), (55, 119673), (77, 119805), (82, 119823), (98, 119883), (119, 119991), (124, 120015), (142, 120078), (144, 120084),

Gene: Kudfre_85 Start: 49906, Stop: 50304, Start Num: 46

Candidate Starts for Kudfre_85:

(Start: 46 @49906 has 7 MA's), (53, 49918), (55, 49924), (69, 49978), (79, 50032), (87, 50059), (98, 50095), (101, 50113), (110, 50155), (111, 50164), (113, 50176), (138, 50275),

Gene: Kuleana_45 Start: 27612, Stop: 28070, Start Num: 45

Candidate Starts for Kuleana_45:

(Start: 45 @27612 has 28 MA's), (56, 27648), (83, 27777), (90, 27795), (93, 27813), (98, 27831), (124, 27987), (138, 28038), (140, 28044), (145, 28059),

Gene: Kumotta_70 Start: 37512, Stop: 37922, Start Num: 49

Candidate Starts for Kumotta_70:

(Start: 49 @37512 has 2 MA's),

Gene: LRRHood_208 Start: 119007, Stop: 119462, Start Num: 47

Candidate Starts for LRRHood_208:

(16, 118893), (25, 118956), (Start: 30 @118974 has 2 MA's), (Start: 47 @119007 has 167 MA's), (55, 119025), (77, 119157), (82, 119175), (98, 119235), (119, 119343), (124, 119367), (142, 119430), (144, 119436),

Gene: Latch_215 Start: 119548, Stop: 120003, Start Num: 47

Candidate Starts for Latch_215:

(16, 119434), (25, 119497), (Start: 30 @119515 has 2 MA's), (Start: 47 @119548 has 167 MA's), (55, 119566), (77, 119698), (82, 119716), (98, 119776), (119, 119884), (124, 119908), (142, 119971), (144, 119977),

Gene: Lee7_215 Start: 122175, Stop: 122630, Start Num: 47

Candidate Starts for Lee7_215:

(16, 122061), (25, 122124), (Start: 30 @122142 has 2 MA's), (Start: 47 @122175 has 167 MA's), (55, 122193), (77, 122325), (82, 122343), (98, 122403), (119, 122511), (124, 122535), (142, 122598), (144, 122604),

Gene: Leona_44 Start: 28420, Stop: 28890, Start Num: 45

Candidate Starts for Leona_44:

(Start: 45 @28420 has 28 MA's), (56, 28456), (75, 28561), (83, 28585), (91, 28609), (93, 28621), (95, 28630), (98, 28639), (102, 28675), (108, 28711), (110, 28723), (113, 28744), (115, 28756), (125, 28798), (138, 28846), (141, 28855),

Gene: Lesiram_42 Start: 25890, Stop: 25468, Start Num: 39

Candidate Starts for Lesiram_42:

(Start: 39 @25890 has 2 MA's), (60, 25824), (75, 25755), (79, 25743), (99, 25692), (100, 25683), (120, 25578),

Gene: LifeSavor_214 Start: 120073, Stop: 120528, Start Num: 47

Candidate Starts for LifeSavor_214:

(16, 119959), (25, 120022), (Start: 30 @120040 has 2 MA's), (Start: 47 @120073 has 167 MA's), (55, 120091), (77, 120223), (82, 120241), (98, 120301), (119, 120409), (124, 120433), (142, 120496), (144, 120502),

Gene: LinStu_214 Start: 119294, Stop: 119749, Start Num: 47

Candidate Starts for LinStu_214:

(16, 119180), (25, 119243), (Start: 30 @119261 has 2 MA's), (Start: 47 @119294 has 167 MA's), (55, 119312), (77, 119444), (82, 119462), (98, 119522), (119, 119630), (124, 119654), (142, 119717), (144, 119723),

Gene: LittleTokyo_43 Start: 27119, Stop: 27583, Start Num: 45

Candidate Starts for LittleTokyo_43:

(Start: 45 @27119 has 28 MA's), (56, 27155), (75, 27260), (98, 27335), (110, 27416), (113, 27437), (138, 27539), (140, 27545),

Gene: Littleton_218 Start: 120785, Stop: 121240, Start Num: 47

Candidate Starts for Littleton_218:

(16, 120671), (25, 120734), (Start: 30 @120752 has 2 MA's), (Start: 47 @120785 has 167 MA's), (55, 120803), (77, 120935), (82, 120953), (98, 121013), (119, 121121), (124, 121145), (142, 121208), (144, 121214),

Gene: Loanshark_212 Start: 120110, Stop: 120565, Start Num: 47

Candidate Starts for Loanshark_212:

(16, 119996), (25, 120059), (Start: 30 @120077 has 2 MA's), (Start: 47 @120110 has 167 MA's), (55, 120128), (77, 120260), (82, 120278), (98, 120338), (119, 120446), (124, 120470), (142, 120533), (144, 120539),

Gene: LolaVinca_213 Start: 120347, Stop: 120802, Start Num: 47

Candidate Starts for LolaVinca_213:

(16, 120233), (25, 120296), (Start: 30 @120314 has 2 MA's), (Start: 47 @120347 has 167 MA's), (55, 120365), (77, 120497), (82, 120515), (98, 120575), (119, 120683), (124, 120707), (142, 120770), (144, 120776),

Gene: LordLeafolot_217 Start: 119960, Stop: 120415, Start Num: 47

Candidate Starts for LordLeafolot_217:

(16, 119846), (25, 119909), (Start: 30 @119927 has 2 MA's), (Start: 47 @119960 has 167 MA's), (55, 119978), (77, 120110), (82, 120128), (98, 120188), (119, 120296), (124, 120320), (142, 120383), (144, 120389),

Gene: Lukilu_206 Start: 121010, Stop: 121465, Start Num: 47

Candidate Starts for Lukilu_206:

(16, 120896), (25, 120959), (Start: 30 @120977 has 2 MA's), (Start: 47 @121010 has 167 MA's), (55, 121028), (77, 121160), (82, 121178), (98, 121238), (119, 121346), (124, 121370), (142, 121433), (144, 121439),

Gene: Lunar_45 Start: 27944, Stop: 28411, Start Num: 45

Candidate Starts for Lunar_45:

(24, 27887), (Start: 45 @27944 has 28 MA's), (56, 27980), (69, 28040), (78, 28091), (83, 28106), (93, 28142), (106, 28220), (108, 28232), (119, 28292), (124, 28316), (138, 28367), (140, 28373), (147, 28394), (148, 28400),

Gene: Maby2021_215 Start: 121239, Stop: 121694, Start Num: 47

Candidate Starts for Maby2021_215:

(16, 121125), (25, 121188), (Start: 30 @121206 has 2 MA's), (Start: 47 @121239 has 167 MA's), (55, 121257), (77, 121389), (82, 121407), (98, 121467), (119, 121575), (124, 121599), (142, 121662), (144, 121668),

Gene: MalagasyRose_70 Start: 46724, Stop: 47353, Start Num: 10

Candidate Starts for MalagasyRose_70:

(3, 46601), (6, 46634), (7, 46643), (Start: 10 @46724 has 1 MA's), (20, 46790), (23, 46805), (Start: 30 @46835 has 2 MA's), (33, 46841), (55, 46883), (73, 46973), (82, 47018), (84, 47021), (89, 47039), (92, 47060), (94, 47072), (97, 47081), (98, 47084), (107, 47129), (111, 47153), (113, 47165), (118, 47186), (119, 47189), (132, 47237), (137, 47258), (153, 47327),

Gene: Mangeria_216 Start: 121341, Stop: 121796, Start Num: 47

Candidate Starts for Mangeria_216:

(16, 121227), (25, 121290), (Start: 30 @121308 has 2 MA's), (Start: 47 @121341 has 167 MA's), (55, 121359), (77, 121491), (82, 121509), (98, 121569), (119, 121677), (124, 121701), (142, 121764), (144, 121770),

Gene: MargaretKali_66 Start: 36130, Stop: 36540, Start Num: 49

Candidate Starts for MargaretKali_66:

(Start: 49 @36130 has 2 MA's),

Gene: Matsumoto_214 Start: 119990, Stop: 120445, Start Num: 47

Candidate Starts for Matsumoto_214:

(16, 119876), (25, 119939), (Start: 30 @119957 has 2 MA's), (Start: 47 @119990 has 167 MA's), (55, 120008), (77, 120140), (82, 120158), (98, 120218), (119, 120326), (124, 120350), (142, 120413), (144, 120419),

Gene: McGee_214 Start: 119184, Stop: 119639, Start Num: 47

Candidate Starts for McGee_214:

(16, 119070), (25, 119133), (Start: 30 @119151 has 2 MA's), (Start: 47 @119184 has 167 MA's), (55, 119202), (77, 119334), (82, 119352), (98, 119412), (119, 119520), (124, 119544), (142, 119607), (144, 119613),

Gene: McWolfish_212 Start: 120006, Stop: 120461, Start Num: 47

Candidate Starts for McWolfish_212:

(16, 119892), (25, 119955), (Start: 30 @119973 has 2 MA's), (Start: 47 @120006 has 167 MA's), (55, 120024), (77, 120156), (82, 120174), (98, 120234), (119, 120342), (124, 120366), (142, 120429), (144, 120435),

Gene: Megamind_212 Start: 120297, Stop: 120752, Start Num: 47

Candidate Starts for Megamind_212:

(16, 120183), (25, 120246), (Start: 30 @120264 has 2 MA's), (Start: 47 @120297 has 167 MA's), (55, 120315), (77, 120447), (82, 120465), (98, 120525), (119, 120633), (124, 120657), (142, 120720), (144, 120726),

Gene: Melons_45 Start: 27758, Stop: 28225, Start Num: 45

Candidate Starts for Melons_45:

(24, 27701), (Start: 45 @27758 has 28 MA's), (56, 27794), (69, 27854), (78, 27905), (83, 27920), (85, 27923), (93, 27956), (106, 28034), (108, 28046), (119, 28106), (124, 28130), (138, 28181), (140, 28187), (147, 28208), (148, 28214),

Gene: Melpomini_210 Start: 119082, Stop: 119537, Start Num: 47

Candidate Starts for Melpomini_210:

(16, 118968), (25, 119031), (Start: 30 @119049 has 2 MA's), (Start: 47 @119082 has 167 MA's), (55, 119100), (77, 119232), (82, 119250), (98, 119310), (119, 119418), (124, 119442), (142, 119505), (144, 119511),

Gene: MichelleMyBell_49 Start: 33179, Stop: 33610, Start Num: 30

Candidate Starts for MichelleMyBell_49:

(11, 33071), (Start: 30 @33179 has 2 MA's), (50, 33215), (52, 33218), (82, 33347), (86, 33362), (93, 33383), (110, 33461), (118, 33503), (123, 33527), (127, 33539), (138, 33581),

Gene: MidnightRain_92 Start: 49545, Stop: 49970, Start Num: 44

Candidate Starts for MidnightRain_92:

(27, 49515), (Start: 44 @49545 has 11 MA's), (48, 49557), (55, 49572), (59, 49602), (61, 49608), (70, 49632), (80, 49680), (110, 49791), (139, 49935),

Gene: MikeLiesIn_217 Start: 121433, Stop: 121888, Start Num: 47

Candidate Starts for MikeLiesIn_217:

(16, 121319), (25, 121382), (Start: 30 @121400 has 2 MA's), (Start: 47 @121433 has 167 MA's), (55, 121451), (77, 121583), (82, 121601), (98, 121661), (119, 121769), (124, 121793), (142, 121856), (144, 121862),

Gene: Mikro_211 Start: 121982, Stop: 122437, Start Num: 47

Candidate Starts for Mikro_211:

(16, 121868), (25, 121931), (Start: 30 @121949 has 2 MA's), (Start: 47 @121982 has 167 MA's), (55, 122000), (77, 122132), (82, 122150), (98, 122210), (119, 122318), (124, 122342), (142, 122405), (144, 122411),

Gene: MoMoMixon_213 Start: 120472, Stop: 120927, Start Num: 47

Candidate Starts for MoMoMixon_213:

(16, 120358), (25, 120421), (Start: 30 @120439 has 2 MA's), (Start: 47 @120472 has 167 MA's), (55, 120490), (77, 120622), (82, 120640), (98, 120700), (119, 120808), (124, 120832), (142, 120895), (144, 120901),

Gene: Momo_216 Start: 119548, Stop: 120003, Start Num: 47

Candidate Starts for Momo_216:

(16, 119434), (25, 119497), (Start: 30 @119515 has 2 MA's), (Start: 47 @119548 has 167 MA's), (55, 119566), (77, 119698), (82, 119716), (98, 119776), (119, 119884), (124, 119908), (142, 119971), (144, 119977),

Gene: Morizzled23_212 Start: 118915, Stop: 119370, Start Num: 47

Candidate Starts for Morizzled23_212:

(16, 118801), (25, 118864), (Start: 30 @118882 has 2 MA's), (Start: 47 @118915 has 167 MA's), (55, 118933), (77, 119065), (82, 119083), (98, 119143), (119, 119251), (124, 119275), (142, 119338), (144, 119344),

Gene: Mufasa8_53 Start: 38883, Stop: 39419, Start Num: 21

Candidate Starts for Mufasa8_53:

(Start: 21 @38883 has 1 MA's), (32, 38925), (69, 39039), (70, 39042), (76, 39084), (92, 39129), (93, 39135), (95, 39144), (110, 39243), (117, 39282), (124, 39315), (149, 39408),

Gene: Naija_216 Start: 120251, Stop: 120706, Start Num: 47

Candidate Starts for Naija_216:

(16, 120137), (25, 120200), (Start: 30 @120218 has 2 MA's), (Start: 47 @120251 has 167 MA's), (55, 120269), (77, 120401), (82, 120419), (98, 120479), (119, 120587), (124, 120611), (142, 120674), (144, 120680),

Gene: Napoleon13_212 Start: 119279, Stop: 119734, Start Num: 47

Candidate Starts for Napoleon13_212:

(16, 119165), (25, 119228), (Start: 30 @119246 has 2 MA's), (Start: 47 @119279 has 167 MA's), (55, 119297), (77, 119429), (82, 119447), (98, 119507), (119, 119615), (124, 119639), (142, 119702), (144, 119708),

Gene: Nappy_216 Start: 120952, Stop: 121407, Start Num: 47

Candidate Starts for Nappy_216:

(16, 120838), (25, 120901), (Start: 30 @120919 has 2 MA's), (Start: 47 @120952 has 167 MA's), (55, 120970), (77, 121102), (82, 121120), (98, 121180), (119, 121288), (124, 121312), (142, 121375), (144, 121381),

Gene: Naval22_220 Start: 122028, Stop: 122483, Start Num: 47

Candidate Starts for Naval22_220:

(16, 121914), (25, 121977), (Start: 30 @121995 has 2 MA's), (Start: 47 @122028 has 167 MA's), (55, 122046), (77, 122178), (82, 122196), (98, 122256), (119, 122364), (124, 122388), (142, 122451), (144, 122457),

Gene: NedWong_214 Start: 120684, Stop: 121139, Start Num: 47

Candidate Starts for NedWong_214:

(16, 120570), (25, 120633), (Start: 30 @120651 has 2 MA's), (Start: 47 @120684 has 167 MA's), (55, 120702), (77, 120834), (82, 120852), (98, 120912), (119, 121020), (124, 121044), (142, 121107), (144, 121113),

Gene: Neville_76 Start: 48231, Stop: 48671, Start Num: 42

Candidate Starts for Neville_76:

(37, 48225), (Start: 42 @48231 has 4 MA's), (53, 48240), (74, 48333), (78, 48360), (92, 48402), (97, 48423), (98, 48426), (101, 48444), (110, 48489), (124, 48558), (126, 48564), (128, 48570), (129, 48573), (132, 48582), (142, 48621),

Gene: Ngannou_212 Start: 118530, Stop: 118985, Start Num: 47

Candidate Starts for Ngannou_212:

(16, 118416), (25, 118479), (Start: 30 @118497 has 2 MA's), (Start: 47 @118530 has 167 MA's), (55, 118548), (77, 118680), (82, 118698), (98, 118758), (119, 118866), (124, 118890), (142, 118953), (144, 118959),

Gene: Nidhogg_216 Start: 121077, Stop: 121532, Start Num: 47

Candidate Starts for Nidhogg_216:

(16, 120963), (25, 121026), (Start: 30 @121044 has 2 MA's), (Start: 47 @121077 has 167 MA's), (55, 121095), (77, 121227), (82, 121245), (98, 121305), (119, 121413), (124, 121437), (142, 121500), (144, 121506),

Gene: NoodleTree_221 Start: 120984, Stop: 121439, Start Num: 47

Candidate Starts for NoodleTree_221:

(16, 120870), (25, 120933), (Start: 30 @120951 has 2 MA's), (Start: 47 @120984 has 167 MA's), (55, 121002), (77, 121134), (82, 121152), (98, 121212), (119, 121320), (124, 121344), (142, 121407), (144, 121413),

Gene: Norm_215 Start: 120986, Stop: 121441, Start Num: 47

Candidate Starts for Norm_215:

(16, 120872), (25, 120935), (Start: 30 @120953 has 2 MA's), (Start: 47 @120986 has 167 MA's), (55, 121004), (77, 121136), (82, 121154), (98, 121214), (119, 121322), (124, 121346), (142, 121409), (144, 121415),

Gene: NuevoMundo_218 Start: 121545, Stop: 122000, Start Num: 47

Candidate Starts for NuevoMundo_218:

(16, 121431), (25, 121494), (Start: 30 @121512 has 2 MA's), (Start: 47 @121545 has 167 MA's), (55, 121563), (77, 121695), (82, 121713), (98, 121773), (119, 121881), (124, 121905), (142, 121968), (144, 121974),

Gene: Octobien14_83 Start: 49218, Stop: 49616, Start Num: 46

Candidate Starts for Octobien14_83:

(26, 49179), (Start: 46 @49218 has 7 MA's), (53, 49230), (55, 49236), (69, 49290), (79, 49344), (87, 49371), (95, 49398), (98, 49407), (101, 49425), (110, 49467), (111, 49476), (138, 49587),

Gene: Orcanus_43 Start: 29287, Stop: 29754, Start Num: 45

Candidate Starts for Orcanus_43:

(Start: 45 @29287 has 28 MA's), (56, 29323), (69, 29383), (83, 29449), (93, 29485), (106, 29563), (108, 29575), (113, 29608), (119, 29635), (124, 29659), (140, 29716), (147, 29737), (148, 29743),

Gene: ParkTD_214 Start: 120548, Stop: 121003, Start Num: 47

Candidate Starts for ParkTD_214:

(16, 120434), (25, 120497), (Start: 30 @120515 has 2 MA's), (Start: 47 @120548 has 167 MA's), (55, 120566), (77, 120698), (82, 120716), (98, 120776), (119, 120884), (124, 120908), (142, 120971), (144, 120977),

Gene: Patter_216 Start: 119562, Stop: 120017, Start Num: 47

Candidate Starts for Patter_216:

(16, 119448), (25, 119511), (Start: 30 @119529 has 2 MA's), (Start: 47 @119562 has 167 MA's), (55, 119580), (77, 119712), (82, 119730), (98, 119790), (119, 119898), (124, 119922), (142, 119985), (144, 119991),

Gene: Persistence_79 Start: 45632, Stop: 46033, Start Num: 45

Candidate Starts for Persistence_79:

(34, 45617), (Start: 45 @45632 has 28 MA's), (69, 45707), (71, 45716), (135, 45992),

Gene: Phlegm_219 Start: 120251, Stop: 120706, Start Num: 47

Candidate Starts for Phlegm_219:

(16, 120137), (25, 120200), (Start: 30 @120218 has 2 MA's), (Start: 47 @120251 has 167 MA's), (55, 120269), (77, 120401), (82, 120419), (98, 120479), (119, 120587), (124, 120611), (142, 120674), (144, 120680),

Gene: PhluffyCoco_45 Start: 28474, Stop: 28911, Start Num: 56

Candidate Starts for PhluffyCoco_45:

(Start: 45 @28438 has 28 MA's), (56, 28474), (72, 28555), (75, 28579), (93, 28639), (98, 28657), (113, 28765), (115, 28777), (140, 28873),

Gene: Phox_216 Start: 120213, Stop: 120668, Start Num: 47

Candidate Starts for Phox_216:

(16, 120099), (25, 120162), (Start: 30 @120180 has 2 MA's), (Start: 47 @120213 has 167 MA's), (55, 120231), (77, 120363), (82, 120381), (98, 120441), (119, 120549), (124, 120573), (142, 120636), (144, 120642),

Gene: Phrank15_93 Start: 49189, Stop: 49614, Start Num: 44

Candidate Starts for Phrank15_93:

(Start: 44 @49189 has 11 MA's), (48, 49201), (55, 49216), (59, 49246), (61, 49252), (70, 49276), (93, 49366), (98, 49384), (108, 49423), (110, 49435), (139, 49579),

Gene: Phusco_213 Start: 119083, Stop: 119538, Start Num: 47

Candidate Starts for Phusco_213:

(16, 118969), (25, 119032), (Start: 30 @119050 has 2 MA's), (Start: 47 @119083 has 167 MA's), (55, 119101), (77, 119233), (82, 119251), (98, 119311), (119, 119419), (124, 119443), (142, 119506), (144, 119512),

Gene: Pier_216 Start: 121090, Stop: 121545, Start Num: 47

Candidate Starts for Pier_216:

(16, 120976), (25, 121039), (Start: 30 @121057 has 2 MA's), (Start: 47 @121090 has 167 MA's), (55, 121108), (77, 121240), (82, 121258), (98, 121318), (119, 121426), (124, 121450), (142, 121513), (144, 121519),

Gene: Pinkcreek_199 Start: 118466, Stop: 118921, Start Num: 47

Candidate Starts for Pinkcreek_199:

(16, 118352), (25, 118415), (Start: 30 @118433 has 2 MA's), (Start: 47 @118466 has 167 MA's), (55, 118484), (77, 118616), (82, 118634), (98, 118694), (119, 118802), (124, 118826), (142, 118889), (144, 118895),

Gene: Pio_223 Start: 122282, Stop: 122737, Start Num: 47

Candidate Starts for Pio_223:

(16, 122168), (25, 122231), (Start: 30 @122249 has 2 MA's), (Start: 47 @122282 has 167 MA's), (55, 122300), (77, 122432), (82, 122450), (98, 122510), (119, 122618), (124, 122642), (142, 122705), (144, 122711),

Gene: Pivoine_216 Start: 120251, Stop: 120706, Start Num: 47

Candidate Starts for Pivoine_216:

(16, 120137), (25, 120200), (Start: 30 @120218 has 2 MA's), (Start: 47 @120251 has 167 MA's), (55, 120269), (77, 120401), (82, 120419), (98, 120479), (119, 120587), (124, 120611), (142, 120674), (144, 120680),

Gene: Pleione_219 Start: 121026, Stop: 121481, Start Num: 47

Candidate Starts for Pleione_219:

(16, 120912), (25, 120975), (Start: 30 @120993 has 2 MA's), (Start: 47 @121026 has 167 MA's), (55, 121044), (77, 121176), (82, 121194), (98, 121254), (119, 121362), (124, 121386), (142, 121449), (144, 121455),

Gene: Polka_43 Start: 27134, Stop: 27601, Start Num: 45

Candidate Starts for Polka_43:

(24, 27077), (Start: 45 @27134 has 28 MA's), (56, 27170), (69, 27230), (78, 27281), (83, 27296), (85, 27299), (93, 27332), (106, 27410), (108, 27422), (119, 27482), (124, 27506), (138, 27557), (140, 27563), (147, 27584), (148, 27590),

Gene: PurduePete_215 Start: 121254, Stop: 121709, Start Num: 47

Candidate Starts for PurduePete_215:

(16, 121140), (25, 121203), (Start: 30 @121221 has 2 MA's), (Start: 47 @121254 has 167 MA's), (55, 121272), (77, 121404), (82, 121422), (98, 121482), (119, 121590), (124, 121614), (142, 121677), (144, 121683),

Gene: Purky_56 Start: 37685, Stop: 38155, Start Num: 28

Candidate Starts for Purky_56:

(Start: 28 @37685 has 2 MA's), (55, 37736), (62, 37775), (66, 37805), (82, 37883), (97, 37934), (115, 38033), (119, 38045), (120, 38048), (126, 38075), (140, 38126), (142, 38132), (145, 38141),

Gene: QBert_207 Start: 118614, Stop: 119069, Start Num: 47

Candidate Starts for QBert_207:

(16, 118500), (25, 118563), (Start: 30 @118581 has 2 MA's), (Start: 47 @118614 has 167 MA's), (55, 118632), (77, 118764), (82, 118782), (98, 118842), (119, 118950), (124, 118974), (142, 119037), (144, 119043),

Gene: Quasimodo_217 Start: 119884, Stop: 120339, Start Num: 47

Candidate Starts for Quasimodo_217:

(16, 119770), (25, 119833), (Start: 30 @119851 has 2 MA's), (Start: 47 @119884 has 167 MA's), (55, 119902), (77, 120034), (82, 120052), (98, 120112), (119, 120220), (124, 120244), (142, 120307), (144, 120313),

Gene: Rabbitrun_79 Start: 48496, Stop: 48996, Start Num: 42

Candidate Starts for Rabbitrun_79:

(37, 48490), (Start: 42 @48496 has 4 MA's), (53, 48505), (55, 48511), (64, 48553), (74, 48598), (78, 48625), (92, 48667), (97, 48688), (98, 48691), (101, 48709), (123, 48820), (124, 48823), (126, 48829), (128, 48835), (129, 48838), (142, 48886), (154, 48964),

Gene: Rabinovish_208 Start: 120159, Stop: 120614, Start Num: 47

Candidate Starts for Rabinovish_208:

(16, 120045), (25, 120108), (Start: 30 @120126 has 2 MA's), (Start: 47 @120159 has 167 MA's), (55, 120177), (77, 120309), (82, 120327), (98, 120387), (119, 120495), (124, 120519), (142, 120582), (144, 120588),

Gene: RadFad_91 Start: 48709, Stop: 49134, Start Num: 44

Candidate Starts for RadFad_91:

(27, 48679), (Start: 44 @48709 has 11 MA's), (48, 48721), (55, 48736), (59, 48766), (61, 48772), (70, 48796), (80, 48844), (93, 48886), (110, 48955), (139, 49099),

Gene: Rahel_216 Start: 119986, Stop: 120441, Start Num: 47

Candidate Starts for Rahel_216:

(16, 119872), (25, 119935), (Start: 30 @119953 has 2 MA's), (Start: 47 @119986 has 167 MA's), (55, 120004), (77, 120136), (82, 120154), (98, 120214), (119, 120322), (124, 120346), (142, 120409), (144, 120415),

Gene: Raphaella_84 Start: 47326, Stop: 47757, Start Num: 44

Candidate Starts for Raphaella_84:

(27, 47296), (Start: 44 @47326 has 11 MA's), (48, 47338), (55, 47353), (59, 47383), (61, 47389), (70, 47413), (80, 47461), (110, 47572), (139, 47716),

Gene: Raqqa_86 Start: 48107, Stop: 48511, Start Num: 46

Candidate Starts for Raqqa_86:

(9, 47966), (Start: 46 @48107 has 7 MA's), (61, 48164), (68, 48182), (70, 48188), (93, 48278), (98, 48296), (115, 48380), (131, 48431), (139, 48476),

Gene: RedFox_45 Start: 28437, Stop: 28910, Start Num: 45

Candidate Starts for RedFox_45:

(Start: 45 @28437 has 28 MA's), (56, 28473), (72, 28554), (75, 28578), (93, 28638), (98, 28656), (113, 28764), (115, 28776), (140, 28872),

Gene: Renna12_44 Start: 28294, Stop: 28767, Start Num: 45

Candidate Starts for Renna12_44:

(Start: 45 @28294 has 28 MA's), (56, 28330), (72, 28411), (75, 28435), (93, 28495), (98, 28513), (110, 28600), (113, 28621), (115, 28633), (140, 28729),

Gene: Richie_89 Start: 49559, Stop: 49984, Start Num: 44

Candidate Starts for Richie_89:

(27, 49529), (Start: 44 @49559 has 11 MA's), (48, 49571), (55, 49586), (59, 49616), (61, 49622), (70, 49646), (93, 49736), (139, 49949),

Gene: Rizal_207 Start: 118504, Stop: 118959, Start Num: 47

Candidate Starts for Rizal_207:

(16, 118390), (25, 118453), (Start: 30 @118471 has 2 MA's), (Start: 47 @118504 has 167 MA's), (55, 118522), (77, 118654), (82, 118672), (98, 118732), (119, 118840), (124, 118864), (142, 118927), (144, 118933),

Gene: RoMag_210 Start: 120297, Stop: 120752, Start Num: 47

Candidate Starts for RoMag_210:

(16, 120183), (25, 120246), (Start: 30 @120264 has 2 MA's), (Start: 47 @120297 has 167 MA's), (55, 120315), (77, 120447), (82, 120465), (98, 120525), (119, 120633), (124, 120657), (142, 120720), (144, 120726),

Gene: Ronan_211 Start: 118689, Stop: 119144, Start Num: 47

Candidate Starts for Ronan_211:

(16, 118575), (25, 118638), (Start: 30 @118656 has 2 MA's), (Start: 47 @118689 has 167 MA's), (55, 118707), (77, 118839), (82, 118857), (98, 118917), (119, 119025), (124, 119049), (142, 119112), (144, 119118),

Gene: Roots515_217 Start: 121805, Stop: 122260, Start Num: 47

Candidate Starts for Roots515_217:

(16, 121691), (25, 121754), (Start: 30 @121772 has 2 MA's), (Start: 47 @121805 has 167 MA's), (55, 121823), (77, 121955), (82, 121973), (98, 122033), (119, 122141), (124, 122165), (142, 122228), (144,

122234),

Gene: Ruchi_41 Start: 28118, Stop: 28588, Start Num: 45

Candidate Starts for Ruchi_41:

(Start: 45 @28118 has 28 MA's), (56, 28154), (57, 28160), (75, 28256), (88, 28295), (93, 28316), (98, 28334), (102, 28370), (119, 28469), (124, 28493), (130, 28511), (142, 28556), (148, 28577),

Gene: Sakai_82 Start: 47520, Stop: 47945, Start Num: 44

Candidate Starts for Sakai_82:

(Start: 44 @47520 has 11 MA's), (48, 47532), (55, 47547), (59, 47577), (61, 47583), (111, 47775), (113, 47787), (139, 47910),

Gene: Salacia_215 Start: 120389, Stop: 120844, Start Num: 47

Candidate Starts for Salacia_215:

(16, 120275), (25, 120338), (Start: 30 @120356 has 2 MA's), (Start: 47 @120389 has 167 MA's), (55, 120407), (77, 120539), (82, 120557), (98, 120617), (119, 120725), (124, 120749), (142, 120812), (144, 120818),

Gene: Sarge_59 Start: 33281, Stop: 33694, Start Num: 45

Candidate Starts for Sarge_59:

(35, 33269), (Start: 45 @33281 has 28 MA's), (71, 33377), (94, 33467), (135, 33653),

Gene: Sauce_211 Start: 119212, Stop: 119667, Start Num: 47

Candidate Starts for Sauce_211:

(1, 118693), (16, 119098), (25, 119161), (Start: 30 @119179 has 2 MA's), (Start: 47 @119212 has 167 MA's), (55, 119230), (77, 119362), (82, 119380), (98, 119440), (119, 119548), (124, 119572), (142, 119635), (144, 119641),

Gene: ScottMcG_209 Start: 119282, Stop: 119737, Start Num: 47

Candidate Starts for ScottMcG_209:

(16, 119168), (25, 119231), (Start: 30 @119249 has 2 MA's), (Start: 47 @119282 has 167 MA's), (55, 119300), (77, 119432), (82, 119450), (98, 119510), (119, 119618), (124, 119642), (142, 119705), (144, 119711),

Gene: Seahorse_92 Start: 52725, Stop: 53156, Start Num: 44

Candidate Starts for Seahorse_92:

(13, 52620), (Start: 44 @52725 has 11 MA's), (48, 52737), (55, 52752), (59, 52782), (61, 52788), (70, 52812), (139, 53115),

Gene: Sebata_216 Start: 120719, Stop: 121174, Start Num: 47

Candidate Starts for Sebata_216:

(16, 120605), (25, 120668), (Start: 30 @120686 has 2 MA's), (Start: 47 @120719 has 167 MA's), (55, 120737), (77, 120869), (82, 120887), (98, 120947), (119, 121055), (124, 121079), (142, 121142), (144, 121148),

Gene: Sejanus_66 Start: 51688, Stop: 52152, Start Num: 28

Candidate Starts for Sejanus_66:

(Start: 28 @51688 has 2 MA's), (55, 51739), (62, 51778), (66, 51808), (82, 51886), (97, 51937), (115, 52036), (119, 52048), (120, 52051), (126, 52078), (140, 52129), (145, 52144),

Gene: Sephiroth_83 Start: 50078, Stop: 50476, Start Num: 46

Candidate Starts for Sephiroth_83:

(Start: 46 @50078 has 7 MA's), (53, 50090), (55, 50096), (69, 50150), (79, 50204), (87, 50231), (98, 50267), (101, 50285), (110, 50327), (111, 50336), (113, 50348), (138, 50447),

Gene: Shaqnato_206 Start: 119420, Stop: 119875, Start Num: 47

Candidate Starts for Shaqnato_206:

(16, 119306), (25, 119369), (Start: 30 @119387 has 2 MA's), (Start: 47 @119420 has 167 MA's), (55, 119438), (77, 119570), (82, 119588), (98, 119648), (119, 119756), (124, 119780), (142, 119843), (144, 119849),

Gene: Shelob_216 Start: 122160, Stop: 122615, Start Num: 47

Candidate Starts for Shelob_216:

(16, 122046), (25, 122109), (Start: 30 @122127 has 2 MA's), (Start: 47 @122160 has 167 MA's), (55, 122178), (77, 122310), (82, 122328), (98, 122388), (119, 122496), (124, 122520), (142, 122583), (144, 122589),

Gene: ShiaLabeouf_212 Start: 119194, Stop: 119649, Start Num: 47

Candidate Starts for ShiaLabeouf_212:

(16, 119080), (25, 119143), (Start: 30 @119161 has 2 MA's), (Start: 47 @119194 has 167 MA's), (55, 119212), (77, 119344), (82, 119362), (98, 119422), (119, 119530), (124, 119554), (142, 119617), (144, 119623),

Gene: Shifa_192 Start: 118778, Stop: 119233, Start Num: 47

Candidate Starts for Shifa_192:

(16, 118664), (25, 118727), (Start: 30 @118745 has 2 MA's), (Start: 47 @118778 has 167 MA's), (55, 118796), (77, 118928), (82, 118946), (98, 119006), (119, 119114), (124, 119138), (142, 119201), (144, 119207),

Gene: Shnickers_213 Start: 119258, Stop: 119713, Start Num: 47

Candidate Starts for Shnickers_213:

(16, 119144), (25, 119207), (Start: 30 @119225 has 2 MA's), (Start: 47 @119258 has 167 MA's), (55, 119276), (77, 119408), (82, 119426), (98, 119486), (119, 119594), (124, 119618), (142, 119681), (144, 119687),

Gene: Shoya_62 Start: 35352, Stop: 35765, Start Num: 45

Candidate Starts for Shoya_62:

(Start: 21 @35286 has 1 MA's), (Start: 45 @35352 has 28 MA's), (71, 35448), (94, 35538), (124, 35688),

Gene: Shrimp_217 Start: 121315, Stop: 121770, Start Num: 47

Candidate Starts for Shrimp_217:

(16, 121201), (25, 121264), (Start: 30 @121282 has 2 MA's), (Start: 47 @121315 has 167 MA's), (55, 121333), (77, 121465), (82, 121483), (98, 121543), (119, 121651), (124, 121675), (142, 121738), (144, 121744),

Gene: SilverDipper_219 Start: 120807, Stop: 121262, Start Num: 47

Candidate Starts for SilverDipper_219:

(16, 120693), (25, 120756), (Start: 30 @120774 has 2 MA's), (Start: 47 @120807 has 167 MA's), (55, 120825), (77, 120957), (82, 120975), (98, 121035), (119, 121143), (124, 121167), (142, 121230), (144, 121236),

Gene: SmallFry_215 Start: 119352, Stop: 119807, Start Num: 47

Candidate Starts for SmallFry_215:

(16, 119238), (25, 119301), (Start: 30 @119319 has 2 MA's), (Start: 47 @119352 has 167 MA's), (55, 119370), (77, 119502), (82, 119520), (98, 119580), (119, 119688), (124, 119712), (142, 119775), (144, 119781),

Gene: Sonali_52 Start: 41017, Stop: 41565, Start Num: 22

Candidate Starts for Sonali_52:

(Start: 22 @41017 has 1 MA's), (32, 41059), (69, 41170), (73, 41191), (92, 41260), (124, 41446),

Gene: Spec_210 Start: 119543, Stop: 119998, Start Num: 47

Candidate Starts for Spec_210:

(16, 119429), (20, 119459), (25, 119492), (Start: 30 @119510 has 2 MA's), (Start: 47 @119543 has 167 MA's), (55, 119561), (77, 119693), (82, 119711), (98, 119771), (119, 119879), (124, 119903), (142, 119966), (144, 119972),

Gene: Specks_219 Start: 120668, Stop: 121123, Start Num: 47

Candidate Starts for Specks_219:

(16, 120554), (25, 120617), (Start: 30 @120635 has 2 MA's), (Start: 47 @120668 has 167 MA's), (55, 120686), (77, 120818), (82, 120836), (98, 120896), (119, 121004), (124, 121028), (142, 121091), (144, 121097),

Gene: Splinter_57 Start: 38151, Stop: 38588, Start Num: 29

Candidate Starts for Splinter_57:

(Start: 29 @38151 has 5 MA's), (36, 38160), (Start: 38 @38163 has 1 MA's), (55, 38187), (69, 38241), (73, 38262), (92, 38343), (98, 38367), (107, 38412),

Gene: Sprinklers_213 Start: 119910, Stop: 120365, Start Num: 47

Candidate Starts for Sprinklers_213:

(16, 119796), (25, 119859), (Start: 30 @119877 has 2 MA's), (Start: 47 @119910 has 167 MA's), (55, 119928), (77, 120060), (82, 120078), (98, 120138), (119, 120246), (124, 120270), (142, 120333), (144, 120339),

Gene: Spud_209 Start: 119622, Stop: 120077, Start Num: 47

Candidate Starts for Spud_209:

(16, 119508), (25, 119571), (Start: 30 @119589 has 2 MA's), (Start: 47 @119622 has 167 MA's), (55, 119640), (77, 119772), (82, 119790), (98, 119850), (119, 119958), (124, 119982), (142, 120045), (144, 120051),

Gene: Squiddly_91 Start: 53227, Stop: 53721, Start Num: 42

Candidate Starts for Squiddly_91:

(Start: 42 @53227 has 4 MA's), (65, 53281), (92, 53386), (97, 53407), (98, 53410), (107, 53455), (118, 53512), (123, 53536), (124, 53539), (126, 53545), (127, 53548), (142, 53602), (152, 53650),

Gene: SrishMeg2525_212 Start: 120786, Stop: 121241, Start Num: 47

Candidate Starts for SrishMeg2525_212:

(16, 120672), (25, 120735), (Start: 30 @120753 has 2 MA's), (Start: 47 @120786 has 167 MA's), (55, 120804), (77, 120936), (82, 120954), (98, 121014), (119, 121122), (124, 121146), (142, 121209), (144, 121215),

Gene: StephanieG_211 Start: 120820, Stop: 121275, Start Num: 47

Candidate Starts for StephanieG_211:

(16, 120706), (25, 120769), (Start: 30 @120787 has 2 MA's), (Start: 47 @120820 has 167 MA's), (55, 120838), (77, 120970), (82, 120988), (98, 121048), (119, 121156), (124, 121180), (142, 121243), (144, 121249),

Gene: Stubby_199 Start: 118669, Stop: 119124, Start Num: 47

Candidate Starts for Stubby_199:

(16, 118555), (25, 118618), (Start: 30 @118636 has 2 MA's), (Start: 47 @118669 has 167 MA's), (55, 118687), (77, 118819), (82, 118837), (98, 118897), (119, 119005), (124, 119029), (142, 119092), (144, 119098),

Gene: StubbySaigey_220 Start: 120341, Stop: 120796, Start Num: 47

Candidate Starts for StubbySaigey_220:

(16, 120227), (25, 120290), (Start: 30 @120308 has 2 MA's), (Start: 47 @120341 has 167 MA's), (55, 120359), (77, 120491), (82, 120509), (98, 120569), (119, 120677), (124, 120701), (142, 120764), (144, 120770),

Gene: Syleon_86 Start: 50016, Stop: 50414, Start Num: 46

Candidate Starts for Syleon_86:

(Start: 46 @50016 has 7 MA's), (53, 50028), (55, 50034), (69, 50088), (79, 50142), (87, 50169), (98, 50205), (101, 50223), (110, 50265), (111, 50274), (113, 50286), (138, 50385),

Gene: TZGordon_58 Start: 37043, Stop: 37483, Start Num: 29

Candidate Starts for TZGordon_58:

(Start: 29 @37043 has 5 MA's), (41, 37058), (55, 37082), (69, 37136), (92, 37238), (98, 37262), (107, 37307),

Gene: TaylorSipht_43 Start: 28692, Stop: 29159, Start Num: 45

Candidate Starts for TaylorSipht_43:

(Start: 45 @28692 has 28 MA's), (Start: 49 @28704 has 2 MA's), (56, 28728), (75, 28830), (83, 28854), (93, 28890), (94, 28896), (98, 28908), (102, 28944), (105, 28968), (119, 29040), (124, 29064), (130, 29082), (134, 29097), (148, 29148),

Gene: Teardrop_212 Start: 118854, Stop: 119309, Start Num: 47

Candidate Starts for Teardrop_212:

(16, 118740), (25, 118803), (Start: 30 @118821 has 2 MA's), (Start: 47 @118854 has 167 MA's), (55, 118872), (77, 119004), (82, 119022), (98, 119082), (119, 119190), (124, 119214), (142, 119277), (144, 119283),

Gene: Teng_45 Start: 25920, Stop: 25498, Start Num: 39

Candidate Starts for Teng_45:

(19, 25998), (Start: 39 @25920 has 2 MA's), (60, 25854), (75, 25785), (79, 25773), (99, 25722), (100, 25713), (120, 25608),

Gene: Tiff81_86 Start: 46437, Stop: 46868, Start Num: 44

Candidate Starts for Tiff81_86:

(12, 46326), (37, 46428), (Start: 44 @46437 has 11 MA's), (48, 46449), (59, 46494), (61, 46500), (70, 46524), (139, 46827),

Gene: TinyTim_213 Start: 119635, Stop: 120090, Start Num: 47

Candidate Starts for TinyTim_213:

(16, 119521), (25, 119584), (Start: 30 @119602 has 2 MA's), (Start: 47 @119635 has 167 MA's), (55, 119653), (77, 119785), (82, 119803), (98, 119863), (119, 119971), (124, 119995), (142, 120058), (144, 120064),

Gene: Tonenili_237 Start: 125468, Stop: 125920, Start Num: 47

Candidate Starts for Tonenili_237:

(16, 125354), (25, 125417), (Start: 30 @125435 has 2 MA's), (32, 125438), (Start: 47 @125468 has 167 MA's), (55, 125486), (82, 125636), (98, 125696), (119, 125804), (124, 125828),

Gene: Tortoise16_213 Start: 120097, Stop: 120552, Start Num: 47

Candidate Starts for Tortoise16_213:

(16, 119983), (25, 120046), (Start: 30 @120064 has 2 MA's), (Start: 47 @120097 has 167 MA's), (55, 120115), (77, 120247), (82, 120265), (98, 120325), (119, 120433), (124, 120457), (142, 120520), (144, 120526),

Gene: Trax_79 Start: 49196, Stop: 49636, Start Num: 42

Candidate Starts for Trax_79:

(37, 49190), (Start: 42 @49196 has 4 MA's), (53, 49205), (74, 49298), (78, 49325), (92, 49367), (97, 49388), (98, 49391), (101, 49409), (110, 49454), (124, 49523), (126, 49529), (128, 49535), (129, 49538), (132, 49547), (142, 49586),

Gene: Trinitium_211 Start: 118389, Stop: 118844, Start Num: 47

Candidate Starts for Trinitium_211:

(16, 118275), (25, 118338), (Start: 30 @118356 has 2 MA's), (Start: 47 @118389 has 167 MA's), (55, 118407), (77, 118539), (82, 118557), (98, 118617), (119, 118725), (124, 118749), (142, 118812), (144, 118818),

Gene: TurkishDelight_64 Start: 53655, Stop: 54263, Start Num: 14

Candidate Starts for TurkishDelight_64:

(Start: 14 @53655 has 1 MA's), (54, 53787), (69, 53856), (70, 53859), (76, 53901), (94, 53967), (95, 53970), (109, 54060), (110, 54069), (129, 54159), (136, 54189), (138, 54198), (141, 54207),

Gene: Turret_208 Start: 117971, Stop: 118426, Start Num: 47

Candidate Starts for Turret_208:

(16, 117857), (25, 117920), (Start: 30 @117938 has 2 MA's), (Start: 47 @117971 has 167 MA's), (55, 117989), (77, 118121), (82, 118139), (98, 118199), (119, 118307), (124, 118331), (142, 118394), (144, 118400),

Gene: Tyke_213 Start: 121464, Stop: 121919, Start Num: 47

Candidate Starts for Tyke_213:

(16, 121350), (25, 121413), (Start: 30 @121431 has 2 MA's), (Start: 47 @121464 has 167 MA's), (55, 121482), (77, 121614), (82, 121632), (98, 121692), (119, 121800), (124, 121824), (142, 121887), (144, 121893),

Gene: ValleyTerrace_216 Start: 119548, Stop: 120003, Start Num: 47

Candidate Starts for ValleyTerrace_216:

(16, 119434), (25, 119497), (Start: 30 @119515 has 2 MA's), (Start: 47 @119548 has 167 MA's), (55, 119566), (77, 119698), (82, 119716), (98, 119776), (119, 119884), (124, 119908), (142, 119971), (144, 119977),

Gene: Vendetta_57 Start: 38151, Stop: 38588, Start Num: 29

Candidate Starts for Vendetta_57:

(Start: 29 @38151 has 5 MA's), (36, 38160), (Start: 38 @38163 has 1 MA's), (55, 38187), (69, 38241), (73, 38262), (92, 38343), (98, 38367), (107, 38412),

Gene: Vulpecula_41 Start: 27795, Stop: 28265, Start Num: 45

Candidate Starts for Vulpecula_41:

(Start: 45 @27795 has 28 MA's), (56, 27831), (57, 27837), (75, 27933), (81, 27954), (88, 27972), (93, 27993), (98, 28011), (102, 28047), (119, 28146), (124, 28170), (130, 28188), (142, 28233), (148,

28254),

Gene: Wally_213 Start: 119532, Stop: 119987, Start Num: 47

Candidate Starts for Wally_213:

(16, 119418), (25, 119481), (Start: 30 @119499 has 2 MA's), (Start: 47 @119532 has 167 MA's), (55, 119550), (77, 119682), (82, 119700), (98, 119760), (119, 119868), (124, 119892), (142, 119955), (144, 119961),

Gene: Willis_216 Start: 120446, Stop: 120901, Start Num: 47

Candidate Starts for Willis_216:

(16, 120332), (25, 120395), (Start: 30 @120413 has 2 MA's), (Start: 47 @120446 has 167 MA's), (55, 120464), (77, 120596), (82, 120614), (98, 120674), (119, 120782), (124, 120806), (142, 120869), (144, 120875),

Gene: Xavia_55 Start: 40820, Stop: 41251, Start Num: 30

Candidate Starts for Xavia_55:

(11, 40712), (Start: 30 @40820 has 2 MA's), (50, 40856), (52, 40859), (82, 40988), (86, 41003), (93, 41024), (110, 41102), (118, 41144), (123, 41168), (127, 41180), (138, 41222),

Gene: Yassified_212 Start: 119896, Stop: 120351, Start Num: 47

Candidate Starts for Yassified_212:

(1, 119377), (16, 119782), (25, 119845), (Start: 30 @119863 has 2 MA's), (Start: 47 @119896 has 167 MA's), (55, 119914), (77, 120046), (82, 120064), (98, 120124), (119, 120232), (124, 120256), (142, 120319), (144, 120325),

Gene: YemiJoy2021_216 Start: 121202, Stop: 121657, Start Num: 47

Candidate Starts for YemiJoy2021_216:

(16, 121088), (25, 121151), (Start: 30 @121169 has 2 MA's), (Start: 47 @121202 has 167 MA's), (55, 121220), (77, 121352), (82, 121370), (98, 121430), (119, 121538), (124, 121562), (142, 121625), (144, 121631),

Gene: YoungHarleezy_85 Start: 48839, Stop: 49270, Start Num: 44

Candidate Starts for YoungHarleezy_85:

(27, 48809), (Start: 44 @48839 has 11 MA's), (48, 48851), (55, 48866), (59, 48896), (61, 48902), (70, 48926), (139, 49229),

Gene: YoungMoneyMata_214 Start: 120016, Stop: 120471, Start Num: 47

Candidate Starts for YoungMoneyMata_214:

(16, 119902), (25, 119965), (Start: 30 @119983 has 2 MA's), (Start: 47 @120016 has 167 MA's), (55, 120034), (77, 120166), (82, 120184), (98, 120244), (119, 120352), (124, 120376), (142, 120439), (144, 120445),

Gene: Yucca_215 Start: 121194, Stop: 121649, Start Num: 47

Candidate Starts for Yucca_215:

(16, 121080), (25, 121143), (Start: 30 @121161 has 2 MA's), (Start: 47 @121194 has 167 MA's), (55, 121212), (77, 121344), (82, 121362), (98, 121422), (119, 121530), (124, 121554), (142, 121617), (144, 121623),

Gene: Zalkecks_214 Start: 120275, Stop: 120730, Start Num: 47

Candidate Starts for Zalkecks_214:

(16, 120161), (25, 120224), (Start: 30 @120242 has 2 MA's), (Start: 47 @120275 has 167 MA's), (55, 120293), (77, 120425), (82, 120443), (98, 120503), (119, 120611), (124, 120635), (142, 120698), (144, 120704),

Gene: Zeenon_217 Start: 120846, Stop: 121301, Start Num: 47

Candidate Starts for Zeenon_217:

(16, 120732), (25, 120795), (Start: 30 @120813 has 2 MA's), (Start: 47 @120846 has 167 MA's), (55, 120864), (77, 120996), (82, 121014), (98, 121074), (119, 121182), (124, 121206), (142, 121269), (144, 121275),

Gene: Zucker_84 Start: 49086, Stop: 49490, Start Num: 46

Candidate Starts for Zucker_84:

(2, 48822), (4, 48828), (5, 48840), (15, 48981), (Start: 46 @49086 has 7 MA's), (59, 49137), (61, 49143), (68, 49161), (70, 49167), (93, 49257), (98, 49275), (115, 49359), (131, 49410), (139, 49455),

Gene: ZygoTaiga_212 Start: 121466, Stop: 121921, Start Num: 47

Candidate Starts for ZygoTaiga_212:

(16, 121352), (25, 121415), (Start: 30 @121433 has 2 MA's), (Start: 47 @121466 has 167 MA's), (55, 121484), (77, 121616), (82, 121634), (98, 121694), (119, 121802), (124, 121826), (142, 121889), (144, 121895),