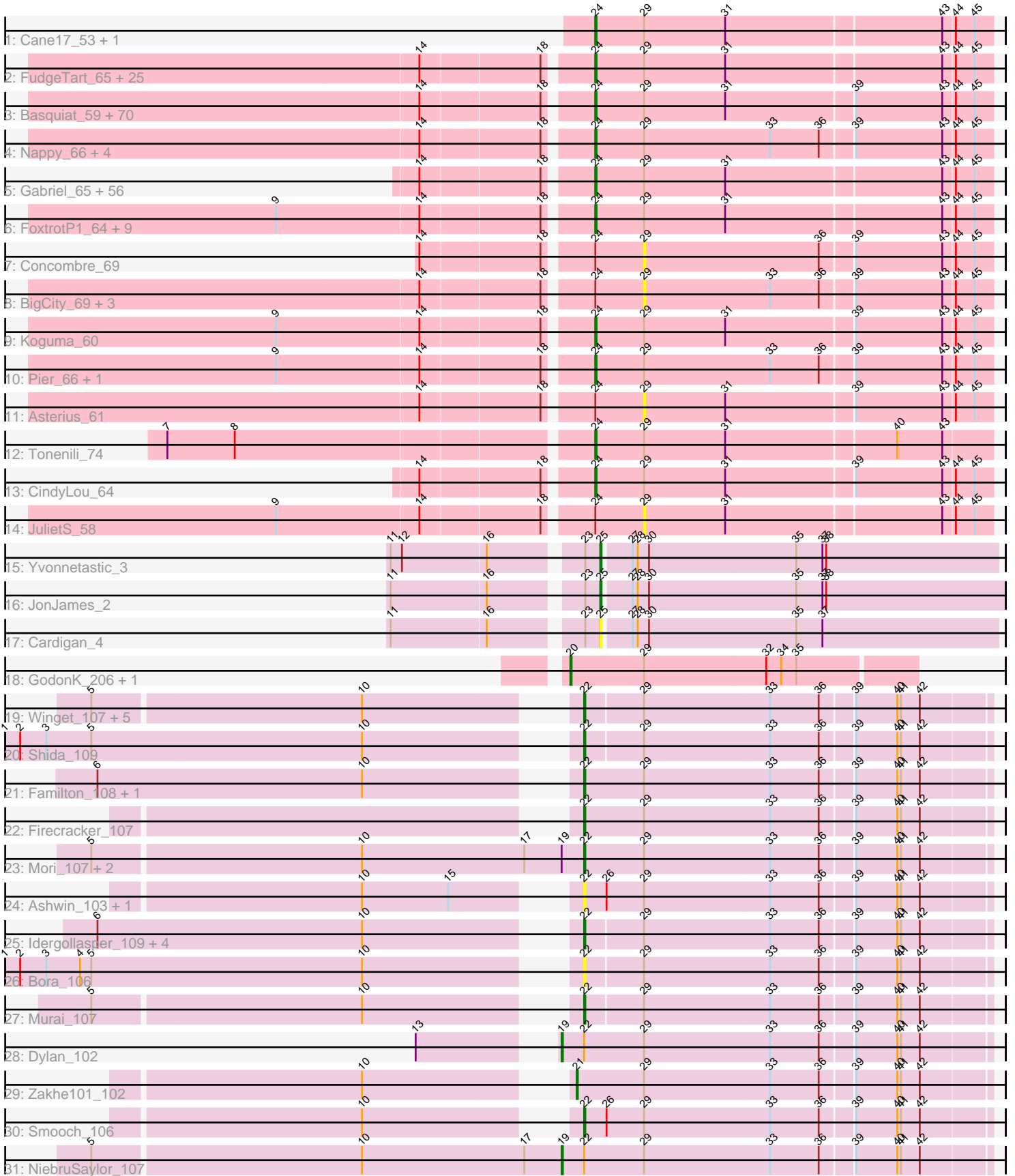


Pham 163344



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 163344 Report

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

Pham number 163344 has 214 members, 23 are drafts.

Phages represented in each track:

- Track 1 : Cane17_53, Blubba_53
- Track 2 : FudgeTart_65, Trinitium_59, HyRo_59, MoMoMixon_64, Stubby_59, Sebata_66, EasyJones_66, InterFolia_72, DirtMonster_60, Turret_58, Mangeria_67, Alice_58, LinStu_65, Issimir_63, Cactojaque_58, Pinkcreek_56, Kboogie_64, Colt_55, RoMag_58, EmToTheThree_67, Astraea_65, ChickenPhender_59, Blackbrain_58, ChaylaJr_59, Dietrick_57, JustHall_59
- Track 3 : Basquiat_59, Megamind_63, Daffodil_66, Bipolarisk_63, Salacia_66, Kamryn_63, Delilah_64, BadAgartude_63, Roots515_63, Willis_64, LolaVinca_67, Shaq nato_58, DrPhinkDaddy_63, Iota_58, NoodleTree_64, Erdmann_65, Fludd_63, Flabslab_60, Naval22_70, Cali_61, Lukilu_57, McWolfish_62, LRRHood_60, Gizmo_66, Caravan_60, MikeLiesIn_64, Wally_62, Grungle_55, Napoleon13_61, Ewok_64, Mikro_62, Maby2021_64, Shelob_66, ZygoTaiga_64, Izajani_65, Pleione_66, Ava3_65, Jessibeth14_62, Chargie21_59, Delylah_65, Rizal_62, Zeenon_66, NedWong_65, BeanWater_57, Zalkecks_65, StubbySaigey_63, CharlieB_61, Yucca_64, NuevoMundo_69, SrishMeg2525_63, PurduePete_63, FrayBell_70, Lee7_62, LordLeafolot_69, ET08_55, Spud_64, Janiyra_65, TinyTim_64, Khaleesi_63, Shrimp_64, Bonray_64, Norm_64, Ronan_58, Catera_62, Sprinklers_60, ParkTD_63, Halldule_58, Loanshark_64, YemiJoy2021_64, Bread_64, Phox_62
- Track 4 : Nappy_66, Dandelion_69, I3_66, IkeLoa_58, Bigswole_70
- Track 5 : Gabriel_65, Littleton_63, Guwapp_62, Breeniome_65, Derek_64, Chomp_61, ValleyTerrace_63, Momo_62, YoungMoneyMata_63, Quasimodo_63, EmmaElysia_62, Jemmno_63, Jedediah_64, BananaFence_65, Jaygup_63, SilverDipper_64, Audrick_65, Essence_62, JPickles_61, BackyardAgain_61, Pio_68, Naija_62, DTDevon_64, Phlegm_65, Ghost_63, McGee_62, Babyland_62, Teardrop_63, Amataga_63, Tortoise16_61, Adlitam_63, Capablanca_65, Shnickers_63, Atlantean_62, Patter_63, Rahel_64, LifeSavor_63, Matsumoto_62, Drazdys_63, ArcherS7_63, Pivoine_62, InigoMontoya_64, Spec_61, Ngannou_58, Specks_69, Bangla1971_64, SmallFry_63, Phusco_63, ShiaLabeouf_63, Ading_63, Burrough_64, Latch_63, Melpomini_59, Darko_63, Gamgam_63, Tyke_65, Bxz1_64
- Track 6 : FoxtrotP1_64, Nidhogg_64, ErnieJ_63, StephanieG_64, Yassified_61, Shifa_57, Morizzled23_66, QBert_58, Rabinovish_63, Sauce_65
- Track 7 : Concombre_69
- Track 8 : BigCity_69, Grasshills_69, EggyFarm_69, JayJay_67
- Track 9 : Koguma_60
- Track 10 : Pier_66, ScottMcG_62
- Track 11 : Asterius_61

- Track 12 : Tonenili_74
- Track 13 : CindyLou_64
- Track 14 : JulietS_58
- Track 15 : Yvonnetastic_3
- Track 16 : JonJames_2
- Track 17 : Cardigan_4
- Track 18 : GodonK_206, Phendrix_194
- Track 19 : Winget_107, MadKillah_110, Schuy_104, Catdawg_108, Alkhayr_103, FoulBall_103
- Track 20 : Shida_109
- Track 21 : Familton_108, Ryadel_111
- Track 22 : Firecracker_107
- Track 23 : Mori_107, Vorrps_107, Krili_109
- Track 24 : Ashwin_103, Wildflower_101
- Track 25 : Idergollasper_109, TelAviv_104, Blessica_105, SchoolBus_106, JangDynasty_103
- Track 26 : Bora_106
- Track 27 : Murai_107
- Track 28 : Dylan_102
- Track 29 : Zakhe101_102
- Track 30 : Smooch_106
- Track 31 : NiebruSaylor_107

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

The start number called the most often in the published annotations is 24, it was called in 167 of the 191 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Ading_63, Adlitam_63, Alice_58, Amataga_63, ArcherS7_63, Astraea_65, Atlantean_62, Audrick_65, Ava3_65, Babyland_62, BackyardAgain_61, BadAgartude_63, BananaFence_65, Bangla1971_64, Basquiat_59, BeanWater_57, Bigswole_70, Bipolarisk_63, Blackbrain_58, Blubba_53, Bonray_64, Bread_64, Breeniome_65, Burrough_64, Bxz1_64, Cactojaque_58, Cali_61, Cane17_53, Capablanca_65, Caravan_60, Catera_62, Chargie21_59, CharlieB_61, ChaylaJr_59, ChickenPhender_59, Chomp_61, CindyLou_64, Colt_55, DTDevon_64, Daffodil_66, Dandelion_69, Darko_63, Delilah_64, Delylah_65, Derek_64, Dietrick_57, DirtMonster_60, DrPhinkDaddy_63, Drazdys_63, ET08_55, EasyJones_66, EmToTheThree_67, EmmaElysia_62, Erdmann_65, ErnieJ_63, Essence_62, Ewok_64, Flabslab_60, Fludd_63, FoxtrotP1_64, FrayBell_70, FudgeTart_65, Gabriel_65, Gamgam_63, Ghost_63, Gizmo_66, Grungle_55, Guwapp_62, Halldule_58, HyRo_59, I3_66, IkeLoa_58, InigoMontoya_64, InterFolia_72, Iota_58, Issimir_63, Izajani_65, JPickles_61, Janiyra_65, Jaygup_63, Jediah_64, Jemmno_63, Jessibeth14_62, JustHall_59, Kamryn_63, Kboogie_64, Khaleesi_63, Koguma_60, LRRHood_60, Latch_63, Lee7_62, LifeSavor_63, LinStu_65, Littleton_63, Loanshark_64, LolaVinca_67, LordLeafolot_69, Lukilu_57, Maby2021_64, Mangeria_67, Matsumoto_62, McGee_62, McWolfish_62, Megamind_63, Melpomini_59, MikeLiesIn_64, Mikro_62, MoMoMixon_64, Momo_62, Morizzled23_66, Naija_62, Napoleon13_61, Nappy_66, Naval22_70, NedWong_65, Ngannou_58, Nidhogg_64, NoodleTree_64, Norm_64, NuevoMundo_69, ParkTD_63,

Patter_63, Phlegm_65, Phox_62, Phusco_63, Pier_66, Pinkcreek_56, Pio_68, Pivoine_62, Pleione_66, PurduePete_63, QBert_58, Quasimodo_63, Rabinovich_63, Rahel_64, Rizal_62, RoMag_58, Ronan_58, Roots515_63, Salacia_66, Sauce_65, ScottMcG_62, Sebata_66, Shaqato_58, Shelob_66, ShiaLabeouf_63, Shifa_57, Shnickers_63, Shrimp_64, SilverDipper_64, SmallFry_63, Spec_61, Specks_69, Sprinklers_60, Spud_64, SrishMeg2525_63, StephanieG_64, StubbySaigey_63, Stubby_59, Teardrop_63, TinyTim_64, Tonerili_74, Tortoise16_61, Trinitium_59, Turret_58, Tyke_65, ValleyTerrace_63, Wally_62, Willis_64, Yassified_61, YemiJoy2021_64, YoungMoneyMata_63, Yucca_64, Zalkecks_65, Zeenon_66, ZygoTaiga_64,

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

- Asterius_61, BigCity_69, Concombre_69, EggyFarm_69, Grasshills_69, JayJay_67, JulietS_58,

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

- Alkhayr_103, Ashwin_103, Blessica_105, Bora_106, Cardigan_4, Catdawg_108, Dylan_102, Familton_108, Firecracker_107, FoulBall_103, GodonK_206, Idergollasper_109, JangDynasty_103, JonJames_2, Krili_109, MadKillah_110, Mori_107, Murai_107, NiebruSaylor_107, Phendrix_194, Ryadel_111, SchoolBus_106, Schuy_104, Shida_109, Smooch_106, TelAviv_104, Vorrrps_107, Wildflower_101, Winget_107, Yvonnetastic_3, Zakhe101_102,

Summary by start number:

Start 19:

- Found in 5 of 214 (2.3%) of genes in pham
- Manual Annotations of this start: 2 of 191
- Called 40.0% of time when present
- Phage (with cluster) where this start called: Dylan_102 (O), NiebruSaylor_107 (O),

Start 20:

- Found in 2 of 214 (0.9%) of genes in pham
- Manual Annotations of this start: 2 of 191
- Called 100.0% of time when present
- Phage (with cluster) where this start called: GodonK_206 (DK), Phendrix_194 (DK),

Start 21:

- Found in 1 of 214 (0.5%) of genes in pham
- Manual Annotations of this start: 1 of 191
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Zakhe101_102 (O),

Start 22:

- Found in 25 of 214 (11.7%) of genes in pham
- Manual Annotations of this start: 17 of 191
- Called 92.0% of time when present
- Phage (with cluster) where this start called: Alkhayr_103 (O), Ashwin_103 (O), Blessica_105 (O), Bora_106 (O), Catdawg_108 (O), Familton_108 (O), Firecracker_107 (O), FoulBall_103 (O), Idergollasper_109 (O), JangDynasty_103 (O), Krili_109 (O), MadKillah_110 (O), Mori_107 (O), Murai_107 (O), Ryadel_111 (O), SchoolBus_106 (O), Schuy_104 (O), Shida_109 (O), Smooch_106 (O), TelAviv_104 (O), Vorrrps_107 (O), Wildflower_101 (O), Winget_107 (O),

Start 24:

- Found in 183 of 214 (85.5%) of genes in pham
- Manual Annotations of this start: 167 of 191
- Called 96.2% of time when present
- Phage (with cluster) where this start called: Ading_63 (C1), Adlitam_63 (C1), Alice_58 (C1), Amataga_63 (C1), ArcherS7_63 (C1), Astraea_65 (C1), Atlantean_62 (C1), Audrick_65 (C1), Ava3_65 (C1), Babyland_62 (C1), BackyardAgain_61 (C1), BadAgartude_63 (C1), BananaFence_65 (C1), Bangla1971_64 (C1), Basquiat_59 (C1), BeanWater_57 (C1), Bigswole_70 (C1), Bipolarisk_63 (C1), Blackbrain_58 (C1), Blubba_53 (C1), Bonray_64 (C1), Bread_64 (C1), Breeniome_65 (C1), Burrough_64 (C1), Bxz1_64 (C1), Cactojaque_58 (C1), Cali_61 (C1), Cane17_53 (C1), Capablanca_65 (C1), Caravan_60 (C1), Catera_62 (C1), Chargie21_59 (C1), CharlieB_61 (C1), ChaylaJr_59 (C1), ChickenPhender_59 (C1), Chomp_61 (C1), CindyLou_64 (C1), Colt_55 (C1), DTDevon_64 (C1), Daffodil_66 (C1), Dandelion_69 (C1), Darko_63 (C1), Delilah_64 (C1), Delylah_65 (C1), Derek_64 (C1), Dietrick_57 (C1), DirtMonster_60 (C1), DrPhinkDaddy_63 (C1), Drazdys_63 (C1), ET08_55 (C1), EasyJones_66 (C1), EmToTheThree_67 (C1), EmmaElysia_62 (C1), Erdmann_65 (C1), ErnieJ_63 (C1), Essence_62 (C1), Ewok_64 (C1), Flabslab_60 (C1), Fludd_63 (C1), FoxtrotP1_64 (C1), FrayBell_70 (C1), FudgeTart_65 (C1), Gabriel_65 (C1), Gamgam_63 (C1), Ghost_63 (C1), Gizmo_66 (C1), Grungle_55 (C1), Guwapp_62 (C1), Halldule_58 (C1), HyRo_59 (C1), I3_66 (C1), IkeLoa_58 (C1), InigoMontoya_64 (C1), InterFolia_72 (C1), Iota_58 (C1), Issimir_63 (C1), Izajani_65 (C1), JPickles_61 (C1), Janiyr_65 (C1), Jaygup_63 (C1), Jediah_64 (C1), Jemmno_63 (C1), Jessibeth14_62 (C1), JustHall_59 (C1), Kamryn_63 (C1), Kboogie_64 (C1), Khaleesi_63 (C1), Koguma_60 (C1), LRRHood_60 (C1), Latch_63 (C1), Lee7_62 (C1), LifeSavor_63 (C1), LinStu_65 (C1), Littleton_63 (C1), Loanshark_64 (C1), LolaVince_67 (C1), LordLeafolot_69 (C1), Lukilu_57 (C1), Maby2021_64 (C1), Mangeria_67 (C1), Matsumoto_62 (C1), McGee_62 (C1), McWolfish_62 (C1), Megamind_63 (C1), Melpomini_59 (C1), MikeLiesIn_64 (C1), Mikro_62 (C1), MoMoMixon_64 (C1), Momo_62 (C1), Morizzled23_66 (C1), Naija_62 (C1), Napoleon13_61 (C1), Nappy_66 (C1), Naval22_70 (C1), NedWong_65 (C1), Ngannou_58 (C1), Nidhogg_64 (C1), NoodleTree_64 (C1), Norm_64 (C1), NuevoMundo_69 (C1), ParkTD_63 (C1), Patter_63 (C1), Phlegm_65 (C1), Phox_62 (C1), Phusco_63 (C1), Pier_66 (C1), Pinkcreek_56 (C1), Pio_68 (C1), Pivoine_62 (C1), Pleione_66 (C1), PurduePete_63 (C1), QBert_58 (C1), Quasimodo_63 (C1), Rabinovich_63 (C1), Rahel_64 (C1), Rizal_62 (C1), RoMag_58 (C1), Ronan_58 (C1), Roots515_63 (C1), Salacia_66 (C1), Sauce_65 (C1), ScottMcG_62 (C1), Sebata_66 (C1), Shaqato_58 (C1), Shelob_66 (C1), ShiaLabeouf_63 (C1), Shifa_57 (C1), Shnickers_63 (C1), Shrimp_64 (C1), SilverDipper_64 (C1), SmallFry_63 (C1), Spec_61 (C1), Specks_69 (C1), Sprinklers_60 (C1), Spud_64 (C1), SrishMeg2525_63 (C1), StephanieG_64 (C1), StubbySaigey_63 (C1), Stubby_59 (C1), Teardrop_63 (C1), TinyTim_64 (C1), Tonenili_74 (C1), Tortoise16_61 (C1), Trinitium_59 (C1), Turret_58 (C1), Tyke_65 (C1), ValleyTerrace_63 (C1), Wally_62 (C1), Willis_64 (C1), Yassified_61 (C1), YemiJoy2021_64 (C1), YoungMoneyMata_63 (C1), Yucca_64 (C1), Zalkecks_65 (C1), Zeenon_66 (C1), ZygoTaiga_64 (C1),

Start 25:

- Found in 3 of 214 (1.4%) of genes in pham
- Manual Annotations of this start: 2 of 191
- Called 100.0% of time when present

- Phage (with cluster) where this start called: Cardigan_4 (DD), JonJames_2 (DD), Yvonnestic_3 (DD),

Start 29:

- Found in 211 of 214 (98.6%) of genes in pham
- No Manual Annotations of this start.
- Called 3.3% of time when present
- Phage (with cluster) where this start called: Asterius_61 (C1), BigCity_69 (C1), Concombre_69 (C1), EggyFarm_69 (C1), Grasshills_69 (C1), JayJay_67 (C1), JulietS_58 (C1),

Summary by clusters:

There are 4 clusters represented in this pham: C1, DD, O, DK,

Info for manual annotations of cluster C1:

- Start number 24 was manually annotated 167 times for cluster C1.

Info for manual annotations of cluster DD:

- Start number 25 was manually annotated 2 times for cluster DD.

Info for manual annotations of cluster DK:

- Start number 20 was manually annotated 2 times for cluster DK.

Info for manual annotations of cluster O:

- Start number 19 was manually annotated 2 times for cluster O.
- Start number 21 was manually annotated 1 time for cluster O.
- Start number 22 was manually annotated 17 times for cluster O.

Gene Information:

Gene: Ading_63 Start: 19644, Stop: 19952, Start Num: 24

Candidate Starts for Ading_63:

(14, 19518), (18, 19611), (Start: 24 @19644 has 167 MA's), (29, 19683), (31, 19746), (43, 19914), (44, 19923), (45, 19938),

Gene: Adlitam_63 Start: 19661, Stop: 19969, Start Num: 24

Candidate Starts for Adlitam_63:

(14, 19535), (18, 19628), (Start: 24 @19661 has 167 MA's), (29, 19700), (31, 19763), (43, 19931), (44, 19940), (45, 19955),

Gene: Alice_58 Start: 19718, Stop: 20026, Start Num: 24

Candidate Starts for Alice_58:

(14, 19592), (18, 19685), (Start: 24 @19718 has 167 MA's), (29, 19757), (31, 19820), (43, 19988), (44, 19997), (45, 20012),

Gene: Alkhayr_103 Start: 64105, Stop: 63794, Start Num: 22

Candidate Starts for Alkhayr_103:

(5, 64450), (10, 64240), (Start: 22 @64105 has 17 MA's), (29, 64060), (33, 63961), (36, 63922), (39, 63898), (40, 63865), (41, 63862), (42, 63847),

Gene: Amataga_63 Start: 19665, Stop: 19973, Start Num: 24

Candidate Starts for Amataga_63:

(14, 19539), (18, 19632), (Start: 24 @19665 has 167 MA's), (29, 19704), (31, 19767), (43, 19935), (44, 19944), (45, 19959),

Gene: ArcherS7_63 Start: 20028, Stop: 20336, Start Num: 24

Candidate Starts for ArcherS7_63:

(14, 19902), (18, 19995), (Start: 24 @20028 has 167 MA's), (29, 20067), (31, 20130), (43, 20298), (44, 20307), (45, 20322),

Gene: Ashwin_103 Start: 63342, Stop: 63028, Start Num: 22

Candidate Starts for Ashwin_103:

(10, 63477), (15, 63408), (Start: 22 @63342 has 17 MA's), (26, 63324), (29, 63294), (33, 63195), (36, 63156), (39, 63132), (40, 63099), (41, 63096), (42, 63081),

Gene: Asterius_61 Start: 20041, Stop: 20310, Start Num: 29

Candidate Starts for Asterius_61:

(14, 19876), (18, 19969), (Start: 24 @20002 has 167 MA's), (29, 20041), (31, 20104), (39, 20203), (43, 20272), (44, 20281), (45, 20296),

Gene: Astraea_65 Start: 21121, Stop: 21429, Start Num: 24

Candidate Starts for Astraea_65:

(14, 20995), (18, 21088), (Start: 24 @21121 has 167 MA's), (29, 21160), (31, 21223), (43, 21391), (44, 21400), (45, 21415),

Gene: Atlantean_62 Start: 19665, Stop: 19973, Start Num: 24

Candidate Starts for Atlantean_62:

(14, 19539), (18, 19632), (Start: 24 @19665 has 167 MA's), (29, 19704), (31, 19767), (43, 19935), (44, 19944), (45, 19959),

Gene: Audrick_65 Start: 19644, Stop: 19952, Start Num: 24

Candidate Starts for Audrick_65:

(14, 19518), (18, 19611), (Start: 24 @19644 has 167 MA's), (29, 19683), (31, 19746), (43, 19914), (44, 19923), (45, 19938),

Gene: Ava3_65 Start: 20719, Stop: 21027, Start Num: 24

Candidate Starts for Ava3_65:

(14, 20593), (18, 20686), (Start: 24 @20719 has 167 MA's), (29, 20758), (31, 20821), (39, 20920), (43, 20989), (44, 20998), (45, 21013),

Gene: Babyland_62 Start: 19103, Stop: 19411, Start Num: 24

Candidate Starts for Babyland_62:

(14, 18977), (18, 19070), (Start: 24 @19103 has 167 MA's), (29, 19142), (31, 19205), (43, 19373), (44, 19382), (45, 19397),

Gene: BackyardAgain_61 Start: 19596, Stop: 19904, Start Num: 24

Candidate Starts for BackyardAgain_61:

(14, 19470), (18, 19563), (Start: 24 @19596 has 167 MA's), (29, 19635), (31, 19698), (43, 19866), (44, 19875), (45, 19890),

Gene: BadAgartude_63 Start: 21462, Stop: 21770, Start Num: 24

Candidate Starts for BadAgartude_63:

(14, 21336), (18, 21429), (Start: 24 @21462 has 167 MA's), (29, 21501), (31, 21564), (39, 21663), (43, 21732), (44, 21741), (45, 21756),

Gene: BananaFence_65 Start: 20603, Stop: 20911, Start Num: 24

Candidate Starts for BananaFence_65:

(14, 20477), (18, 20570), (Start: 24 @20603 has 167 MA's), (29, 20642), (31, 20705), (43, 20873), (44, 20882), (45, 20897),

Gene: Bangla1971_64 Start: 20158, Stop: 20466, Start Num: 24

Candidate Starts for Bangla1971_64:

(14, 20032), (18, 20125), (Start: 24 @20158 has 167 MA's), (29, 20197), (31, 20260), (43, 20428), (44, 20437), (45, 20452),

Gene: Basquiat_59 Start: 19089, Stop: 19397, Start Num: 24

Candidate Starts for Basquiat_59:

(14, 18963), (18, 19056), (Start: 24 @19089 has 167 MA's), (29, 19128), (31, 19191), (39, 19290), (43, 19359), (44, 19368), (45, 19383),

Gene: BeanWater_57 Start: 20011, Stop: 20319, Start Num: 24

Candidate Starts for BeanWater_57:

(14, 19885), (18, 19978), (Start: 24 @20011 has 167 MA's), (29, 20050), (31, 20113), (39, 20212), (43, 20281), (44, 20290), (45, 20305),

Gene: BigCity_69 Start: 21965, Stop: 22234, Start Num: 29

Candidate Starts for BigCity_69:

(14, 21800), (18, 21893), (Start: 24 @21926 has 167 MA's), (29, 21965), (33, 22064), (36, 22103), (39, 22127), (43, 22196), (44, 22205), (45, 22220),

Gene: Bigswole_70 Start: 22960, Stop: 23268, Start Num: 24

Candidate Starts for Bigswole_70:

(14, 22834), (18, 22927), (Start: 24 @22960 has 167 MA's), (29, 22999), (33, 23098), (36, 23137), (39, 23161), (43, 23230), (44, 23239), (45, 23254),

Gene: Bipolarisk_63 Start: 20430, Stop: 20738, Start Num: 24

Candidate Starts for Bipolarisk_63:

(14, 20304), (18, 20397), (Start: 24 @20430 has 167 MA's), (29, 20469), (31, 20532), (39, 20631), (43, 20700), (44, 20709), (45, 20724),

Gene: Blackbrain_58 Start: 18906, Stop: 19214, Start Num: 24

Candidate Starts for Blackbrain_58:

(14, 18780), (18, 18873), (Start: 24 @18906 has 167 MA's), (29, 18945), (31, 19008), (43, 19176), (44, 19185), (45, 19200),

Gene: Blessica_105 Start: 64314, Stop: 64003, Start Num: 22

Candidate Starts for Blessica_105:

(6, 64659), (10, 64449), (Start: 22 @64314 has 17 MA's), (29, 64269), (33, 64170), (36, 64131), (39, 64107), (40, 64074), (41, 64071), (42, 64056),

Gene: Blubba_53 Start: 17829, Stop: 18137, Start Num: 24

Candidate Starts for Blubba_53:

(Start: 24 @17829 has 167 MA's), (29, 17868), (31, 17931), (43, 18099), (44, 18108), (45, 18123),

Gene: Bonray_64 Start: 20707, Stop: 21015, Start Num: 24

Candidate Starts for Bonray_64:

(14, 20581), (18, 20674), (Start: 24 @20707 has 167 MA's), (29, 20746), (31, 20809), (39, 20908), (43, 20977), (44, 20986), (45, 21001),

Gene: Bora_106 Start: 65156, Stop: 64845, Start Num: 22

Candidate Starts for Bora_106:

(1, 65576), (2, 65564), (3, 65543), (4, 65516), (5, 65507), (10, 65291), (Start: 22 @65156 has 17 MA's), (29, 65111), (33, 65012), (36, 64973), (39, 64949), (40, 64916), (41, 64913), (42, 64898),

Gene: Bread_64 Start: 20400, Stop: 20708, Start Num: 24

Candidate Starts for Bread_64:

(14, 20274), (18, 20367), (Start: 24 @20400 has 167 MA's), (29, 20439), (31, 20502), (39, 20601), (43, 20670), (44, 20679), (45, 20694),

Gene: Breeniome_65 Start: 19907, Stop: 20215, Start Num: 24

Candidate Starts for Breeniome_65:

(14, 19781), (18, 19874), (Start: 24 @19907 has 167 MA's), (29, 19946), (31, 20009), (43, 20177), (44, 20186), (45, 20201),

Gene: Burrough_64 Start: 20433, Stop: 20741, Start Num: 24

Candidate Starts for Burrough_64:

(14, 20307), (18, 20400), (Start: 24 @20433 has 167 MA's), (29, 20472), (31, 20535), (43, 20703), (44, 20712), (45, 20727),

Gene: Bxz1_64 Start: 21484, Stop: 21792, Start Num: 24

Candidate Starts for Bxz1_64:

(14, 21358), (18, 21451), (Start: 24 @21484 has 167 MA's), (29, 21523), (31, 21586), (43, 21754), (44, 21763), (45, 21778),

Gene: Cactojaque_58 Start: 19013, Stop: 19321, Start Num: 24

Candidate Starts for Cactojaque_58:

(14, 18887), (18, 18980), (Start: 24 @19013 has 167 MA's), (29, 19052), (31, 19115), (43, 19283), (44, 19292), (45, 19307),

Gene: Cali_61 Start: 21248, Stop: 21556, Start Num: 24

Candidate Starts for Cali_61:

(14, 21122), (18, 21215), (Start: 24 @21248 has 167 MA's), (29, 21287), (31, 21350), (39, 21449), (43, 21518), (44, 21527), (45, 21542),

Gene: Cane17_53 Start: 17547, Stop: 17855, Start Num: 24

Candidate Starts for Cane17_53:

(Start: 24 @17547 has 167 MA's), (29, 17586), (31, 17649), (43, 17817), (44, 17826), (45, 17841),

Gene: Capablanca_65 Start: 20790, Stop: 21098, Start Num: 24

Candidate Starts for Capablanca_65:

(14, 20664), (18, 20757), (Start: 24 @20790 has 167 MA's), (29, 20829), (31, 20892), (43, 21060), (44, 21069), (45, 21084),

Gene: Caravan_60 Start: 19778, Stop: 20086, Start Num: 24

Candidate Starts for Caravan_60:

(14, 19652), (18, 19745), (Start: 24 @19778 has 167 MA's), (29, 19817), (31, 19880), (39, 19979), (43, 20048), (44, 20057), (45, 20072),

Gene: Cardigan_4 Start: 1331, Stop: 1020, Start Num: 25

Candidate Starts for Cardigan_4:

(11, 1484), (16, 1409), (23, 1343), (Start: 25 @1331 has 2 MA's), (27, 1310), (28, 1307), (30, 1298), (35, 1181), (37, 1160),

Gene: Catdawg_108 Start: 65425, Stop: 65114, Start Num: 22

Candidate Starts for Catdawg_108:

(5, 65770), (10, 65560), (Start: 22 @65425 has 17 MA's), (29, 65380), (33, 65281), (36, 65242), (39, 65218), (40, 65185), (41, 65182), (42, 65167),

Gene: Catera_62 Start: 19599, Stop: 19907, Start Num: 24

Candidate Starts for Catera_62:

(14, 19473), (18, 19566), (Start: 24 @19599 has 167 MA's), (29, 19638), (31, 19701), (39, 19800), (43, 19869), (44, 19878), (45, 19893),

Gene: Chargie21_59 Start: 19089, Stop: 19397, Start Num: 24

Candidate Starts for Chargie21_59:

(14, 18963), (18, 19056), (Start: 24 @19089 has 167 MA's), (29, 19128), (31, 19191), (39, 19290), (43, 19359), (44, 19368), (45, 19383),

Gene: CharlieB_61 Start: 19246, Stop: 19554, Start Num: 24

Candidate Starts for CharlieB_61:

(14, 19120), (18, 19213), (Start: 24 @19246 has 167 MA's), (29, 19285), (31, 19348), (39, 19447), (43, 19516), (44, 19525), (45, 19540),

Gene: ChaylaJr_59 Start: 19178, Stop: 19486, Start Num: 24

Candidate Starts for ChaylaJr_59:

(14, 19052), (18, 19145), (Start: 24 @19178 has 167 MA's), (29, 19217), (31, 19280), (43, 19448), (44, 19457), (45, 19472),

Gene: ChickenPhender_59 Start: 19137, Stop: 19445, Start Num: 24

Candidate Starts for ChickenPhender_59:

(14, 19011), (18, 19104), (Start: 24 @19137 has 167 MA's), (29, 19176), (31, 19239), (43, 19407), (44, 19416), (45, 19431),

Gene: Chomp_61 Start: 19665, Stop: 19973, Start Num: 24

Candidate Starts for Chomp_61:

(14, 19539), (18, 19632), (Start: 24 @19665 has 167 MA's), (29, 19704), (31, 19767), (43, 19935), (44, 19944), (45, 19959),

Gene: CindyLou_64 Start: 20190, Stop: 20498, Start Num: 24

Candidate Starts for CindyLou_64:

(14, 20064), (18, 20157), (Start: 24 @20190 has 167 MA's), (29, 20229), (31, 20292), (39, 20391), (43, 20460), (44, 20469), (45, 20484),

Gene: Colt_55 Start: 18533, Stop: 18841, Start Num: 24

Candidate Starts for Colt_55:

(14, 18407), (18, 18500), (Start: 24 @18533 has 167 MA's), (29, 18572), (31, 18635), (43, 18803), (44, 18812), (45, 18827),

Gene: Concombres_69 Start: 22526, Stop: 22795, Start Num: 29

Candidate Starts for Concombres_69:

(14, 22361), (18, 22454), (Start: 24 @22487 has 167 MA's), (29, 22526), (36, 22664), (39, 22688), (43, 22757), (44, 22766), (45, 22781),

Gene: DTDevon_64 Start: 20829, Stop: 21137, Start Num: 24

Candidate Starts for DTDevon_64:

(14, 20703), (18, 20796), (Start: 24 @20829 has 167 MA's), (29, 20868), (31, 20931), (43, 21099), (44, 21108), (45, 21123),

Gene: Daffodil_66 Start: 20719, Stop: 21027, Start Num: 24

Candidate Starts for Daffodil_66:

(14, 20593), (18, 20686), (Start: 24 @20719 has 167 MA's), (29, 20758), (31, 20821), (39, 20920), (43, 20989), (44, 20998), (45, 21013),

Gene: Dandelion_69 Start: 22506, Stop: 22814, Start Num: 24

Candidate Starts for Dandelion_69:

(14, 22380), (18, 22473), (Start: 24 @22506 has 167 MA's), (29, 22545), (33, 22644), (36, 22683), (39, 22707), (43, 22776), (44, 22785), (45, 22800),

Gene: Darko_63 Start: 20572, Stop: 20880, Start Num: 24

Candidate Starts for Darko_63:

(14, 20446), (18, 20539), (Start: 24 @20572 has 167 MA's), (29, 20611), (31, 20674), (43, 20842), (44, 20851), (45, 20866),

Gene: Delilah_64 Start: 20719, Stop: 21027, Start Num: 24

Candidate Starts for Delilah_64:

(14, 20593), (18, 20686), (Start: 24 @20719 has 167 MA's), (29, 20758), (31, 20821), (39, 20920), (43, 20989), (44, 20998), (45, 21013),

Gene: Delylah_65 Start: 20497, Stop: 20805, Start Num: 24

Candidate Starts for Delylah_65:

(14, 20371), (18, 20464), (Start: 24 @20497 has 167 MA's), (29, 20536), (31, 20599), (39, 20698), (43, 20767), (44, 20776), (45, 20791),

Gene: Derek_64 Start: 19996, Stop: 20304, Start Num: 24

Candidate Starts for Derek_64:

(14, 19870), (18, 19963), (Start: 24 @19996 has 167 MA's), (29, 20035), (31, 20098), (43, 20266), (44, 20275), (45, 20290),

Gene: Dietrick_57 Start: 18837, Stop: 19145, Start Num: 24

Candidate Starts for Dietrick_57:

(14, 18711), (18, 18804), (Start: 24 @18837 has 167 MA's), (29, 18876), (31, 18939), (43, 19107), (44, 19116), (45, 19131),

Gene: DirtMonster_60 Start: 20505, Stop: 20813, Start Num: 24

Candidate Starts for DirtMonster_60:

(14, 20379), (18, 20472), (Start: 24 @20505 has 167 MA's), (29, 20544), (31, 20607), (43, 20775), (44, 20784), (45, 20799),

Gene: DrPhinkDaddy_63 Start: 20771, Stop: 21079, Start Num: 24

Candidate Starts for DrPhinkDaddy_63:

(14, 20645), (18, 20738), (Start: 24 @20771 has 167 MA's), (29, 20810), (31, 20873), (39, 20972), (43, 21041), (44, 21050), (45, 21065),

Gene: Drazdys_63 Start: 20502, Stop: 20810, Start Num: 24

Candidate Starts for Drazdys_63:

(14, 20376), (18, 20469), (Start: 24 @20502 has 167 MA's), (29, 20541), (31, 20604), (43, 20772), (44, 20781), (45, 20796),

Gene: Dylan_102 Start: 63094, Stop: 62762, Start Num: 19

Candidate Starts for Dylan_102:

(13, 63178), (Start: 19 @63094 has 2 MA's), (Start: 22 @63076 has 17 MA's), (29, 63028), (33, 62929), (36, 62890), (39, 62866), (40, 62833), (41, 62830), (42, 62815),

Gene: ET08_55 Start: 19114, Stop: 19422, Start Num: 24

Candidate Starts for ET08_55:

(14, 18988), (18, 19081), (Start: 24 @19114 has 167 MA's), (29, 19153), (31, 19216), (39, 19315), (43, 19384), (44, 19393), (45, 19408),

Gene: EasyJones_66 Start: 20664, Stop: 20972, Start Num: 24

Candidate Starts for EasyJones_66:

(14, 20538), (18, 20631), (Start: 24 @20664 has 167 MA's), (29, 20703), (31, 20766), (43, 20934), (44, 20943), (45, 20958),

Gene: EggyFarm_69 Start: 21965, Stop: 22234, Start Num: 29

Candidate Starts for EggyFarm_69:

(14, 21800), (18, 21893), (Start: 24 @21926 has 167 MA's), (29, 21965), (33, 22064), (36, 22103), (39, 22127), (43, 22196), (44, 22205), (45, 22220),

Gene: EmToTheThree_67 Start: 22133, Stop: 22441, Start Num: 24

Candidate Starts for EmToTheThree_67:

(14, 22007), (18, 22100), (Start: 24 @22133 has 167 MA's), (29, 22172), (31, 22235), (43, 22403), (44, 22412), (45, 22427),

Gene: EmmaElysia_62 Start: 19235, Stop: 19543, Start Num: 24

Candidate Starts for EmmaElysia_62:

(14, 19109), (18, 19202), (Start: 24 @19235 has 167 MA's), (29, 19274), (31, 19337), (43, 19505), (44, 19514), (45, 19529),

Gene: Erdmann_65 Start: 20719, Stop: 21027, Start Num: 24

Candidate Starts for Erdmann_65:

(14, 20593), (18, 20686), (Start: 24 @20719 has 167 MA's), (29, 20758), (31, 20821), (39, 20920), (43, 20989), (44, 20998), (45, 21013),

Gene: ErnieJ_63 Start: 20008, Stop: 20316, Start Num: 24

Candidate Starts for ErnieJ_63:

(9, 19771), (14, 19882), (18, 19975), (Start: 24 @20008 has 167 MA's), (29, 20047), (31, 20110), (43, 20278), (44, 20287), (45, 20302),

Gene: Essence_62 Start: 19519, Stop: 19827, Start Num: 24

Candidate Starts for Essence_62:

(14, 19393), (18, 19486), (Start: 24 @19519 has 167 MA's), (29, 19558), (31, 19621), (43, 19789), (44, 19798), (45, 19813),

Gene: Ewok_64 Start: 20722, Stop: 21030, Start Num: 24

Candidate Starts for Ewok_64:

(14, 20596), (18, 20689), (Start: 24 @20722 has 167 MA's), (29, 20761), (31, 20824), (39, 20923), (43, 20992), (44, 21001), (45, 21016),

Gene: Familton_108 Start: 64841, Stop: 64527, Start Num: 22

Candidate Starts for Familton_108:

(6, 65186), (10, 64976), (Start: 22 @64841 has 17 MA's), (29, 64793), (33, 64694), (36, 64655), (39, 64631), (40, 64598), (41, 64595), (42, 64580),

Gene: Firecracker_107 Start: 64710, Stop: 64396, Start Num: 22

Candidate Starts for Firecracker_107:

(Start: 22 @64710 has 17 MA's), (29, 64662), (33, 64563), (36, 64524), (39, 64500), (40, 64467), (41, 64464), (42, 64449),

Gene: Flabslab_60 Start: 19741, Stop: 20049, Start Num: 24

Candidate Starts for Flabslab_60:

(14, 19615), (18, 19708), (Start: 24 @19741 has 167 MA's), (29, 19780), (31, 19843), (39, 19942), (43, 20011), (44, 20020), (45, 20035),

Gene: Fludd_63 Start: 19594, Stop: 19902, Start Num: 24

Candidate Starts for Fludd_63:

(14, 19468), (18, 19561), (Start: 24 @19594 has 167 MA's), (29, 19633), (31, 19696), (39, 19795), (43, 19864), (44, 19873), (45, 19888),

Gene: FoulBall_103 Start: 64388, Stop: 64077, Start Num: 22

Candidate Starts for FoulBall_103:

(5, 64733), (10, 64523), (Start: 22 @64388 has 17 MA's), (29, 64343), (33, 64244), (36, 64205), (39, 64181), (40, 64148), (41, 64145), (42, 64130),

Gene: FoxtrotP1_64 Start: 21047, Stop: 21355, Start Num: 24

Candidate Starts for FoxtrotP1_64:

(9, 20810), (14, 20921), (18, 21014), (Start: 24 @21047 has 167 MA's), (29, 21086), (31, 21149), (43, 21317), (44, 21326), (45, 21341),

Gene: FrayBell_70 Start: 22233, Stop: 22541, Start Num: 24

Candidate Starts for FrayBell_70:

(14, 22107), (18, 22200), (Start: 24 @22233 has 167 MA's), (29, 22272), (31, 22335), (39, 22434), (43, 22503), (44, 22512), (45, 22527),

Gene: FudgeTart_65 Start: 20583, Stop: 20891, Start Num: 24

Candidate Starts for FudgeTart_65:

(14, 20457), (18, 20550), (Start: 24 @20583 has 167 MA's), (29, 20622), (31, 20685), (43, 20853), (44, 20862), (45, 20877),

Gene: Gabriel_65 Start: 19898, Stop: 20206, Start Num: 24

Candidate Starts for Gabriel_65:

(14, 19772), (18, 19865), (Start: 24 @19898 has 167 MA's), (29, 19937), (31, 20000), (43, 20168), (44, 20177), (45, 20192),

Gene: Gamgam_63 Start: 19665, Stop: 19973, Start Num: 24

Candidate Starts for Gamgam_63:

(14, 19539), (18, 19632), (Start: 24 @19665 has 167 MA's), (29, 19704), (31, 19767), (43, 19935), (44, 19944), (45, 19959),

Gene: Ghost_63 Start: 19665, Stop: 19973, Start Num: 24

Candidate Starts for Ghost_63:

(14, 19539), (18, 19632), (Start: 24 @19665 has 167 MA's), (29, 19704), (31, 19767), (43, 19935), (44, 19944), (45, 19959),

Gene: Gizmo_66 Start: 20402, Stop: 20710, Start Num: 24

Candidate Starts for Gizmo_66:

(14, 20276), (18, 20369), (Start: 24 @20402 has 167 MA's), (29, 20441), (31, 20504), (39, 20603), (43, 20672), (44, 20681), (45, 20696),

Gene: GodonK_206 Start: 106262, Stop: 105993, Start Num: 20

Candidate Starts for GodonK_206:

(Start: 20 @106262 has 2 MA's), (29, 106205), (32, 106109), (34, 106097), (35, 106085),

Gene: Grasshills_69 Start: 21965, Stop: 22234, Start Num: 29

Candidate Starts for Grasshills_69:

(14, 21800), (18, 21893), (Start: 24 @21926 has 167 MA's), (29, 21965), (33, 22064), (36, 22103), (39, 22127), (43, 22196), (44, 22205), (45, 22220),

Gene: Grungle_55 Start: 18196, Stop: 18504, Start Num: 24

Candidate Starts for Grungle_55:

(14, 18070), (18, 18163), (Start: 24 @18196 has 167 MA's), (29, 18235), (31, 18298), (39, 18397), (43, 18466), (44, 18475), (45, 18490),

Gene: Guwapp_62 Start: 19760, Stop: 20068, Start Num: 24

Candidate Starts for Guwapp_62:

(14, 19634), (18, 19727), (Start: 24 @19760 has 167 MA's), (29, 19799), (31, 19862), (43, 20030), (44, 20039), (45, 20054),

Gene: Halldule_58 Start: 18773, Stop: 19081, Start Num: 24

Candidate Starts for Halldule_58:

(14, 18647), (18, 18740), (Start: 24 @18773 has 167 MA's), (29, 18812), (31, 18875), (39, 18974), (43, 19043), (44, 19052), (45, 19067),

Gene: HyRo_59 Start: 20126, Stop: 20434, Start Num: 24

Candidate Starts for HyRo_59:

(14, 20000), (18, 20093), (Start: 24 @20126 has 167 MA's), (29, 20165), (31, 20228), (43, 20396), (44, 20405), (45, 20420),

Gene: I3_66 Start: 20338, Stop: 20646, Start Num: 24

Candidate Starts for I3_66:

(14, 20212), (18, 20305), (Start: 24 @20338 has 167 MA's), (29, 20377), (33, 20476), (36, 20515), (39, 20539), (43, 20608), (44, 20617), (45, 20632),

Gene: Idergollasper_109 Start: 65389, Stop: 65078, Start Num: 22

Candidate Starts for Idergollasper_109:

(6, 65734), (10, 65524), (Start: 22 @65389 has 17 MA's), (29, 65344), (33, 65245), (36, 65206), (39, 65182), (40, 65149), (41, 65146), (42, 65131),

Gene: IkeLoa_58 Start: 19404, Stop: 19712, Start Num: 24

Candidate Starts for IkeLoa_58:

(14, 19278), (18, 19371), (Start: 24 @19404 has 167 MA's), (29, 19443), (33, 19542), (36, 19581), (39, 19605), (43, 19674), (44, 19683), (45, 19698),

Gene: InigoMontoya_64 Start: 19626, Stop: 19934, Start Num: 24

Candidate Starts for InigoMontoya_64:

(14, 19500), (18, 19593), (Start: 24 @19626 has 167 MA's), (29, 19665), (31, 19728), (43, 19896), (44, 19905), (45, 19920),

Gene: InterFolia_72 Start: 23171, Stop: 23479, Start Num: 24

Candidate Starts for InterFolia_72:

(14, 23045), (18, 23138), (Start: 24 @23171 has 167 MA's), (29, 23210), (31, 23273), (43, 23441), (44, 23450), (45, 23465),

Gene: Iota_58 Start: 19702, Stop: 20010, Start Num: 24

Candidate Starts for Iota_58:

(14, 19576), (18, 19669), (Start: 24 @19702 has 167 MA's), (29, 19741), (31, 19804), (39, 19903), (43, 19972), (44, 19981), (45, 19996),

Gene: Issimir_63 Start: 20662, Stop: 20970, Start Num: 24

Candidate Starts for Issimir_63:

(14, 20536), (18, 20629), (Start: 24 @20662 has 167 MA's), (29, 20701), (31, 20764), (43, 20932), (44, 20941), (45, 20956),

Gene: Izajani_65 Start: 20735, Stop: 21043, Start Num: 24

Candidate Starts for Izajani_65:

(14, 20609), (18, 20702), (Start: 24 @20735 has 167 MA's), (29, 20774), (31, 20837), (39, 20936), (43, 21005), (44, 21014), (45, 21029),

Gene: JPickles_61 Start: 18859, Stop: 19167, Start Num: 24

Candidate Starts for JPickles_61:

(14, 18733), (18, 18826), (Start: 24 @18859 has 167 MA's), (29, 18898), (31, 18961), (43, 19129), (44, 19138), (45, 19153),

Gene: JangDynasty_103 Start: 63739, Stop: 63428, Start Num: 22

Candidate Starts for JangDynasty_103:

(6, 64084), (10, 63874), (Start: 22 @63739 has 17 MA's), (29, 63694), (33, 63595), (36, 63556), (39, 63532), (40, 63499), (41, 63496), (42, 63481),

Gene: Janiyra_65 Start: 20424, Stop: 20732, Start Num: 24

Candidate Starts for Janiyra_65:

(14, 20298), (18, 20391), (Start: 24 @20424 has 167 MA's), (29, 20463), (31, 20526), (39, 20625), (43, 20694), (44, 20703), (45, 20718),

Gene: JayJay_67 Start: 21254, Stop: 21523, Start Num: 29

Candidate Starts for JayJay_67:

(14, 21089), (18, 21182), (Start: 24 @21215 has 167 MA's), (29, 21254), (33, 21353), (36, 21392), (39, 21416), (43, 21485), (44, 21494), (45, 21509),

Gene: Jaygup_63 Start: 19661, Stop: 19969, Start Num: 24

Candidate Starts for Jaygup_63:

(14, 19535), (18, 19628), (Start: 24 @19661 has 167 MA's), (29, 19700), (31, 19763), (43, 19931), (44, 19940), (45, 19955),

Gene: Jedediah_64 Start: 20162, Stop: 20470, Start Num: 24

Candidate Starts for Jedediah_64:

(14, 20036), (18, 20129), (Start: 24 @20162 has 167 MA's), (29, 20201), (31, 20264), (43, 20432), (44, 20441), (45, 20456),

Gene: Jemmno_63 Start: 19665, Stop: 19973, Start Num: 24

Candidate Starts for Jemmno_63:

(14, 19539), (18, 19632), (Start: 24 @19665 has 167 MA's), (29, 19704), (31, 19767), (43, 19935), (44, 19944), (45, 19959),

Gene: Jessibeth14_62 Start: 20123, Stop: 20431, Start Num: 24

Candidate Starts for Jessibeth14_62:

(14, 19997), (18, 20090), (Start: 24 @20123 has 167 MA's), (29, 20162), (31, 20225), (39, 20324), (43, 20393), (44, 20402), (45, 20417),

Gene: JonJames_2 Start: 1485, Stop: 1168, Start Num: 25

Candidate Starts for JonJames_2:

(11, 1638), (16, 1563), (23, 1497), (Start: 25 @1485 has 2 MA's), (27, 1464), (28, 1461), (30, 1452), (35, 1335), (37, 1314), (38, 1311),

Gene: JulietS_58 Start: 18663, Stop: 18932, Start Num: 29

Candidate Starts for JulietS_58:

(9, 18387), (14, 18498), (18, 18591), (Start: 24 @18624 has 167 MA's), (29, 18663), (31, 18726), (43, 18894), (44, 18903), (45, 18918),

Gene: JustHall_59 Start: 19984, Stop: 20292, Start Num: 24

Candidate Starts for JustHall_59:

(14, 19858), (18, 19951), (Start: 24 @19984 has 167 MA's), (29, 20023), (31, 20086), (43, 20254), (44, 20263), (45, 20278),

Gene: Kamryn_63 Start: 20338, Stop: 20646, Start Num: 24

Candidate Starts for Kamryn_63:

(14, 20212), (18, 20305), (Start: 24 @20338 has 167 MA's), (29, 20377), (31, 20440), (39, 20539), (43, 20608), (44, 20617), (45, 20632),

Gene: Kboogie_64 Start: 19648, Stop: 19956, Start Num: 24

Candidate Starts for Kboogie_64:

(14, 19522), (18, 19615), (Start: 24 @19648 has 167 MA's), (29, 19687), (31, 19750), (43, 19918), (44, 19927), (45, 19942),

Gene: Khaleesi_63 Start: 20466, Stop: 20774, Start Num: 24

Candidate Starts for Khaleesi_63:

(14, 20340), (18, 20433), (Start: 24 @20466 has 167 MA's), (29, 20505), (31, 20568), (39, 20667), (43, 20736), (44, 20745), (45, 20760),

Gene: Koguma_60 Start: 18842, Stop: 19150, Start Num: 24

Candidate Starts for Koguma_60:

(9, 18605), (14, 18716), (18, 18809), (Start: 24 @18842 has 167 MA's), (29, 18881), (31, 18944), (39, 19043), (43, 19112), (44, 19121), (45, 19136),

Gene: Krili_109 Start: 64941, Stop: 64627, Start Num: 22

Candidate Starts for Krili_109:

(5, 65328), (10, 65118), (17, 64989), (Start: 19 @64959 has 2 MA's), (Start: 22 @64941 has 17 MA's), (29, 64893), (33, 64794), (36, 64755), (39, 64731), (40, 64698), (41, 64695), (42, 64680),

Gene: LRRHood_60 Start: 20765, Stop: 21073, Start Num: 24

Candidate Starts for LRRHood_60:

(14, 20639), (18, 20732), (Start: 24 @20765 has 167 MA's), (29, 20804), (31, 20867), (39, 20966), (43, 21035), (44, 21044), (45, 21059),

Gene: Latch_63 Start: 19665, Stop: 19973, Start Num: 24

Candidate Starts for Latch_63:

(14, 19539), (18, 19632), (Start: 24 @19665 has 167 MA's), (29, 19704), (31, 19767), (43, 19935), (44, 19944), (45, 19959),

Gene: Lee7_62 Start: 20397, Stop: 20705, Start Num: 24

Candidate Starts for Lee7_62:

(14, 20271), (18, 20364), (Start: 24 @20397 has 167 MA's), (29, 20436), (31, 20499), (39, 20598), (43, 20667), (44, 20676), (45, 20691),

Gene: LifeSavor_63 Start: 19384, Stop: 19692, Start Num: 24

Candidate Starts for LifeSavor_63:

(14, 19258), (18, 19351), (Start: 24 @19384 has 167 MA's), (29, 19423), (31, 19486), (43, 19654), (44, 19663), (45, 19678),

Gene: LinStu_65 Start: 21472, Stop: 21780, Start Num: 24

Candidate Starts for LinStu_65:

(14, 21346), (18, 21439), (Start: 24 @21472 has 167 MA's), (29, 21511), (31, 21574), (43, 21742), (44, 21751), (45, 21766),

Gene: Littleton_63 Start: 19665, Stop: 19973, Start Num: 24

Candidate Starts for Littleton_63:

(14, 19539), (18, 19632), (Start: 24 @19665 has 167 MA's), (29, 19704), (31, 19767), (43, 19935), (44, 19944), (45, 19959),

Gene: Loanshark_64 Start: 20719, Stop: 21027, Start Num: 24

Candidate Starts for Loanshark_64:

(14, 20593), (18, 20686), (Start: 24 @20719 has 167 MA's), (29, 20758), (31, 20821), (39, 20920), (43, 20989), (44, 20998), (45, 21013),

Gene: LolaVinca_67 Start: 21880, Stop: 22188, Start Num: 24

Candidate Starts for LolaVinca_67:

(14, 21754), (18, 21847), (Start: 24 @21880 has 167 MA's), (29, 21919), (31, 21982), (39, 22081), (43, 22150), (44, 22159), (45, 22174),

Gene: LordLeafolot_69 Start: 22232, Stop: 22540, Start Num: 24

Candidate Starts for LordLeafolot_69:

(14, 22106), (18, 22199), (Start: 24 @22232 has 167 MA's), (29, 22271), (31, 22334), (39, 22433), (43, 22502), (44, 22511), (45, 22526),

Gene: Lukilu_57 Start: 19967, Stop: 20275, Start Num: 24

Candidate Starts for Lukilu_57:

(14, 19841), (18, 19934), (Start: 24 @19967 has 167 MA's), (29, 20006), (31, 20069), (39, 20168), (43, 20237), (44, 20246), (45, 20261),

Gene: Maby2021_64 Start: 20400, Stop: 20708, Start Num: 24

Candidate Starts for Maby2021_64:

(14, 20274), (18, 20367), (Start: 24 @20400 has 167 MA's), (29, 20439), (31, 20502), (39, 20601), (43, 20670), (44, 20679), (45, 20694),

Gene: MadKillah_110 Start: 64460, Stop: 64149, Start Num: 22

Candidate Starts for MadKillah_110:

(5, 64805), (10, 64595), (Start: 22 @64460 has 17 MA's), (29, 64415), (33, 64316), (36, 64277), (39, 64253), (40, 64220), (41, 64217), (42, 64202),

Gene: Mangeria_67 Start: 21743, Stop: 22051, Start Num: 24

Candidate Starts for Mangeria_67:

(14, 21617), (18, 21710), (Start: 24 @21743 has 167 MA's), (29, 21782), (31, 21845), (43, 22013), (44, 22022), (45, 22037),

Gene: Matsumoto_62 Start: 19626, Stop: 19934, Start Num: 24

Candidate Starts for Matsumoto_62:

(14, 19500), (18, 19593), (Start: 24 @19626 has 167 MA's), (29, 19665), (31, 19728), (43, 19896), (44, 19905), (45, 19920),

Gene: McGee_62 Start: 18849, Stop: 19157, Start Num: 24

Candidate Starts for McGee_62:

(14, 18723), (18, 18816), (Start: 24 @18849 has 167 MA's), (29, 18888), (31, 18951), (43, 19119), (44, 19128), (45, 19143),

Gene: McWolfish_62 Start: 20147, Stop: 20455, Start Num: 24

Candidate Starts for McWolfish_62:

(14, 20021), (18, 20114), (Start: 24 @20147 has 167 MA's), (29, 20186), (31, 20249), (39, 20348), (43, 20417), (44, 20426), (45, 20441),

Gene: Megamind_63 Start: 20385, Stop: 20693, Start Num: 24

Candidate Starts for Megamind_63:

(14, 20259), (18, 20352), (Start: 24 @20385 has 167 MA's), (29, 20424), (31, 20487), (39, 20586), (43, 20655), (44, 20664), (45, 20679),

Gene: Melpomini_59 Start: 19076, Stop: 19384, Start Num: 24

Candidate Starts for Melpomini_59:

(14, 18950), (18, 19043), (Start: 24 @19076 has 167 MA's), (29, 19115), (31, 19178), (43, 19346), (44, 19355), (45, 19370),

Gene: MikeLiesIn_64 Start: 20732, Stop: 21040, Start Num: 24

Candidate Starts for MikeLiesIn_64:

(14, 20606), (18, 20699), (Start: 24 @20732 has 167 MA's), (29, 20771), (31, 20834), (39, 20933), (43, 21002), (44, 21011), (45, 21026),

Gene: Mikro_62 Start: 21206, Stop: 21514, Start Num: 24

Candidate Starts for Mikro_62:

(14, 21080), (18, 21173), (Start: 24 @21206 has 167 MA's), (29, 21245), (31, 21308), (39, 21407), (43, 21476), (44, 21485), (45, 21500),

Gene: MoMoMixon_64 Start: 20817, Stop: 21125, Start Num: 24

Candidate Starts for MoMoMixon_64:

(14, 20691), (18, 20784), (Start: 24 @20817 has 167 MA's), (29, 20856), (31, 20919), (43, 21087), (44, 21096), (45, 21111),

Gene: Momo_62 Start: 19665, Stop: 19973, Start Num: 24

Candidate Starts for Momo_62:

(14, 19539), (18, 19632), (Start: 24 @19665 has 167 MA's), (29, 19704), (31, 19767), (43, 19935), (44, 19944), (45, 19959),

Gene: Mori_107 Start: 64966, Stop: 64652, Start Num: 22

Candidate Starts for Mori_107:

(5, 65353), (10, 65143), (17, 65014), (Start: 19 @64984 has 2 MA's), (Start: 22 @64966 has 17 MA's), (29, 64918), (33, 64819), (36, 64780), (39, 64756), (40, 64723), (41, 64720), (42, 64705),

Gene: Morizzled23_66 Start: 20691, Stop: 20999, Start Num: 24

Candidate Starts for Morizzled23_66:

(9, 20454), (14, 20565), (18, 20658), (Start: 24 @20691 has 167 MA's), (29, 20730), (31, 20793), (43, 20961), (44, 20970), (45, 20985),

Gene: Murai_107 Start: 64811, Stop: 64500, Start Num: 22

Candidate Starts for Murai_107:

(5, 65156), (10, 64946), (Start: 22 @64811 has 17 MA's), (29, 64766), (33, 64667), (36, 64628), (39, 64604), (40, 64571), (41, 64568), (42, 64553),

Gene: Naija_62 Start: 19665, Stop: 19973, Start Num: 24

Candidate Starts for Naija_62:

(14, 19539), (18, 19632), (Start: 24 @19665 has 167 MA's), (29, 19704), (31, 19767), (43, 19935), (44, 19944), (45, 19959),

Gene: Napoleon13_61 Start: 19058, Stop: 19366, Start Num: 24

Candidate Starts for Napoleon13_61:

(14, 18932), (18, 19025), (Start: 24 @19058 has 167 MA's), (29, 19097), (31, 19160), (39, 19259), (43, 19328), (44, 19337), (45, 19352),

Gene: Nappy_66 Start: 21020, Stop: 21328, Start Num: 24

Candidate Starts for Nappy_66:

(14, 20894), (18, 20987), (Start: 24 @21020 has 167 MA's), (29, 21059), (33, 21158), (36, 21197), (39, 21221), (43, 21290), (44, 21299), (45, 21314),

Gene: Naval22_70 Start: 21742, Stop: 22050, Start Num: 24

Candidate Starts for Naval22_70:

(14, 21616), (18, 21709), (Start: 24 @21742 has 167 MA's), (29, 21781), (31, 21844), (39, 21943), (43, 22012), (44, 22021), (45, 22036),

Gene: NedWong_65 Start: 20719, Stop: 21027, Start Num: 24

Candidate Starts for NedWong_65:

(14, 20593), (18, 20686), (Start: 24 @20719 has 167 MA's), (29, 20758), (31, 20821), (39, 20920), (43, 20989), (44, 20998), (45, 21013),

Gene: Ngannou_58 Start: 18647, Stop: 18955, Start Num: 24

Candidate Starts for Ngannou_58:

(14, 18521), (18, 18614), (Start: 24 @18647 has 167 MA's), (29, 18686), (31, 18749), (43, 18917), (44, 18926), (45, 18941),

Gene: Nidhogg_64 Start: 20573, Stop: 20881, Start Num: 24

Candidate Starts for Nidhogg_64:

(9, 20336), (14, 20447), (18, 20540), (Start: 24 @20573 has 167 MA's), (29, 20612), (31, 20675), (43, 20843), (44, 20852), (45, 20867),

Gene: NiebruSaylor_107 Start: 64100, Stop: 63768, Start Num: 19

Candidate Starts for NiebruSaylor_107:

(5, 64469), (10, 64259), (17, 64130), (Start: 19 @64100 has 2 MA's), (Start: 22 @64082 has 17 MA's), (29, 64034), (33, 63935), (36, 63896), (39, 63872), (40, 63839), (41, 63836), (42, 63821),

Gene: NoodleTree_64 Start: 20522, Stop: 20830, Start Num: 24

Candidate Starts for NoodleTree_64:

(14, 20396), (18, 20489), (Start: 24 @20522 has 167 MA's), (29, 20561), (31, 20624), (39, 20723), (43, 20792), (44, 20801), (45, 20816),

Gene: Norm_64 Start: 20720, Stop: 21028, Start Num: 24

Candidate Starts for Norm_64:

(14, 20594), (18, 20687), (Start: 24 @20720 has 167 MA's), (29, 20759), (31, 20822), (39, 20921), (43, 20990), (44, 20999), (45, 21014),

Gene: NuevoMundo_69 Start: 21721, Stop: 22029, Start Num: 24

Candidate Starts for NuevoMundo_69:

(14, 21595), (18, 21688), (Start: 24 @21721 has 167 MA's), (29, 21760), (31, 21823), (39, 21922), (43, 21991), (44, 22000), (45, 22015),

Gene: ParkTD_63 Start: 20719, Stop: 21027, Start Num: 24

Candidate Starts for ParkTD_63:

(14, 20593), (18, 20686), (Start: 24 @20719 has 167 MA's), (29, 20758), (31, 20821), (39, 20920), (43, 20989), (44, 20998), (45, 21013),

Gene: Patter_63 Start: 19682, Stop: 19990, Start Num: 24

Candidate Starts for Patter_63:

(14, 19556), (18, 19649), (Start: 24 @19682 has 167 MA's), (29, 19721), (31, 19784), (43, 19952), (44, 19961), (45, 19976),

Gene: Phendrix_194 Start: 104818, Stop: 104549, Start Num: 20

Candidate Starts for Phendrix_194:

(Start: 20 @104818 has 2 MA's), (29, 104761), (32, 104665), (34, 104653), (35, 104641),

Gene: Phlegm_65 Start: 19665, Stop: 19973, Start Num: 24

Candidate Starts for Phlegm_65:

(14, 19539), (18, 19632), (Start: 24 @19665 has 167 MA's), (29, 19704), (31, 19767), (43, 19935), (44, 19944), (45, 19959),

Gene: Phox_62 Start: 21447, Stop: 21755, Start Num: 24

Candidate Starts for Phox_62:

(14, 21321), (18, 21414), (Start: 24 @21447 has 167 MA's), (29, 21486), (31, 21549), (39, 21648), (43, 21717), (44, 21726), (45, 21741),

Gene: Phusco_63 Start: 20475, Stop: 20783, Start Num: 24

Candidate Starts for Phusco_63:

(14, 20349), (18, 20442), (Start: 24 @20475 has 167 MA's), (29, 20514), (31, 20577), (43, 20745), (44, 20754), (45, 20769),

Gene: Pier_66 Start: 20419, Stop: 20727, Start Num: 24

Candidate Starts for Pier_66:

(9, 20182), (14, 20293), (18, 20386), (Start: 24 @20419 has 167 MA's), (29, 20458), (33, 20557), (36, 20596), (39, 20620), (43, 20689), (44, 20698), (45, 20713),

Gene: Pinkcreek_56 Start: 19025, Stop: 19333, Start Num: 24

Candidate Starts for Pinkcreek_56:

(14, 18899), (18, 18992), (Start: 24 @19025 has 167 MA's), (29, 19064), (31, 19127), (43, 19295), (44, 19304), (45, 19319),

Gene: Pio_68 Start: 21873, Stop: 22181, Start Num: 24

Candidate Starts for Pio_68:

(14, 21747), (18, 21840), (Start: 24 @21873 has 167 MA's), (29, 21912), (31, 21975), (43, 22143), (44, 22152), (45, 22167),

Gene: Pivoine_62 Start: 19665, Stop: 19973, Start Num: 24

Candidate Starts for Pivoine_62:

(14, 19539), (18, 19632), (Start: 24 @19665 has 167 MA's), (29, 19704), (31, 19767), (43, 19935), (44, 19944), (45, 19959),

Gene: Pleione_66 Start: 20718, Stop: 21026, Start Num: 24

Candidate Starts for Pleione_66:

(14, 20592), (18, 20685), (Start: 24 @20718 has 167 MA's), (29, 20757), (31, 20820), (39, 20919), (43, 20988), (44, 20997), (45, 21012),

Gene: PurduePete_63 Start: 20443, Stop: 20751, Start Num: 24

Candidate Starts for PurduePete_63:

(14, 20317), (18, 20410), (Start: 24 @20443 has 167 MA's), (29, 20482), (31, 20545), (39, 20644), (43, 20713), (44, 20722), (45, 20737),

Gene: QBert_58 Start: 20456, Stop: 20764, Start Num: 24

Candidate Starts for QBert_58:

(9, 20219), (14, 20330), (18, 20423), (Start: 24 @20456 has 167 MA's), (29, 20495), (31, 20558), (43, 20726), (44, 20735), (45, 20750),

Gene: Quasimodo_63 Start: 20683, Stop: 20991, Start Num: 24

Candidate Starts for Quasimodo_63:

(14, 20557), (18, 20650), (Start: 24 @20683 has 167 MA's), (29, 20722), (31, 20785), (43, 20953), (44, 20962), (45, 20977),

Gene: Rabinovish_63 Start: 21743, Stop: 22051, Start Num: 24

Candidate Starts for Rabinovish_63:

(9, 21506), (14, 21617), (18, 21710), (Start: 24 @21743 has 167 MA's), (29, 21782), (31, 21845), (43, 22013), (44, 22022), (45, 22037),

Gene: Rahel_64 Start: 20034, Stop: 20342, Start Num: 24

Candidate Starts for Rahel_64:

(14, 19908), (18, 20001), (Start: 24 @20034 has 167 MA's), (29, 20073), (31, 20136), (43, 20304), (44, 20313), (45, 20328),

Gene: Rizal_62 Start: 19636, Stop: 19944, Start Num: 24

Candidate Starts for Rizal_62:

(14, 19510), (18, 19603), (Start: 24 @19636 has 167 MA's), (29, 19675), (31, 19738), (39, 19837), (43, 19906), (44, 19915), (45, 19930),

Gene: RoMag_58 Start: 19638, Stop: 19946, Start Num: 24

Candidate Starts for RoMag_58:

(14, 19512), (18, 19605), (Start: 24 @19638 has 167 MA's), (29, 19677), (31, 19740), (43, 19908), (44, 19917), (45, 19932),

Gene: Ronan_58 Start: 18264, Stop: 18572, Start Num: 24

Candidate Starts for Ronan_58:

(14, 18138), (18, 18231), (Start: 24 @18264 has 167 MA's), (29, 18303), (31, 18366), (39, 18465), (43, 18534), (44, 18543), (45, 18558),

Gene: Roots515_63 Start: 20520, Stop: 20828, Start Num: 24

Candidate Starts for Roots515_63:

(14, 20394), (18, 20487), (Start: 24 @20520 has 167 MA's), (29, 20559), (31, 20622), (39, 20721), (43, 20790), (44, 20799), (45, 20814),

Gene: Ryadel_111 Start: 65800, Stop: 65486, Start Num: 22

Candidate Starts for Ryadel_111:

(6, 66145), (10, 65935), (Start: 22 @65800 has 17 MA's), (29, 65752), (33, 65653), (36, 65614), (39, 65590), (40, 65557), (41, 65554), (42, 65539),

Gene: Salacia_66 Start: 20719, Stop: 21027, Start Num: 24

Candidate Starts for Salacia_66:

(14, 20593), (18, 20686), (Start: 24 @20719 has 167 MA's), (29, 20758), (31, 20821), (39, 20920), (43, 20989), (44, 20998), (45, 21013),

Gene: Sauce_65 Start: 20665, Stop: 20973, Start Num: 24

Candidate Starts for Sauce_65:

(9, 20428), (14, 20539), (18, 20632), (Start: 24 @20665 has 167 MA's), (29, 20704), (31, 20767), (43, 20935), (44, 20944), (45, 20959),

Gene: SchoolBus_106 Start: 64554, Stop: 64243, Start Num: 22

Candidate Starts for SchoolBus_106:

(6, 64899), (10, 64689), (Start: 22 @64554 has 17 MA's), (29, 64509), (33, 64410), (36, 64371), (39, 64347), (40, 64314), (41, 64311), (42, 64296),

Gene: Schuy_104 Start: 64173, Stop: 63862, Start Num: 22

Candidate Starts for Schuy_104:

(5, 64518), (10, 64308), (Start: 22 @64173 has 17 MA's), (29, 64128), (33, 64029), (36, 63990), (39, 63966), (40, 63933), (41, 63930), (42, 63915),

Gene: ScottMcG_62 Start: 20497, Stop: 20805, Start Num: 24

Candidate Starts for ScottMcG_62:

(9, 20260), (14, 20371), (18, 20464), (Start: 24 @20497 has 167 MA's), (29, 20536), (33, 20635), (36, 20674), (39, 20698), (43, 20767), (44, 20776), (45, 20791),

Gene: Sebata_66 Start: 21591, Stop: 21899, Start Num: 24

Candidate Starts for Sebata_66:

(14, 21465), (18, 21558), (Start: 24 @21591 has 167 MA's), (29, 21630), (31, 21693), (43, 21861), (44, 21870), (45, 21885),

Gene: Shaqnato_58 Start: 19187, Stop: 19495, Start Num: 24

Candidate Starts for Shaqnato_58:

(14, 19061), (18, 19154), (Start: 24 @19187 has 167 MA's), (29, 19226), (31, 19289), (39, 19388), (43, 19457), (44, 19466), (45, 19481),

Gene: Shelob_66 Start: 21711, Stop: 22019, Start Num: 24

Candidate Starts for Shelob_66:

(14, 21585), (18, 21678), (Start: 24 @21711 has 167 MA's), (29, 21750), (31, 21813), (39, 21912), (43, 21981), (44, 21990), (45, 22005),

Gene: ShiaLabeouf_63 Start: 20102, Stop: 20410, Start Num: 24

Candidate Starts for ShiaLabeouf_63:

(14, 19976), (18, 20069), (Start: 24 @20102 has 167 MA's), (29, 20141), (31, 20204), (43, 20372), (44, 20381), (45, 20396),

Gene: Shida_109 Start: 65065, Stop: 64754, Start Num: 22

Candidate Starts for Shida_109:

(1, 65485), (2, 65473), (3, 65452), (5, 65416), (10, 65200), (Start: 22 @65065 has 17 MA's), (29, 65020), (33, 64921), (36, 64882), (39, 64858), (40, 64825), (41, 64822), (42, 64807),

Gene: Shifa_57 Start: 19572, Stop: 19880, Start Num: 24

Candidate Starts for Shifa_57:

(9, 19335), (14, 19446), (18, 19539), (Start: 24 @19572 has 167 MA's), (29, 19611), (31, 19674), (43, 19842), (44, 19851), (45, 19866),

Gene: Shnickers_63 Start: 19661, Stop: 19969, Start Num: 24

Candidate Starts for Shnickers_63:

(14, 19535), (18, 19628), (Start: 24 @19661 has 167 MA's), (29, 19700), (31, 19763), (43, 19931), (44, 19940), (45, 19955),

Gene: Shrimp_64 Start: 20723, Stop: 21031, Start Num: 24

Candidate Starts for Shrimp_64:

(14, 20597), (18, 20690), (Start: 24 @20723 has 167 MA's), (29, 20762), (31, 20825), (39, 20924), (43, 20993), (44, 21002), (45, 21017),

Gene: SilverDipper_64 Start: 19665, Stop: 19973, Start Num: 24

Candidate Starts for SilverDipper_64:

(14, 19539), (18, 19632), (Start: 24 @19665 has 167 MA's), (29, 19704), (31, 19767), (43, 19935), (44, 19944), (45, 19959),

Gene: SmallFry_63 Start: 19661, Stop: 19969, Start Num: 24

Candidate Starts for SmallFry_63:

(14, 19535), (18, 19628), (Start: 24 @19661 has 167 MA's), (29, 19700), (31, 19763), (43, 19931), (44, 19940), (45, 19955),

Gene: Smooch_106 Start: 64948, Stop: 64634, Start Num: 22

Candidate Starts for Smooch_106:

(10, 65083), (Start: 22 @64948 has 17 MA's), (26, 64930), (29, 64900), (33, 64801), (36, 64762), (39, 64738), (40, 64705), (41, 64702), (42, 64687),

Gene: Spec_61 Start: 19805, Stop: 20113, Start Num: 24

Candidate Starts for Spec_61:

(14, 19679), (18, 19772), (Start: 24 @19805 has 167 MA's), (29, 19844), (31, 19907), (43, 20075), (44, 20084), (45, 20099),

Gene: Specks_69 Start: 22194, Stop: 22502, Start Num: 24

Candidate Starts for Specks_69:

(14, 22068), (18, 22161), (Start: 24 @22194 has 167 MA's), (29, 22233), (31, 22296), (43, 22464), (44, 22473), (45, 22488),

Gene: Sprinklers_60 Start: 19637, Stop: 19945, Start Num: 24

Candidate Starts for Sprinklers_60:

(14, 19511), (18, 19604), (Start: 24 @19637 has 167 MA's), (29, 19676), (31, 19739), (39, 19838), (43, 19907), (44, 19916), (45, 19931),

Gene: Spud_64 Start: 21034, Stop: 21342, Start Num: 24

Candidate Starts for Spud_64:

(14, 20908), (18, 21001), (Start: 24 @21034 has 167 MA's), (29, 21073), (31, 21136), (39, 21235), (43, 21304), (44, 21313), (45, 21328),

Gene: SrishMeg2525_63 Start: 20430, Stop: 20738, Start Num: 24

Candidate Starts for SrishMeg2525_63:

(14, 20304), (18, 20397), (Start: 24 @20430 has 167 MA's), (29, 20469), (31, 20532), (39, 20631), (43, 20700), (44, 20709), (45, 20724),

Gene: StephanieG_64 Start: 21037, Stop: 21345, Start Num: 24

Candidate Starts for StephanieG_64:

(9, 20800), (14, 20911), (18, 21004), (Start: 24 @21037 has 167 MA's), (29, 21076), (31, 21139), (43, 21307), (44, 21316), (45, 21331),

Gene: Stubby_59 Start: 20356, Stop: 20664, Start Num: 24

Candidate Starts for Stubby_59:

(14, 20230), (18, 20323), (Start: 24 @20356 has 167 MA's), (29, 20395), (31, 20458), (43, 20626), (44, 20635), (45, 20650),

Gene: StubbySaigey_63 Start: 19359, Stop: 19667, Start Num: 24

Candidate Starts for StubbySaigey_63:

(14, 19233), (18, 19326), (Start: 24 @19359 has 167 MA's), (29, 19398), (31, 19461), (39, 19560), (43, 19629), (44, 19638), (45, 19653),

Gene: Teardrop_63 Start: 19518, Stop: 19826, Start Num: 24

Candidate Starts for Teardrop_63:

(14, 19392), (18, 19485), (Start: 24 @19518 has 167 MA's), (29, 19557), (31, 19620), (43, 19788), (44, 19797), (45, 19812),

Gene: TelAviv_104 Start: 64790, Stop: 64479, Start Num: 22

Candidate Starts for TelAviv_104:

(6, 65135), (10, 64925), (Start: 22 @64790 has 17 MA's), (29, 64745), (33, 64646), (36, 64607), (39, 64583), (40, 64550), (41, 64547), (42, 64532),

Gene: TinyTim_64 Start: 20719, Stop: 21027, Start Num: 24

Candidate Starts for TinyTim_64:

(14, 20593), (18, 20686), (Start: 24 @20719 has 167 MA's), (29, 20758), (31, 20821), (39, 20920), (43, 20989), (44, 20998), (45, 21013),

Gene: Tonenili_74 Start: 23256, Stop: 23564, Start Num: 24

Candidate Starts for Tonenili_74:

(7, 22932), (8, 22986), (Start: 24 @23256 has 167 MA's), (29, 23295), (31, 23358), (40, 23490), (43, 23526),

Gene: Tortoise16_61 Start: 20169, Stop: 20477, Start Num: 24

Candidate Starts for Tortoise16_61:

(14, 20043), (18, 20136), (Start: 24 @20169 has 167 MA's), (29, 20208), (31, 20271), (43, 20439), (44, 20448), (45, 20463),

Gene: Trinitium_59 Start: 19122, Stop: 19430, Start Num: 24

Candidate Starts for Trinitium_59:

(14, 18996), (18, 19089), (Start: 24 @19122 has 167 MA's), (29, 19161), (31, 19224), (43, 19392), (44, 19401), (45, 19416),

Gene: Turret_58 Start: 18846, Stop: 19154, Start Num: 24

Candidate Starts for Turret_58:

(14, 18720), (18, 18813), (Start: 24 @18846 has 167 MA's), (29, 18885), (31, 18948), (43, 19116), (44, 19125), (45, 19140),

Gene: Tyke_65 Start: 21073, Stop: 21381, Start Num: 24

Candidate Starts for Tyke_65:

(14, 20947), (18, 21040), (Start: 24 @21073 has 167 MA's), (29, 21112), (31, 21175), (43, 21343), (44, 21352), (45, 21367),

Gene: ValleyTerrace_63 Start: 19665, Stop: 19973, Start Num: 24

Candidate Starts for ValleyTerrace_63:

(14, 19539), (18, 19632), (Start: 24 @19665 has 167 MA's), (29, 19704), (31, 19767), (43, 19935), (44, 19944), (45, 19959),

Gene: Vorrps_107 Start: 64967, Stop: 64653, Start Num: 22

Candidate Starts for Vorrps_107:

(5, 65354), (10, 65144), (17, 65015), (Start: 19 @64985 has 2 MA's), (Start: 22 @64967 has 17 MA's), (29, 64919), (33, 64820), (36, 64781), (39, 64757), (40, 64724), (41, 64721), (42, 64706),

Gene: Wally_62 Start: 19274, Stop: 19582, Start Num: 24

Candidate Starts for Wally_62:

(14, 19148), (18, 19241), (Start: 24 @19274 has 167 MA's), (29, 19313), (31, 19376), (39, 19475), (43, 19544), (44, 19553), (45, 19568),

Gene: Wildflower_101 Start: 62974, Stop: 62660, Start Num: 22

Candidate Starts for Wildflower_101:

(10, 63109), (15, 63040), (Start: 22 @62974 has 17 MA's), (26, 62956), (29, 62926), (33, 62827), (36, 62788), (39, 62764), (40, 62731), (41, 62728), (42, 62713),

Gene: Willis_64 Start: 20614, Stop: 20922, Start Num: 24

Candidate Starts for Willis_64:

(14, 20488), (18, 20581), (Start: 24 @20614 has 167 MA's), (29, 20653), (31, 20716), (39, 20815), (43, 20884), (44, 20893), (45, 20908),

Gene: Winget_107 Start: 64858, Stop: 64547, Start Num: 22

Candidate Starts for Winget_107:

(5, 65203), (10, 64993), (Start: 22 @64858 has 17 MA's), (29, 64813), (33, 64714), (36, 64675), (39, 64651), (40, 64618), (41, 64615), (42, 64600),

Gene: Yassified_61 Start: 20024, Stop: 20332, Start Num: 24

Candidate Starts for Yassified_61:

(9, 19787), (14, 19898), (18, 19991), (Start: 24 @20024 has 167 MA's), (29, 20063), (31, 20126), (43, 20294), (44, 20303), (45, 20318),

Gene: YemiJoy2021_64 Start: 20400, Stop: 20708, Start Num: 24

Candidate Starts for YemiJoy2021_64:

(14, 20274), (18, 20367), (Start: 24 @20400 has 167 MA's), (29, 20439), (31, 20502), (39, 20601), (43, 20670), (44, 20679), (45, 20694),

Gene: YoungMoneyMata_63 Start: 19416, Stop: 19724, Start Num: 24

Candidate Starts for YoungMoneyMata_63:

(14, 19290), (18, 19383), (Start: 24 @19416 has 167 MA's), (29, 19455), (31, 19518), (43, 19686), (44, 19695), (45, 19710),

Gene: Yucca_64 Start: 20641, Stop: 20949, Start Num: 24

Candidate Starts for Yucca_64:

(14, 20515), (18, 20608), (Start: 24 @20641 has 167 MA's), (29, 20680), (31, 20743), (39, 20842), (43, 20911), (44, 20920), (45, 20935),

Gene: Yvonnetastic_3 Start: 1118, Stop: 807, Start Num: 25

Candidate Starts for Yvonnetastic_3:

(11, 1271), (12, 1262), (16, 1196), (23, 1130), (Start: 25 @1118 has 2 MA's), (27, 1097), (28, 1094), (30, 1085), (35, 968), (37, 947), (38, 944),

Gene: Zakhe101_102 Start: 63086, Stop: 62766, Start Num: 21

Candidate Starts for Zakhe101_102:

(10, 63215), (Start: 21 @63086 has 1 MA's), (29, 63032), (33, 62933), (36, 62894), (39, 62870), (40, 62837), (41, 62834), (42, 62819),

Gene: Zalkecks_65 Start: 20404, Stop: 20712, Start Num: 24

Candidate Starts for Zalkecks_65:

(14, 20278), (18, 20371), (Start: 24 @20404 has 167 MA's), (29, 20443), (31, 20506), (39, 20605), (43, 20674), (44, 20683), (45, 20698),

Gene: Zeenon_66 Start: 20706, Stop: 21014, Start Num: 24

Candidate Starts for Zeenon_66:

(14, 20580), (18, 20673), (Start: 24 @20706 has 167 MA's), (29, 20745), (31, 20808), (39, 20907), (43, 20976), (44, 20985), (45, 21000),

Gene: ZygoTaiga_64 Start: 20720, Stop: 21028, Start Num: 24

Candidate Starts for ZygoTaiga_64:

(14, 20594), (18, 20687), (Start: 24 @20720 has 167 MA's), (29, 20759), (31, 20822), (39, 20921), (43, 20990), (44, 20999), (45, 21014),