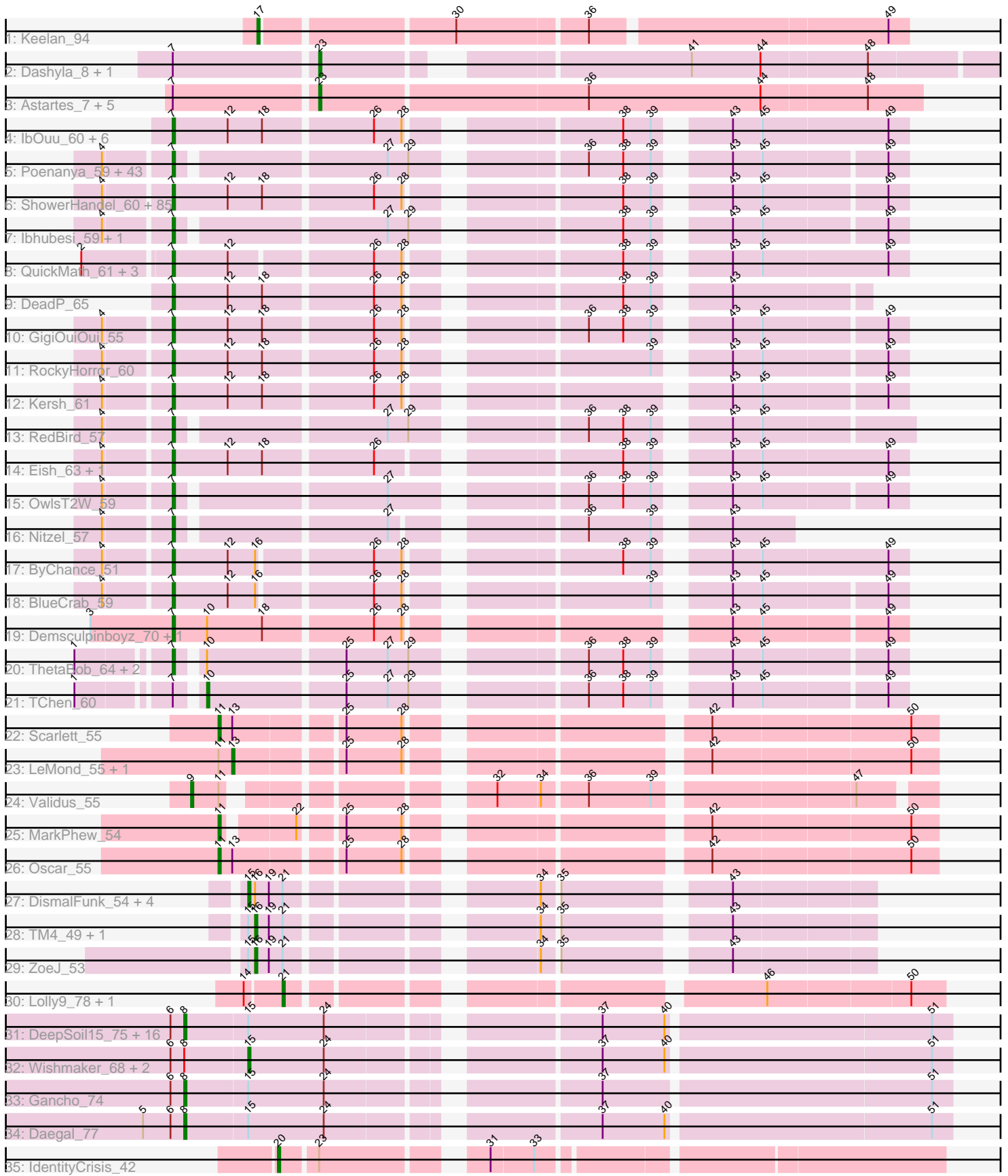


Pham 154478



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 154478 Report

This analysis was run 04/12/24 on database version 558.

Pham number 154478 has 208 members, 17 are drafts.

Phages represented in each track:

- Track 1 : Keelan_94
- Track 2 : Dashyla_8, Alex44_7
- Track 3 : Astartes_7, RicoCaldo_7, PhriedRice_7, Moleficent_7, StagePhright_7, Fullmetal_7
- Track 4 : IbOuu_60, Wee_63, CaptainTrips_56, Enby_60, MinionDave_58, Hegedechwinu_59, SG4_56
- Track 5 : Poenanya_59, Estave1_62, Seabastian_64, Plumbus_61, LilMoolah_57, Jinglebell_64, Ochi17_62, Sassafras_57, Leperchaun_51, Leozinho_58, Girr_57, DRBy19_62, OfUltron_64, Daenerys_53, JoeyJr_54, SimranZ1_59, Spoonbill_56, Llama_64, PHappiness_54, Ruby_55, DosHalletts_65, AlpineSix_64, Stap_57, RitaG_54, Oksu_63, DillTech15_56, MisterCuddles_57, KingMidas_58, Cornucopia_61, Galactic_58, Job42_61, Empress_57, Pacc40_53, Phasih_57, LunaBlu_61, Inventum_54, Nivrat_55, Philus_62, Modragons_63, Dorothy_57, Polka14_57, Avani_67, Doomphist_59, BodEinwohner17_59
- Track 6 : ShowerHandel_60, Burwell21_57, Zizzle_63, Phatniss_57, Mahavrat_57, WillSterrel_60, Jarcob_59, Llij_55, Marker_66, Rita_60, Drago_57, Strokeseat_55, Karhdo_56, Sabbb_63, Latretium_61, Soul22_65, DirtMcgirt_58, Alexphander_63, SiSi_57, Jabbawokkie_73, James_63, Eradicator_52, SwagPigglett_64, Totinger_61, Martik_59, OldBen_56, Rialto_65, Mova_60, BuzzLyseyear_65, GUmble_57, EleanorGeorge_60, Whouxphf_56, Mozy_68, KristaRAM_62, Spartacus_61, Gandalph_62, Madiba_57, Dante_60, Tootsieroll_60, Yorick_58, Pollywog_60, NormanBulbieJr_59, Byougenkin_57, Chuckly_62, IrishSherpFalk_60, Priscilla_59, Zapner_72, BobaPhett_63, Saal_61, Brocalys_54, Maravista_60, Clifton_54, Radiance_58, PMC_56, Hlubikazi_55, MadMen_57, ShroomBoi_61, Doug_61, Zerg_59, Koella_53, Blarby_71, Rockne_60, DaddyRickover_58, Cabrinians_60, Gorge_63, OlympiaSaint_61, Boomer_64, Mattes_63, Pippy_57, UncleRicky_58, Firehouse51_60, VRedHorse_59, Mandlovu_55, Blexus_57, LastJedi_53, ShiLan_58, FreddyB_60, Mutaforma13_63, LittleShirley_59, Spikelee_66, Lorde_59, Scottish_57, Lizziana_65, Hades_60, Crumble_54, Fancypants_61
- Track 7 : lbhubesi_59, Veteran_56
- Track 8 : QuickMath_61, Kimberlium_62, Cornie_55, Starcevich_59
- Track 9 : DeadP_65
- Track 10 : GigiOuiOui_55
- Track 11 : RockyHorror_60
- Track 12 : Kersh_61
- Track 13 : RedBird_57
- Track 14 : Eish_63, DaWorst_60

- Track 15 : OwlsT2W_59
- Track 16 : Nitzel_57
- Track 17 : ByChance_51
- Track 18 : BlueCrab_59
- Track 19 : Demsculpinboyz_70, Renaud18_65
- Track 20 : ThetaBob_64, LunaStella_55, Yoshi_72
- Track 21 : TChen_60
- Track 22 : Scarlett_55
- Track 23 : LeMond_55, KiSi_55
- Track 24 : Validus_55
- Track 25 : MarkPhew_54
- Track 26 : Oscar_55
- Track 27 : DismalFunk_54, Findley_54, DismalStressor_54, Milly_54, Marcoliusprime_54
- Track 28 : TM4_49, Strobilo_58
- Track 29 : ZoeJ_53
- Track 30 : Lolly9_78, MiniMac_83
- Track 31 : DeepSoil15_75, Evanesce_74, Gravallia_69, Amymech_75, Ein37_75, Luna22_68, Kinbote_73, Webster2_75, OBUpride_74, Luke_72, Amochick_76, Giles_68, Dewey_68, Hadrien_72, LilHazelnut_75, Hail_68, HH92_74
- Track 32 : Wishmaker_68, Forge_68, Ubuntu_75
- Track 33 : Gancho_74
- Track 34 : Daegal_77
- Track 35 : IdentityCrisis_42

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

The start number called the most often in the published annotations is 7, it was called in 147 of the 191 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Alexphander_63, AlpineSix_64, Avani_67, Blarby_71, Blexus_57, BlueCrab_59, BobaPhett_63, BodEinwohner17_59, Boomer_64, Brocalys_54, Burwell21_57, BuzzLyseyear_65, ByChance_51, Byougenkin_57, Cabrinians_60, CaptainTrips_56, Chuckly_62, Clifton_54, Cornie_55, Cornucopia_61, Crumble_54, DRBy19_62, DaWorst_60, DaddyRickover_58, Daenerys_53, Dante_60, DeadP_65, Demsculpinboyz_70, DillTech15_56, DirtMcgirt_58, Doomphist_59, Dorothy_57, DosHalletts_65, Doug_61, Drago_57, Eish_63, EleanorGeorge_60, Empress_57, Enby_60, Eradicator_52, Estave1_62, Fancypants_61, Firehouse51_60, FreddyB_60, GUmbie_57, Galactic_58, Gandalph_62, GigiOuiOui_55, Girr_57, Gorge_63, Hades_60, Hegedechwinu_59, Hlubikazi_55, IbOuu_60, Ihubesi_59, Inventum_54, IrishSherpFalk_60, Jabbawokkie_73, James_63, Jarcob_59, Jinglebell_64, Job42_61, JoeyJr_54, Karhdo_56, Kersh_61, Kimberlium_62, KingMidas_58, Koella_53, KristaRAM_62, LastJedi_53, Latretium_61, Leozinho_58, Leperchaun_51, LilMoolah_57, LittleShirley_59, Lizziana_65, Llama_64, Llij_55, Lorde_59, LunaBlu_61, LunaStella_55, MadMen_57, Madiba_57, Mahavrat_57, Mandlovu_55, Maravista_60, Marker_66, Martik_59, Mattes_63, MinionDave_58, MisterCuddles_57, Modragons_63, Mova_60, Mozy_68, Mutaforma13_63, Nitzel_57, Nivrat_55, NormanBulbieJr_59, Ochi17_62, OfUltron_64, Oksu_63, OldBen_56, OlympiaSaint_61, OwlsT2W_59, PHappiness_54, PMC_56, Pacc40_53, Phasih_57,

Phatniss_57, Philus_62, Pippy_57, Plumbus_61, Poenanya_59, Polka14_57, Pollywog_60, Priscilla_59, QuickMath_61, Radiance_58, RedBird_57, Renaud18_65, Rialto_65, RitaG_54, Rita_60, Rockne_60, RockyHorror_60, Ruby_55, SG4_56, Saal_61, Sabbb_63, Sassafras_57, Scottish_57, Seabastian_64, ShiLan_58, ShowerHandel_60, ShroomBoi_61, SiSi_57, SimranZ1_59, Soul22_65, Spartacus_61, Spikelee_66, Spoonbill_56, Stap_57, Starcevich_59, Strokeseat_55, SwagPigglett_64, ThetaBob_64, Tootsieroll_60, Totinger_61, UncleRicky_58, VRedHorse_59, Veteran_56, Wee_63, Whouxphf_56, WillSterrel_60, Yorick_58, Yoshi_72, Zapner_72, Zerg_59, Zizzle_63,

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

- Alex44_7, Astartes_7, Dashyla_8, Fullmetal_7, Moleficent_7, PhriedRice_7, RicoCaldo_7, StagePhright_7, TChen_60,

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

- Amochick_76, Amymech_75, Daegal_77, DeepSoil15_75, Dewey_68, DismalFunk_54, DismalStressor_54, Ein37_75, Evanesce_74, Findley_54, Forge_68, Gancho_74, Giles_68, Gravaillia_69, HH92_74, Hadrien_72, Hail_68, IdentityCrisis_42, Keelan_94, KiSi_55, Kinbote_73, LeMond_55, LilHazelNut_75, Lolly9_78, Luke_72, Luna22_68, Marcoliusprime_54, MarkPhew_54, Milly_54, MiniMac_83, OBUpride_74, Oscar_55, Scarlett_55, Strobilo_58, TM4_49, Ubuntu_75, Validus_55, Webster2_75, Wishmaker_68, ZoeJ_53,

Summary by start number:

Start 7:

- Found in 168 of 208 (80.8%) of genes in pham
- Manual Annotations of this start: 147 of 191
- Called 94.6% of time when present
- Phage (with cluster) where this start called: Alexphander_63 (F1), AlpineSix_64 (F1), Avani_67 (F2), Blarby_71 (F), Blexus_57 (F1), BlueCrab_59 (F1), BobaPhett_63 (F1), BodEinwohner17_59 (F1), Boomer_64 (F1), Brocalys_54 (F1), Burwell21_57 (F1), BuzzLyseyear_65 (F1), ByChance_51 (F1), Byougenkin_57 (F1), Cabrinians_60 (F1), CaptainTrips_56 (F1), Chuckly_62 (F1), Clifton_54 (F1), Cornie_55 (F5), Cornucopia_61 (F1), Crumble_54 (F1), DRBy19_62 (F1), DaWorst_60 (F1), DaddyRickover_58 (F1), Daenerys_53 (F1), Dante_60 (F1), DeadP_65 (F1), Demsculpinboyz_70 (F2), DillTech15_56 (F1), DirtMcgirt_58 (F1), Doomphist_59 (F1), Dorothy_57 (F1), DosHalletts_65 (F1), Doug_61 (F1), Drago_57 (F1), Eish_63 (F1), EleanorGeorge_60 (F1), Empress_57 (F1), Enby_60 (F1), Eradicator_52 (F1), Estave1_62 (F1), Fancypants_61 (F1), Firehouse51_60 (F1), FreddyB_60 (F1), GUmbie_57 (F1), Galactic_58 (F1), Gandalph_62 (F1), GigiOuiOui_55 (F1), Girr_57 (F1), Gorge_63 (F1), Hades_60 (F1), Hegedechwinu_59 (F1), Hlubikazi_55 (F1), IbOuu_60 (F1), Ibhubesi_59 (F1), Inventum_54 (F1), IrishSherpFalk_60 (F1), Jabbawokkie_73 (F2), James_63 (F1), Jarcob_59 (F1), Jinglebell_64 (F1), Job42_61 (F1), JoeyJr_54 (F1), Karhdo_56 (F1), Kersh_61 (F1), Kimberlium_62 (F1), KingMidas_58 (F1), Koella_53 (F1), KristaRAM_62 (F1), LastJedi_53 (F1), Latretium_61 (F1), Leozinho_58 (F1), Leperchaun_51 (F1), LilMoolah_57 (F1), LittleShirley_59 (F1), Lizziana_65 (F1), Llama_64 (F1), Llij_55 (F1), Lorde_59 (F1), LunaBlu_61 (F1), LunaStella_55 (F4), MadMen_57 (F1), Madiba_57 (F1), Mahavrat_57 (F1), Mandlovu_55 (F1), Maravista_60 (F1), Marker_66 (F1), Martik_59 (F1), Mattes_63 (F1), MinionDave_58 (F1), MisterCuddles_57 (F1), Modragons_63 (F1), Mova_60 (F1), Mozy_68 (F1), Mutaforma13_63 (F1), Nitzel_57 (F1), Nivrat_55 (F1), NormanBulbieJr_59 (F1),

Ochi17_62 (F1), OfUltron_64 (F1), Oksu_63 (F1), OldBen_56 (F1), OlympiaSaint_61 (F1), OwlsT2W_59 (F1), PHappiness_54 (F1), PMC_56 (F1), Pacc40_53 (F1), Phasih_57 (F1), Phatniss_57 (F1), Philus_62 (F1), Pippy_57 (F1), Plumbus_61 (F1), Poenanya_59 (F1), Polka14_57 (F1), Pollywog_60 (F1), Priscilla_59 (F1), QuickMath_61 (F1), Radiance_58 (F1), RedBird_57 (F1), Renaud18_65 (F4), Rialto_65 (F1), RitaG_54 (F1), Rita_60 (F1), Rockne_60 (F1), RockyHorror_60 (F1), Ruby_55 (F1), SG4_56 (F1), Saal_61 (F1), Sabbb_63 (F1), Sassafras_57 (F1), Scottish_57 (F1), Seabastian_64 (F1), ShiLan_58 (F1), ShowerHandel_60 (F1), ShroomBoi_61 (F1), SiSi_57 (F1), SimranZ1_59 (F1), Soul22_65 (F2), Spartacus_61 (F1), Spikelee_66 (F1), Spoonbill_56 (F1), Stap_57 (F1), Starcevich_59 (F1), Strokeseat_55 (F1), SwagPigglett_64 (F1), ThetaBob_64 (F4), Tootsieroll_60 (F1), Totinger_61 (F1), UncleRicky_58 (F1), VRedHorse_59 (F1), Veteran_56 (F1), Wee_63 (F1), Whouxphf_56 (F1), WillSterrel_60 (F1), Yorick_58 (F1), Yoshi_72 (F2), Zapner_72 (F2), Zerg_59 (F1), Zizzle_63 (F1),

Start 8:

- Found in 22 of 208 (10.6%) of genes in pham
- Manual Annotations of this start: 19 of 191
- Called 86.4% of time when present
- Phage (with cluster) where this start called: Amochick_76 (Q), Amymech_75 (Q), Daegal_77 (Q), DeepSoil15_75 (Q), Dewey_68 (Q), Ein37_75 (Q), Evanesce_74 (Q), Gancho_74 (Q), Giles_68 (Q), Gravaillia_69 (Q), HH92_74 (Q), Hadrien_72 (Q), Hail_68 (Q), Kinbote_73 (Q), LilHazelNut_75 (Q), Luke_72 (Q), Luna22_68 (Q), OBUpride_74 (Q), Webster2_75 (Q),

Start 9:

- Found in 1 of 208 (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: Validus_55 (K1),

Start 10:

- Found in 6 of 208 (2.9%) of genes in pham
- Manual Annotations of this start: 1 of 191
- Called 16.7% of time when present
- Phage (with cluster) where this start called: TChen_60 (F4),

Start 11:

- Found in 6 of 208 (2.9%) of genes in pham
- Manual Annotations of this start: 3 of 191
- Called 50.0% of time when present
- Phage (with cluster) where this start called: MarkPhew_54 (K1), Oscar_55 (K1), Scarlett_55 (K1),

Start 13:

- Found in 4 of 208 (1.9%) of genes in pham
- Manual Annotations of this start: 2 of 191
- Called 50.0% of time when present
- Phage (with cluster) where this start called: KiSi_55 (K1), LeMond_55 (K1),

Start 15:

- Found in 30 of 208 (14.4%) of genes in pham
- Manual Annotations of this start: 7 of 191

- Called 26.7% of time when present
- Phage (with cluster) where this start called: DismalFunk_54 (K2), DismalStressor_54 (K2), Findley_54 (K2), Forge_68 (Q), Marcoliusprime_54 (K2), Milly_54 (K2), Ubuntu_75 (Q), Wishmaker_68 (Q),

Start 16:

- Found in 10 of 208 (4.8%) of genes in pham
- Manual Annotations of this start: 2 of 191
- Called 30.0% of time when present
- Phage (with cluster) where this start called: Strobilo_58 (K2), TM4_49 (K2), ZoeJ_53 (K2),

Start 17:

- Found in 1 of 208 (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: Keelan_94 (DP),

Start 20:

- Found in 1 of 208 (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: IdentityCrisis_42 (singleton),

Start 21:

- Found in 10 of 208 (4.8%) of genes in pham
- Manual Annotations of this start: 2 of 191
- Called 20.0% of time when present
- Phage (with cluster) where this start called: Lolly9_78 (L3), MiniMac_83 (L3),

Start 23:

- Found in 9 of 208 (4.3%) of genes in pham
- Manual Annotations of this start: 5 of 191
- Called 88.9% of time when present
- Phage (with cluster) where this start called: Alex44_7 (EK1), Astartes_7 (EK2), Dashyla_8 (EK1), Fullmetal_7 (EK2), Moleficent_7 (EK2), PhriedRice_7 (EK2), RicoCaldo_7 (EK2), StagePhright_7 (EK2),

Summary by clusters:

There are 13 clusters represented in this pham: F1, F2, F4, F5, DP, F, singleton, Q, K2, K1, L3, EK2, EK1,

Info for manual annotations of cluster DP:

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

Info for manual annotations of cluster EK1:

- Start number 23 was manually annotated 1 time for cluster EK1.

Info for manual annotations of cluster EK2:

- Start number 23 was manually annotated 4 times for cluster EK2.

Info for manual annotations of cluster F1:

- Start number 7 was manually annotated 138 times for cluster F1.

Info for manual annotations of cluster F2:

- Start number 7 was manually annotated 6 times for cluster F2.

Info for manual annotations of cluster F4:

- Start number 7 was manually annotated 2 times for cluster F4.
- Start number 10 was manually annotated 1 time for cluster F4.

Info for manual annotations of cluster F5:

- Start number 7 was manually annotated 1 time for cluster F5.

Info for manual annotations of cluster K1:

- Start number 9 was manually annotated 1 time for cluster K1.
- Start number 11 was manually annotated 3 times for cluster K1.
- Start number 13 was manually annotated 2 times for cluster K1.

Info for manual annotations of cluster K2:

- Start number 15 was manually annotated 5 times for cluster K2.
- Start number 16 was manually annotated 2 times for cluster K2.

Info for manual annotations of cluster L3:

- Start number 21 was manually annotated 2 times for cluster L3.

Info for manual annotations of cluster Q:

- Start number 8 was manually annotated 19 times for cluster Q.
- Start number 15 was manually annotated 2 times for cluster Q.

Gene Information:

Gene: Alex44_7 Start: 5465, Stop: 5193, Start Num: 23

Candidate Starts for Alex44_7:

(Start: 7 @5525 has 147 MA's), (Start: 23 @5465 has 5 MA's), (41, 5327), (44, 5297), (48, 5252),

Gene: Alexphander_63 Start: 40422, Stop: 40706, Start Num: 7

Candidate Starts for Alexphander_63:

(4, 40395), (Start: 7 @40422 has 147 MA's), (12, 40446), (18, 40461), (26, 40506), (28, 40518), (38, 40596), (39, 40608), (43, 40632), (45, 40644), (49, 40698),

Gene: AlpineSix_64 Start: 42541, Stop: 42819, Start Num: 7

Candidate Starts for AlpineSix_64:

(4, 42514), (Start: 7 @42541 has 147 MA's), (27, 42625), (29, 42634), (36, 42697), (38, 42712), (39, 42724), (43, 42748), (45, 42760), (49, 42811),

Gene: Amochick_76 Start: 49396, Stop: 49704, Start Num: 8

Candidate Starts for Amochick_76:

(6, 49390), (Start: 8 @49396 has 19 MA's), (Start: 15 @49423 has 7 MA's), (24, 49456), (37, 49558), (40, 49585), (51, 49696),

Gene: Amymech_75 Start: 48849, Stop: 49157, Start Num: 8

Candidate Starts for Amymech_75:

(6, 48843), (Start: 8 @48849 has 19 MA's), (Start: 15 @48876 has 7 MA's), (24, 48909), (37, 49011), (40, 49038), (51, 49149),

Gene: Astartes_7 Start: 5219, Stop: 4962, Start Num: 23

Candidate Starts for Astartes_7:

(Start: 7 @5279 has 147 MA's), (Start: 23 @5219 has 5 MA's), (36, 5105), (44, 5030), (48, 4985),

Gene: Avani_67 Start: 40740, Stop: 41018, Start Num: 7

Candidate Starts for Avani_67:

(4, 40713), (Start: 7 @40740 has 147 MA's), (27, 40824), (29, 40833), (36, 40896), (38, 40911), (39, 40923), (43, 40947), (45, 40959), (49, 41010),

Gene: Blarby_71 Start: 41835, Stop: 42119, Start Num: 7

Candidate Starts for Blarby_71:

(4, 41808), (Start: 7 @41835 has 147 MA's), (12, 41859), (18, 41874), (26, 41919), (28, 41931), (38, 42009), (39, 42021), (43, 42045), (45, 42057), (49, 42111),

Gene: Blexus_57 Start: 40392, Stop: 40673, Start Num: 7

Candidate Starts for Blexus_57:

(4, 40365), (Start: 7 @40392 has 147 MA's), (12, 40416), (18, 40431), (26, 40476), (28, 40488), (38, 40566), (39, 40578), (43, 40602), (45, 40614), (49, 40665),

Gene: BlueCrab_59 Start: 40700, Stop: 40978, Start Num: 7

Candidate Starts for BlueCrab_59:

(4, 40673), (Start: 7 @40700 has 147 MA's), (12, 40724), (Start: 16 @40736 has 2 MA's), (26, 40781), (28, 40793), (39, 40883), (43, 40907), (45, 40919), (49, 40970),

Gene: BobaPhett_63 Start: 42651, Stop: 42935, Start Num: 7

Candidate Starts for BobaPhett_63:

(4, 42624), (Start: 7 @42651 has 147 MA's), (12, 42675), (18, 42690), (26, 42735), (28, 42747), (38, 42825), (39, 42837), (43, 42861), (45, 42873), (49, 42927),

Gene: BodEinwohner17_59 Start: 39462, Stop: 39740, Start Num: 7

Candidate Starts for BodEinwohner17_59:

(4, 39435), (Start: 7 @39462 has 147 MA's), (27, 39546), (29, 39555), (36, 39618), (38, 39633), (39, 39645), (43, 39669), (45, 39681), (49, 39732),

Gene: Boomer_64 Start: 42326, Stop: 42610, Start Num: 7

Candidate Starts for Boomer_64:

(4, 42299), (Start: 7 @42326 has 147 MA's), (12, 42350), (18, 42365), (26, 42410), (28, 42422), (38, 42500), (39, 42512), (43, 42536), (45, 42548), (49, 42602),

Gene: Brocalys_54 Start: 36836, Stop: 37117, Start Num: 7

Candidate Starts for Brocalys_54:

(4, 36809), (Start: 7 @36836 has 147 MA's), (12, 36860), (18, 36875), (26, 36920), (28, 36932), (38, 37010), (39, 37022), (43, 37046), (45, 37058), (49, 37109),

Gene: Burwell21_57 Start: 39934, Stop: 40218, Start Num: 7

Candidate Starts for Burwell21_57:

(4, 39907), (Start: 7 @39934 has 147 MA's), (12, 39958), (18, 39973), (26, 40018), (28, 40030), (38, 40108), (39, 40120), (43, 40144), (45, 40156), (49, 40210),

Gene: BuzzLyseyear_65 Start: 41358, Stop: 41639, Start Num: 7
Candidate Starts for BuzzLyseyear_65:
(4, 41331), (Start: 7 @41358 has 147 MA's), (12, 41382), (18, 41397), (26, 41442), (28, 41454), (38, 41532), (39, 41544), (43, 41568), (45, 41580), (49, 41631),

Gene: ByChance_51 Start: 35625, Stop: 35906, Start Num: 7
Candidate Starts for ByChance_51:
(4, 35598), (Start: 7 @35625 has 147 MA's), (12, 35649), (Start: 16 @35661 has 2 MA's), (26, 35706), (28, 35718), (38, 35796), (39, 35808), (43, 35832), (45, 35844), (49, 35898),

Gene: Byougenkin_57 Start: 39701, Stop: 39982, Start Num: 7
Candidate Starts for Byougenkin_57:
(4, 39674), (Start: 7 @39701 has 147 MA's), (12, 39725), (18, 39740), (26, 39785), (28, 39797), (38, 39875), (39, 39887), (43, 39911), (45, 39923), (49, 39974),

Gene: Cabrinians_60 Start: 40012, Stop: 40296, Start Num: 7
Candidate Starts for Cabrinians_60:
(4, 39985), (Start: 7 @40012 has 147 MA's), (12, 40036), (18, 40051), (26, 40096), (28, 40108), (38, 40186), (39, 40198), (43, 40222), (45, 40234), (49, 40288),

Gene: CaptainTrips_56 Start: 39508, Stop: 39792, Start Num: 7
Candidate Starts for CaptainTrips_56:
(Start: 7 @39508 has 147 MA's), (12, 39532), (18, 39547), (26, 39592), (28, 39604), (38, 39682), (39, 39694), (43, 39718), (45, 39730), (49, 39784),

Gene: Chuckly_62 Start: 40654, Stop: 40938, Start Num: 7
Candidate Starts for Chuckly_62:
(4, 40627), (Start: 7 @40654 has 147 MA's), (12, 40678), (18, 40693), (26, 40738), (28, 40750), (38, 40828), (39, 40840), (43, 40864), (45, 40876), (49, 40930),

Gene: Clifton_54 Start: 37187, Stop: 37468, Start Num: 7
Candidate Starts for Clifton_54:
(4, 37160), (Start: 7 @37187 has 147 MA's), (12, 37211), (18, 37226), (26, 37271), (28, 37283), (38, 37361), (39, 37373), (43, 37397), (45, 37409), (49, 37460),

Gene: Cornie_55 Start: 38439, Stop: 38717, Start Num: 7
Candidate Starts for Cornie_55:
(2, 38403), (Start: 7 @38439 has 147 MA's), (12, 38463), (26, 38520), (28, 38532), (38, 38610), (39, 38622), (43, 38646), (45, 38658), (49, 38709),

Gene: Cornucopia_61 Start: 40668, Stop: 40946, Start Num: 7
Candidate Starts for Cornucopia_61:
(4, 40641), (Start: 7 @40668 has 147 MA's), (27, 40752), (29, 40761), (36, 40824), (38, 40839), (39, 40851), (43, 40875), (45, 40887), (49, 40938),

Gene: Crumble_54 Start: 35948, Stop: 36232, Start Num: 7
Candidate Starts for Crumble_54:
(4, 35921), (Start: 7 @35948 has 147 MA's), (12, 35972), (18, 35987), (26, 36032), (28, 36044), (38, 36122), (39, 36134), (43, 36158), (45, 36170), (49, 36224),

Gene: DRBy19_62 Start: 41112, Stop: 41393, Start Num: 7
Candidate Starts for DRBy19_62:

(4, 41085), (Start: 7 @41112 has 147 MA's), (27, 41196), (29, 41205), (36, 41268), (38, 41283), (39, 41295), (43, 41319), (45, 41331), (49, 41385),

Gene: DaWorst_60 Start: 40413, Stop: 40697, Start Num: 7

Candidate Starts for DaWorst_60:

(4, 40386), (Start: 7 @40413 has 147 MA's), (12, 40437), (18, 40452), (26, 40497), (38, 40587), (39, 40599), (43, 40623), (45, 40635), (49, 40689),

Gene: DaddyRickover_58 Start: 40151, Stop: 40435, Start Num: 7

Candidate Starts for DaddyRickover_58:

(4, 40124), (Start: 7 @40151 has 147 MA's), (12, 40175), (18, 40190), (26, 40235), (28, 40247), (38, 40325), (39, 40337), (43, 40361), (45, 40373), (49, 40427),

Gene: Daegal_77 Start: 49955, Stop: 50263, Start Num: 8

Candidate Starts for Daegal_77:

(5, 49937), (6, 49949), (Start: 8 @49955 has 19 MA's), (Start: 15 @49982 has 7 MA's), (24, 50015), (37, 50117), (40, 50144), (51, 50255),

Gene: Daenerys_53 Start: 38267, Stop: 38545, Start Num: 7

Candidate Starts for Daenerys_53:

(4, 38240), (Start: 7 @38267 has 147 MA's), (27, 38351), (29, 38360), (36, 38423), (38, 38438), (39, 38450), (43, 38474), (45, 38486), (49, 38537),

Gene: Dante_60 Start: 39936, Stop: 40220, Start Num: 7

Candidate Starts for Dante_60:

(4, 39909), (Start: 7 @39936 has 147 MA's), (12, 39960), (18, 39975), (26, 40020), (28, 40032), (38, 40110), (39, 40122), (43, 40146), (45, 40158), (49, 40212),

Gene: Dashyla_8 Start: 5471, Stop: 5202, Start Num: 23

Candidate Starts for Dashyla_8:

(Start: 7 @5531 has 147 MA's), (Start: 23 @5471 has 5 MA's), (41, 5333), (44, 5303), (48, 5258),

Gene: DeadP_65 Start: 42582, Stop: 42848, Start Num: 7

Candidate Starts for DeadP_65:

(Start: 7 @42582 has 147 MA's), (12, 42606), (18, 42621), (26, 42666), (28, 42678), (38, 42756), (39, 42768), (43, 42792),

Gene: DeepSoil15_75 Start: 48849, Stop: 49157, Start Num: 8

Candidate Starts for DeepSoil15_75:

(6, 48843), (Start: 8 @48849 has 19 MA's), (Start: 15 @48876 has 7 MA's), (24, 48909), (37, 49011), (40, 49038), (51, 49149),

Gene: Demsculpinboyz_70 Start: 39936, Stop: 40217, Start Num: 7

Candidate Starts for Demsculpinboyz_70:

(3, 39900), (Start: 7 @39936 has 147 MA's), (Start: 10 @39951 has 1 MA's), (18, 39975), (26, 40020), (28, 40032), (43, 40146), (45, 40158), (49, 40209),

Gene: Dewey_68 Start: 48849, Stop: 49157, Start Num: 8

Candidate Starts for Dewey_68:

(6, 48843), (Start: 8 @48849 has 19 MA's), (Start: 15 @48876 has 7 MA's), (24, 48909), (37, 49011), (40, 49038), (51, 49149),

Gene: DillTech15_56 Start: 38601, Stop: 38879, Start Num: 7

Candidate Starts for DillTech15_56:

(4, 38574), (Start: 7 @38601 has 147 MA's), (27, 38685), (29, 38694), (36, 38757), (38, 38772), (39, 38784), (43, 38808), (45, 38820), (49, 38871),

Gene: DirtMcgirt_58 Start: 38676, Stop: 38960, Start Num: 7

Candidate Starts for DirtMcgirt_58:

(4, 38649), (Start: 7 @38676 has 147 MA's), (12, 38700), (18, 38715), (26, 38760), (28, 38772), (38, 38850), (39, 38862), (43, 38886), (45, 38898), (49, 38952),

Gene: DismalFunk_54 Start: 39559, Stop: 39792, Start Num: 15

Candidate Starts for DismalFunk_54:

(Start: 15 @39559 has 7 MA's), (Start: 16 @39562 has 2 MA's), (19, 39568), (Start: 21 @39574 has 2 MA's), (34, 39664), (35, 39670), (43, 39733),

Gene: DismalStressor_54 Start: 39559, Stop: 39792, Start Num: 15

Candidate Starts for DismalStressor_54:

(Start: 15 @39559 has 7 MA's), (Start: 16 @39562 has 2 MA's), (19, 39568), (Start: 21 @39574 has 2 MA's), (34, 39664), (35, 39670), (43, 39733),

Gene: Doomphist_59 Start: 41112, Stop: 41390, Start Num: 7

Candidate Starts for Doomphist_59:

(4, 41085), (Start: 7 @41112 has 147 MA's), (27, 41196), (29, 41205), (36, 41268), (38, 41283), (39, 41295), (43, 41319), (45, 41331), (49, 41382),

Gene: Dorothy_57 Start: 39331, Stop: 39609, Start Num: 7

Candidate Starts for Dorothy_57:

(4, 39304), (Start: 7 @39331 has 147 MA's), (27, 39415), (29, 39424), (36, 39487), (38, 39502), (39, 39514), (43, 39538), (45, 39550), (49, 39601),

Gene: DosHalletts_65 Start: 41467, Stop: 41745, Start Num: 7

Candidate Starts for DosHalletts_65:

(4, 41440), (Start: 7 @41467 has 147 MA's), (27, 41551), (29, 41560), (36, 41623), (38, 41638), (39, 41650), (43, 41674), (45, 41686), (49, 41737),

Gene: Doug_61 Start: 40679, Stop: 40963, Start Num: 7

Candidate Starts for Doug_61:

(4, 40652), (Start: 7 @40679 has 147 MA's), (12, 40703), (18, 40718), (26, 40763), (28, 40775), (38, 40853), (39, 40865), (43, 40889), (45, 40901), (49, 40955),

Gene: Drago_57 Start: 38679, Stop: 38963, Start Num: 7

Candidate Starts for Drago_57:

(4, 38652), (Start: 7 @38679 has 147 MA's), (12, 38703), (18, 38718), (26, 38763), (28, 38775), (38, 38853), (39, 38865), (43, 38889), (45, 38901), (49, 38955),

Gene: Ein37_75 Start: 48849, Stop: 49157, Start Num: 8

Candidate Starts for Ein37_75:

(6, 48843), (Start: 8 @48849 has 19 MA's), (Start: 15 @48876 has 7 MA's), (24, 48909), (37, 49011), (40, 49038), (51, 49149),

Gene: Eish_63 Start: 40928, Stop: 41212, Start Num: 7

Candidate Starts for Eish_63:

(4, 40901), (Start: 7 @40928 has 147 MA's), (12, 40952), (18, 40967), (26, 41012), (38, 41102), (39, 41114), (43, 41138), (45, 41150), (49, 41204),

Gene: EleanorGeorge_60 Start: 40795, Stop: 41076, Start Num: 7

Candidate Starts for EleanorGeorge_60:

(4, 40768), (Start: 7 @40795 has 147 MA's), (12, 40819), (18, 40834), (26, 40879), (28, 40891), (38, 40969), (39, 40981), (43, 41005), (45, 41017), (49, 41068),

Gene: Empress_57 Start: 39681, Stop: 39959, Start Num: 7

Candidate Starts for Empress_57:

(4, 39654), (Start: 7 @39681 has 147 MA's), (27, 39765), (29, 39774), (36, 39837), (38, 39852), (39, 39864), (43, 39888), (45, 39900), (49, 39951),

Gene: Enby_60 Start: 38955, Stop: 39239, Start Num: 7

Candidate Starts for Enby_60:

(Start: 7 @38955 has 147 MA's), (12, 38979), (18, 38994), (26, 39039), (28, 39051), (38, 39129), (39, 39141), (43, 39165), (45, 39177), (49, 39231),

Gene: Eradicator_52 Start: 38208, Stop: 38489, Start Num: 7

Candidate Starts for Eradicator_52:

(4, 38181), (Start: 7 @38208 has 147 MA's), (12, 38232), (18, 38247), (26, 38292), (28, 38304), (38, 38382), (39, 38394), (43, 38418), (45, 38430), (49, 38481),

Gene: Estave1_62 Start: 41132, Stop: 41410, Start Num: 7

Candidate Starts for Estave1_62:

(4, 41105), (Start: 7 @41132 has 147 MA's), (27, 41216), (29, 41225), (36, 41288), (38, 41303), (39, 41315), (43, 41339), (45, 41351), (49, 41402),

Gene: Evanesce_74 Start: 48849, Stop: 49157, Start Num: 8

Candidate Starts for Evanesce_74:

(6, 48843), (Start: 8 @48849 has 19 MA's), (Start: 15 @48876 has 7 MA's), (24, 48909), (37, 49011), (40, 49038), (51, 49149),

Gene: Fancypants_61 Start: 40646, Stop: 40930, Start Num: 7

Candidate Starts for Fancypants_61:

(4, 40619), (Start: 7 @40646 has 147 MA's), (12, 40670), (18, 40685), (26, 40730), (28, 40742), (38, 40820), (39, 40832), (43, 40856), (45, 40868), (49, 40922),

Gene: Findley_54 Start: 39552, Stop: 39785, Start Num: 15

Candidate Starts for Findley_54:

(Start: 15 @39552 has 7 MA's), (Start: 16 @39555 has 2 MA's), (19, 39561), (Start: 21 @39567 has 2 MA's), (34, 39657), (35, 39663), (43, 39726),

Gene: Firehouse51_60 Start: 43530, Stop: 43814, Start Num: 7

Candidate Starts for Firehouse51_60:

(4, 43503), (Start: 7 @43530 has 147 MA's), (12, 43554), (18, 43569), (26, 43614), (28, 43626), (38, 43704), (39, 43716), (43, 43740), (45, 43752), (49, 43806),

Gene: Forge_68 Start: 48876, Stop: 49157, Start Num: 15

Candidate Starts for Forge_68:

(6, 48843), (Start: 8 @48849 has 19 MA's), (Start: 15 @48876 has 7 MA's), (24, 48909), (37, 49011), (40, 49038), (51, 49149),

Gene: FreddyB_60 Start: 38860, Stop: 39141, Start Num: 7

Candidate Starts for FreddyB_60:

(4, 38833), (Start: 7 @38860 has 147 MA's), (12, 38884), (18, 38899), (26, 38944), (28, 38956), (38, 39034), (39, 39046), (43, 39070), (45, 39082), (49, 39133),

Gene: Fullmetal_7 Start: 5216, Stop: 4959, Start Num: 23

Candidate Starts for Fullmetal_7:

(Start: 7 @5276 has 147 MA's), (Start: 23 @5216 has 5 MA's), (36, 5102), (44, 5027), (48, 4982),

Gene: GUmbie_57 Start: 39435, Stop: 39716, Start Num: 7

Candidate Starts for GUmbie_57:

(4, 39408), (Start: 7 @39435 has 147 MA's), (12, 39459), (18, 39474), (26, 39519), (28, 39531), (38, 39609), (39, 39621), (43, 39645), (45, 39657), (49, 39708),

Gene: Galactic_58 Start: 39901, Stop: 40179, Start Num: 7

Candidate Starts for Galactic_58:

(4, 39874), (Start: 7 @39901 has 147 MA's), (27, 39985), (29, 39994), (36, 40057), (38, 40072), (39, 40084), (43, 40108), (45, 40120), (49, 40171),

Gene: Gancho_74 Start: 48624, Stop: 48932, Start Num: 8

Candidate Starts for Gancho_74:

(6, 48618), (Start: 8 @48624 has 19 MA's), (Start: 15 @48651 has 7 MA's), (24, 48684), (37, 48786), (51, 48924),

Gene: Gandalph_62 Start: 40257, Stop: 40538, Start Num: 7

Candidate Starts for Gandalph_62:

(4, 40230), (Start: 7 @40257 has 147 MA's), (12, 40281), (18, 40296), (26, 40341), (28, 40353), (38, 40431), (39, 40443), (43, 40467), (45, 40479), (49, 40530),

Gene: GigiOuiOui_55 Start: 38875, Stop: 39156, Start Num: 7

Candidate Starts for GigiOuiOui_55:

(4, 38848), (Start: 7 @38875 has 147 MA's), (12, 38899), (18, 38914), (26, 38959), (28, 38971), (36, 39034), (38, 39049), (39, 39061), (43, 39085), (45, 39097), (49, 39148),

Gene: Giles_68 Start: 48849, Stop: 49157, Start Num: 8

Candidate Starts for Giles_68:

(6, 48843), (Start: 8 @48849 has 19 MA's), (Start: 15 @48876 has 7 MA's), (24, 48909), (37, 49011), (40, 49038), (51, 49149),

Gene: Girr_57 Start: 39742, Stop: 40020, Start Num: 7

Candidate Starts for Girr_57:

(4, 39715), (Start: 7 @39742 has 147 MA's), (27, 39826), (29, 39835), (36, 39898), (38, 39913), (39, 39925), (43, 39949), (45, 39961), (49, 40012),

Gene: Gorge_63 Start: 41377, Stop: 41658, Start Num: 7

Candidate Starts for Gorge_63:

(4, 41350), (Start: 7 @41377 has 147 MA's), (12, 41401), (18, 41416), (26, 41461), (28, 41473), (38, 41551), (39, 41563), (43, 41587), (45, 41599), (49, 41650),

Gene: Gravaillia_69 Start: 48905, Stop: 49213, Start Num: 8

Candidate Starts for Gravaillia_69:

(6, 48899), (Start: 8 @48905 has 19 MA's), (Start: 15 @48932 has 7 MA's), (24, 48965), (37, 49067), (40, 49094), (51, 49205),

Gene: HH92_74 Start: 48849, Stop: 49157, Start Num: 8

Candidate Starts for HH92_74:

(6, 48843), (Start: 8 @48849 has 19 MA's), (Start: 15 @48876 has 7 MA's), (24, 48909), (37, 49011), (40, 49038), (51, 49149),

Gene: Hades_60 Start: 40833, Stop: 41114, Start Num: 7

Candidate Starts for Hades_60:

(4, 40806), (Start: 7 @40833 has 147 MA's), (12, 40857), (18, 40872), (26, 40917), (28, 40929), (38, 41007), (39, 41019), (43, 41043), (45, 41055), (49, 41106),

Gene: Hadrien_72 Start: 48849, Stop: 49157, Start Num: 8

Candidate Starts for Hadrien_72:

(6, 48843), (Start: 8 @48849 has 19 MA's), (Start: 15 @48876 has 7 MA's), (24, 48909), (37, 49011), (40, 49038), (51, 49149),

Gene: Hail_68 Start: 48849, Stop: 49157, Start Num: 8

Candidate Starts for Hail_68:

(6, 48843), (Start: 8 @48849 has 19 MA's), (Start: 15 @48876 has 7 MA's), (24, 48909), (37, 49011), (40, 49038), (51, 49149),

Gene: Hegedechwinu_59 Start: 39047, Stop: 39328, Start Num: 7

Candidate Starts for Hegedechwinu_59:

(Start: 7 @39047 has 147 MA's), (12, 39071), (18, 39086), (26, 39131), (28, 39143), (38, 39221), (39, 39233), (43, 39257), (45, 39269), (49, 39320),

Gene: Hlubikazi_55 Start: 38053, Stop: 38334, Start Num: 7

Candidate Starts for Hlubikazi_55:

(4, 38026), (Start: 7 @38053 has 147 MA's), (12, 38077), (18, 38092), (26, 38137), (28, 38149), (38, 38227), (39, 38239), (43, 38263), (45, 38275), (49, 38326),

Gene: lbOuu_60 Start: 40412, Stop: 40696, Start Num: 7

Candidate Starts for lbOuu_60:

(Start: 7 @40412 has 147 MA's), (12, 40436), (18, 40451), (26, 40496), (28, 40508), (38, 40586), (39, 40598), (43, 40622), (45, 40634), (49, 40688),

Gene: lbhubesi_59 Start: 40025, Stop: 40303, Start Num: 7

Candidate Starts for lbhubesi_59:

(4, 39998), (Start: 7 @40025 has 147 MA's), (27, 40109), (29, 40118), (38, 40196), (39, 40208), (43, 40232), (45, 40244), (49, 40295),

Gene: IdentityCrisis_42 Start: 29075, Stop: 29332, Start Num: 20

Candidate Starts for IdentityCrisis_42:

(Start: 20 @29075 has 1 MA's), (Start: 23 @29090 has 5 MA's), (31, 29150), (33, 29168),

Gene: Inventum_54 Start: 39529, Stop: 39807, Start Num: 7

Candidate Starts for Inventum_54:

(4, 39502), (Start: 7 @39529 has 147 MA's), (27, 39613), (29, 39622), (36, 39685), (38, 39700), (39, 39712), (43, 39736), (45, 39748), (49, 39799),

Gene: IrishSherpFalk_60 Start: 41690, Stop: 41971, Start Num: 7

Candidate Starts for IrishSherpFalk_60:

(4, 41663), (Start: 7 @41690 has 147 MA's), (12, 41714), (18, 41729), (26, 41774), (28, 41786), (38, 41864), (39, 41876), (43, 41900), (45, 41912), (49, 41963),

Gene: Jabbawokkie_73 Start: 41755, Stop: 42039, Start Num: 7

Candidate Starts for Jabbawokkie_73:

(4, 41728), (Start: 7 @41755 has 147 MA's), (12, 41779), (18, 41794), (26, 41839), (28, 41851), (38, 41929), (39, 41941), (43, 41965), (45, 41977), (49, 42031),

Gene: James_63 Start: 41502, Stop: 41783, Start Num: 7

Candidate Starts for James_63:

(4, 41475), (Start: 7 @41502 has 147 MA's), (12, 41526), (18, 41541), (26, 41586), (28, 41598), (38, 41676), (39, 41688), (43, 41712), (45, 41724), (49, 41775),

Gene: Jaracob_59 Start: 39980, Stop: 40264, Start Num: 7

Candidate Starts for Jaracob_59:

(4, 39953), (Start: 7 @39980 has 147 MA's), (12, 40004), (18, 40019), (26, 40064), (28, 40076), (38, 40154), (39, 40166), (43, 40190), (45, 40202), (49, 40256),

Gene: Jinglebell_64 Start: 42540, Stop: 42818, Start Num: 7

Candidate Starts for Jinglebell_64:

(4, 42513), (Start: 7 @42540 has 147 MA's), (27, 42624), (29, 42633), (36, 42696), (38, 42711), (39, 42723), (43, 42747), (45, 42759), (49, 42810),

Gene: Job42_61 Start: 41920, Stop: 42201, Start Num: 7

Candidate Starts for Job42_61:

(4, 41893), (Start: 7 @41920 has 147 MA's), (27, 42004), (29, 42013), (36, 42076), (38, 42091), (39, 42103), (43, 42127), (45, 42139), (49, 42193),

Gene: JoeyJr_54 Start: 38435, Stop: 38713, Start Num: 7

Candidate Starts for JoeyJr_54:

(4, 38408), (Start: 7 @38435 has 147 MA's), (27, 38519), (29, 38528), (36, 38591), (38, 38606), (39, 38618), (43, 38642), (45, 38654), (49, 38705),

Gene: Karhdo_56 Start: 39525, Stop: 39809, Start Num: 7

Candidate Starts for Karhdo_56:

(4, 39498), (Start: 7 @39525 has 147 MA's), (12, 39549), (18, 39564), (26, 39609), (28, 39621), (38, 39699), (39, 39711), (43, 39735), (45, 39747), (49, 39801),

Gene: Keelan_94 Start: 48287, Stop: 48550, Start Num: 17

Candidate Starts for Keelan_94:

(Start: 17 @48287 has 1 MA's), (30, 48365), (36, 48419), (49, 48542),

Gene: Kersh_61 Start: 42278, Stop: 42559, Start Num: 7

Candidate Starts for Kersh_61:

(4, 42251), (Start: 7 @42278 has 147 MA's), (12, 42302), (18, 42317), (26, 42362), (28, 42374), (43, 42488), (45, 42500), (49, 42551),

Gene: KiSi_55 Start: 38687, Stop: 38956, Start Num: 13

Candidate Starts for KiSi_55:

(Start: 11 @38681 has 3 MA's), (Start: 13 @38687 has 2 MA's), (25, 38729), (28, 38753), (42, 38861), (50, 38945),

Gene: Kimberlium_62 Start: 41811, Stop: 42092, Start Num: 7

Candidate Starts for Kimberlium_62:

(2, 41775), (Start: 7 @41811 has 147 MA's), (12, 41835), (26, 41892), (28, 41904), (38, 41982), (39, 41994), (43, 42018), (45, 42030), (49, 42084),

Gene: Kinbote_73 Start: 48849, Stop: 49157, Start Num: 8

Candidate Starts for Kinbote_73:

(6, 48843), (Start: 8 @48849 has 19 MA's), (Start: 15 @48876 has 7 MA's), (24, 48909), (37, 49011), (40, 49038), (51, 49149),

Gene: KingMidas_58 Start: 40097, Stop: 40375, Start Num: 7

Candidate Starts for KingMidas_58:

(4, 40070), (Start: 7 @40097 has 147 MA's), (27, 40181), (29, 40190), (36, 40253), (38, 40268), (39, 40280), (43, 40304), (45, 40316), (49, 40367),

Gene: Koella_53 Start: 35910, Stop: 36194, Start Num: 7

Candidate Starts for Koella_53:

(4, 35883), (Start: 7 @35910 has 147 MA's), (12, 35934), (18, 35949), (26, 35994), (28, 36006), (38, 36084), (39, 36096), (43, 36120), (45, 36132), (49, 36186),

Gene: KristaRAM_62 Start: 42482, Stop: 42763, Start Num: 7

Candidate Starts for KristaRAM_62:

(4, 42455), (Start: 7 @42482 has 147 MA's), (12, 42506), (18, 42521), (26, 42566), (28, 42578), (38, 42656), (39, 42668), (43, 42692), (45, 42704), (49, 42755),

Gene: LastJedi_53 Start: 37230, Stop: 37511, Start Num: 7

Candidate Starts for LastJedi_53:

(4, 37203), (Start: 7 @37230 has 147 MA's), (12, 37254), (18, 37269), (26, 37314), (28, 37326), (38, 37404), (39, 37416), (43, 37440), (45, 37452), (49, 37503),

Gene: Latretium_61 Start: 40556, Stop: 40837, Start Num: 7

Candidate Starts for Latretium_61:

(4, 40529), (Start: 7 @40556 has 147 MA's), (12, 40580), (18, 40595), (26, 40640), (28, 40652), (38, 40730), (39, 40742), (43, 40766), (45, 40778), (49, 40829),

Gene: LeMond_55 Start: 38671, Stop: 38940, Start Num: 13

Candidate Starts for LeMond_55:

(Start: 11 @38665 has 3 MA's), (Start: 13 @38671 has 2 MA's), (25, 38713), (28, 38737), (42, 38845), (50, 38929),

Gene: Leozinho_58 Start: 39315, Stop: 39593, Start Num: 7

Candidate Starts for Leozinho_58:

(4, 39288), (Start: 7 @39315 has 147 MA's), (27, 39399), (29, 39408), (36, 39471), (38, 39486), (39, 39498), (43, 39522), (45, 39534), (49, 39585),

Gene: Leperchaun_51 Start: 37665, Stop: 37943, Start Num: 7

Candidate Starts for Leperchaun_51:

(4, 37638), (Start: 7 @37665 has 147 MA's), (27, 37749), (29, 37758), (36, 37821), (38, 37836), (39, 37848), (43, 37872), (45, 37884), (49, 37935),

Gene: LilHazelnut_75 Start: 48849, Stop: 49157, Start Num: 8

Candidate Starts for LilHazelnut_75:

(6, 48843), (Start: 8 @48849 has 19 MA's), (Start: 15 @48876 has 7 MA's), (24, 48909), (37, 49011), (40, 49038), (51, 49149),

Gene: LilMoolah_57 Start: 39425, Stop: 39706, Start Num: 7

Candidate Starts for LilMoolah_57:

(4, 39398), (Start: 7 @39425 has 147 MA's), (27, 39509), (29, 39518), (36, 39581), (38, 39596), (39, 39608), (43, 39632), (45, 39644), (49, 39698),

Gene: LittleShirley_59 Start: 40469, Stop: 40753, Start Num: 7

Candidate Starts for LittleShirley_59:

(4, 40442), (Start: 7 @40469 has 147 MA's), (12, 40493), (18, 40508), (26, 40553), (28, 40565), (38, 40643), (39, 40655), (43, 40679), (45, 40691), (49, 40745),

Gene: Lizziana_65 Start: 40983, Stop: 41264, Start Num: 7

Candidate Starts for Lizziana_65:

(4, 40956), (Start: 7 @40983 has 147 MA's), (12, 41007), (18, 41022), (26, 41067), (28, 41079), (38, 41157), (39, 41169), (43, 41193), (45, 41205), (49, 41256),

Gene: Llama_64 Start: 42394, Stop: 42672, Start Num: 7

Candidate Starts for Llama_64:

(4, 42367), (Start: 7 @42394 has 147 MA's), (27, 42478), (29, 42487), (36, 42550), (38, 42565), (39, 42577), (43, 42601), (45, 42613), (49, 42664),

Gene: Llij_55 Start: 38833, Stop: 39117, Start Num: 7

Candidate Starts for Llij_55:

(4, 38806), (Start: 7 @38833 has 147 MA's), (12, 38857), (18, 38872), (26, 38917), (28, 38929), (38, 39007), (39, 39019), (43, 39043), (45, 39055), (49, 39109),

Gene: Lolly9_78 Start: 53913, Stop: 54164, Start Num: 21

Candidate Starts for Lolly9_78:

(14, 53898), (Start: 21 @53913 has 2 MA's), (46, 54090), (50, 54150),

Gene: Lorde_59 Start: 38120, Stop: 38404, Start Num: 7

Candidate Starts for Lorde_59:

(4, 38093), (Start: 7 @38120 has 147 MA's), (12, 38144), (18, 38159), (26, 38204), (28, 38216), (38, 38294), (39, 38306), (43, 38330), (45, 38342), (49, 38396),

Gene: Luke_72 Start: 48804, Stop: 49112, Start Num: 8

Candidate Starts for Luke_72:

(6, 48798), (Start: 8 @48804 has 19 MA's), (Start: 15 @48831 has 7 MA's), (24, 48864), (37, 48966), (40, 48993), (51, 49104),

Gene: Luna22_68 Start: 48833, Stop: 49141, Start Num: 8

Candidate Starts for Luna22_68:

(6, 48827), (Start: 8 @48833 has 19 MA's), (Start: 15 @48860 has 7 MA's), (24, 48893), (37, 48995), (40, 49022), (51, 49133),

Gene: LunaBlu_61 Start: 40560, Stop: 40838, Start Num: 7

Candidate Starts for LunaBlu_61:

(4, 40533), (Start: 7 @40560 has 147 MA's), (27, 40644), (29, 40653), (36, 40716), (38, 40731), (39, 40743), (43, 40767), (45, 40779), (49, 40830),

Gene: LunaStella_55 Start: 39407, Stop: 39685, Start Num: 7

Candidate Starts for LunaStella_55:

(1, 39371), (Start: 7 @39407 has 147 MA's), (Start: 10 @39416 has 1 MA's), (25, 39473), (27, 39491), (29, 39500), (36, 39563), (38, 39578), (39, 39590), (43, 39614), (45, 39626), (49, 39677),

Gene: MadMen_57 Start: 39757, Stop: 40041, Start Num: 7

Candidate Starts for MadMen_57:

(4, 39730), (Start: 7 @39757 has 147 MA's), (12, 39781), (18, 39796), (26, 39841), (28, 39853), (38, 39931), (39, 39943), (43, 39967), (45, 39979), (49, 40033),

Gene: Madiba_57 Start: 39006, Stop: 39290, Start Num: 7

Candidate Starts for Madiba_57:

(4, 38979), (Start: 7 @39006 has 147 MA's), (12, 39030), (18, 39045), (26, 39090), (28, 39102), (38, 39180), (39, 39192), (43, 39216), (45, 39228), (49, 39282),

Gene: Mahavrat_57 Start: 39385, Stop: 39666, Start Num: 7

Candidate Starts for Mahavrat_57:

(4, 39358), (Start: 7 @39385 has 147 MA's), (12, 39409), (18, 39424), (26, 39469), (28, 39481), (38, 39559), (39, 39571), (43, 39595), (45, 39607), (49, 39658),

Gene: Mandlovu_55 Start: 37995, Stop: 38276, Start Num: 7

Candidate Starts for Mandlovu_55:

(4, 37968), (Start: 7 @37995 has 147 MA's), (12, 38019), (18, 38034), (26, 38079), (28, 38091), (38, 38169), (39, 38181), (43, 38205), (45, 38217), (49, 38268),

Gene: Maravista_60 Start: 41432, Stop: 41713, Start Num: 7

Candidate Starts for Maravista_60:

(4, 41405), (Start: 7 @41432 has 147 MA's), (12, 41456), (18, 41471), (26, 41516), (28, 41528), (38, 41606), (39, 41618), (43, 41642), (45, 41654), (49, 41705),

Gene: Marcoliusprime_54 Start: 39559, Stop: 39792, Start Num: 15

Candidate Starts for Marcoliusprime_54:

(Start: 15 @39559 has 7 MA's), (Start: 16 @39562 has 2 MA's), (19, 39568), (Start: 21 @39574 has 2 MA's), (34, 39664), (35, 39670), (43, 39733),

Gene: MarkPhew_54 Start: 38124, Stop: 38393, Start Num: 11

Candidate Starts for MarkPhew_54:

(Start: 11 @38124 has 3 MA's), (22, 38151), (25, 38166), (28, 38190), (42, 38298), (50, 38382),

Gene: Marker_66 Start: 40100, Stop: 40384, Start Num: 7

Candidate Starts for Marker_66:

(4, 40073), (Start: 7 @40100 has 147 MA's), (12, 40124), (18, 40139), (26, 40184), (28, 40196), (38, 40274), (39, 40286), (43, 40310), (45, 40322), (49, 40376),

Gene: Martik_59 Start: 39936, Stop: 40217, Start Num: 7

Candidate Starts for Martik_59:

(4, 39909), (Start: 7 @39936 has 147 MA's), (12, 39960), (18, 39975), (26, 40020), (28, 40032), (38, 40110), (39, 40122), (43, 40146), (45, 40158), (49, 40209),

Gene: Mattes_63 Start: 41502, Stop: 41783, Start Num: 7

Candidate Starts for Mattes_63:

(4, 41475), (Start: 7 @41502 has 147 MA's), (12, 41526), (18, 41541), (26, 41586), (28, 41598), (38, 41676), (39, 41688), (43, 41712), (45, 41724), (49, 41775),

Gene: Milly_54 Start: 39532, Stop: 39765, Start Num: 15

Candidate Starts for Milly_54:

(Start: 15 @39532 has 7 MA's), (Start: 16 @39535 has 2 MA's), (19, 39541), (Start: 21 @39547 has 2 MA's), (34, 39637), (35, 39643), (43, 39706),

Gene: MiniMac_83 Start: 53909, Stop: 54160, Start Num: 21
Candidate Starts for MiniMac_83:
(14, 53894), (Start: 21 @53909 has 2 MA's), (46, 54086), (50, 54146),

Gene: MinionDave_58 Start: 40283, Stop: 40564, Start Num: 7
Candidate Starts for MinionDave_58:
(Start: 7 @40283 has 147 MA's), (12, 40307), (18, 40322), (26, 40367), (28, 40379), (38, 40457), (39, 40469), (43, 40493), (45, 40505), (49, 40556),

Gene: MisterCuddles_57 Start: 39742, Stop: 40020, Start Num: 7
Candidate Starts for MisterCuddles_57:
(4, 39715), (Start: 7 @39742 has 147 MA's), (27, 39826), (29, 39835), (36, 39898), (38, 39913), (39, 39925), (43, 39949), (45, 39961), (49, 40012),

Gene: Modragons_63 Start: 42384, Stop: 42662, Start Num: 7
Candidate Starts for Modragons_63:
(4, 42357), (Start: 7 @42384 has 147 MA's), (27, 42468), (29, 42477), (36, 42540), (38, 42555), (39, 42567), (43, 42591), (45, 42603), (49, 42654),

Gene: Moleficent_7 Start: 5213, Stop: 4956, Start Num: 23
Candidate Starts for Moleficent_7:
(Start: 7 @5273 has 147 MA's), (Start: 23 @5213 has 5 MA's), (36, 5099), (44, 5024), (48, 4979),

Gene: Mova_60 Start: 39510, Stop: 39794, Start Num: 7
Candidate Starts for Mova_60:
(4, 39483), (Start: 7 @39510 has 147 MA's), (12, 39534), (18, 39549), (26, 39594), (28, 39606), (38, 39684), (39, 39696), (43, 39720), (45, 39732), (49, 39786),

Gene: Mozy_68 Start: 42517, Stop: 42798, Start Num: 7
Candidate Starts for Mozy_68:
(4, 42490), (Start: 7 @42517 has 147 MA's), (12, 42541), (18, 42556), (26, 42601), (28, 42613), (38, 42691), (39, 42703), (43, 42727), (45, 42739), (49, 42790),

Gene: Mutaforma13_63 Start: 42840, Stop: 43124, Start Num: 7
Candidate Starts for Mutaforma13_63:
(4, 42813), (Start: 7 @42840 has 147 MA's), (12, 42864), (18, 42879), (26, 42924), (28, 42936), (38, 43014), (39, 43026), (43, 43050), (45, 43062), (49, 43116),

Gene: Nitzel_57 Start: 39291, Stop: 39521, Start Num: 7
Candidate Starts for Nitzel_57:
(4, 39264), (Start: 7 @39291 has 147 MA's), (27, 39375), (36, 39444), (39, 39471), (43, 39495),

Gene: Nivrat_55 Start: 39298, Stop: 39579, Start Num: 7
Candidate Starts for Nivrat_55:
(4, 39271), (Start: 7 @39298 has 147 MA's), (27, 39382), (29, 39391), (36, 39454), (38, 39469), (39, 39481), (43, 39505), (45, 39517), (49, 39571),

Gene: NormanBulbieJr_59 Start: 39923, Stop: 40207, Start Num: 7
Candidate Starts for NormanBulbieJr_59:
(4, 39896), (Start: 7 @39923 has 147 MA's), (12, 39947), (18, 39962), (26, 40007), (28, 40019), (38, 40097), (39, 40109), (43, 40133), (45, 40145), (49, 40199),

Gene: OBUpride_74 Start: 48893, Stop: 49201, Start Num: 8

Candidate Starts for OBUpride_74:

(6, 48887), (Start: 8 @48893 has 19 MA's), (Start: 15 @48920 has 7 MA's), (24, 48953), (37, 49055), (40, 49082), (51, 49193),

Gene: Ochi17_62 Start: 41991, Stop: 42269, Start Num: 7

Candidate Starts for Ochi17_62:

(4, 41964), (Start: 7 @41991 has 147 MA's), (27, 42075), (29, 42084), (36, 42147), (38, 42162), (39, 42174), (43, 42198), (45, 42210), (49, 42261),

Gene: OfUltron_64 Start: 42540, Stop: 42818, Start Num: 7

Candidate Starts for OfUltron_64:

(4, 42513), (Start: 7 @42540 has 147 MA's), (27, 42624), (29, 42633), (36, 42696), (38, 42711), (39, 42723), (43, 42747), (45, 42759), (49, 42810),

Gene: Oksu_63 Start: 42803, Stop: 43081, Start Num: 7

Candidate Starts for Oksu_63:

(4, 42776), (Start: 7 @42803 has 147 MA's), (27, 42887), (29, 42896), (36, 42959), (38, 42974), (39, 42986), (43, 43010), (45, 43022), (49, 43073),

Gene: OldBen_56 Start: 39848, Stop: 40132, Start Num: 7

Candidate Starts for OldBen_56:

(4, 39821), (Start: 7 @39848 has 147 MA's), (12, 39872), (18, 39887), (26, 39932), (28, 39944), (38, 40022), (39, 40034), (43, 40058), (45, 40070), (49, 40124),

Gene: OlympiaSaint_61 Start: 40444, Stop: 40725, Start Num: 7

Candidate Starts for OlympiaSaint_61:

(4, 40417), (Start: 7 @40444 has 147 MA's), (12, 40468), (18, 40483), (26, 40528), (28, 40540), (38, 40618), (39, 40630), (43, 40654), (45, 40666), (49, 40717),

Gene: Oscar_55 Start: 38567, Stop: 38842, Start Num: 11

Candidate Starts for Oscar_55:

(Start: 11 @38567 has 3 MA's), (Start: 13 @38573 has 2 MA's), (25, 38615), (28, 38639), (42, 38747), (50, 38831),

Gene: OwlsT2W_59 Start: 40166, Stop: 40444, Start Num: 7

Candidate Starts for OwlsT2W_59:

(4, 40139), (Start: 7 @40166 has 147 MA's), (27, 40250), (36, 40322), (38, 40337), (39, 40349), (43, 40373), (45, 40385), (49, 40436),

Gene: PHappiness_54 Start: 38211, Stop: 38489, Start Num: 7

Candidate Starts for PHappiness_54:

(4, 38184), (Start: 7 @38211 has 147 MA's), (27, 38295), (29, 38304), (36, 38367), (38, 38382), (39, 38394), (43, 38418), (45, 38430), (49, 38481),

Gene: PMC_56 Start: 40550, Stop: 40834, Start Num: 7

Candidate Starts for PMC_56:

(4, 40523), (Start: 7 @40550 has 147 MA's), (12, 40574), (18, 40589), (26, 40634), (28, 40646), (38, 40724), (39, 40736), (43, 40760), (45, 40772), (49, 40826),

Gene: Pacc40_53 Start: 38285, Stop: 38563, Start Num: 7

Candidate Starts for Pacc40_53:

(4, 38258), (Start: 7 @38285 has 147 MA's), (27, 38369), (29, 38378), (36, 38441), (38, 38456), (39, 38468), (43, 38492), (45, 38504), (49, 38555),

Gene: Phasih_57 Start: 40355, Stop: 40633, Start Num: 7

Candidate Starts for Phasih_57:

(4, 40328), (Start: 7 @40355 has 147 MA's), (27, 40439), (29, 40448), (36, 40511), (38, 40526), (39, 40538), (43, 40562), (45, 40574), (49, 40625),

Gene: Phatniss_57 Start: 39928, Stop: 40212, Start Num: 7

Candidate Starts for Phatniss_57:

(4, 39901), (Start: 7 @39928 has 147 MA's), (12, 39952), (18, 39967), (26, 40012), (28, 40024), (38, 40102), (39, 40114), (43, 40138), (45, 40150), (49, 40204),

Gene: Philus_62 Start: 41088, Stop: 41369, Start Num: 7

Candidate Starts for Philus_62:

(4, 41061), (Start: 7 @41088 has 147 MA's), (27, 41172), (29, 41181), (36, 41244), (38, 41259), (39, 41271), (43, 41295), (45, 41307), (49, 41361),

Gene: PhriedRice_7 Start: 5180, Stop: 4923, Start Num: 23

Candidate Starts for PhriedRice_7:

(Start: 7 @5240 has 147 MA's), (Start: 23 @5180 has 5 MA's), (36, 5066), (44, 4991), (48, 4946),

Gene: Pippy_57 Start: 38794, Stop: 39075, Start Num: 7

Candidate Starts for Pippy_57:

(4, 38767), (Start: 7 @38794 has 147 MA's), (12, 38818), (18, 38833), (26, 38878), (28, 38890), (38, 38968), (39, 38980), (43, 39004), (45, 39016), (49, 39067),

Gene: Plumbus_61 Start: 40255, Stop: 40533, Start Num: 7

Candidate Starts for Plumbus_61:

(4, 40228), (Start: 7 @40255 has 147 MA's), (27, 40339), (29, 40348), (36, 40411), (38, 40426), (39, 40438), (43, 40462), (45, 40474), (49, 40525),

Gene: Poenanya_59 Start: 41112, Stop: 41390, Start Num: 7

Candidate Starts for Poenanya_59:

(4, 41085), (Start: 7 @41112 has 147 MA's), (27, 41196), (29, 41205), (36, 41268), (38, 41283), (39, 41295), (43, 41319), (45, 41331), (49, 41382),

Gene: Polka14_57 Start: 39308, Stop: 39586, Start Num: 7

Candidate Starts for Polka14_57:

(4, 39281), (Start: 7 @39308 has 147 MA's), (27, 39392), (29, 39401), (36, 39464), (38, 39479), (39, 39491), (43, 39515), (45, 39527), (49, 39578),

Gene: Pollywog_60 Start: 40759, Stop: 41043, Start Num: 7

Candidate Starts for Pollywog_60:

(4, 40732), (Start: 7 @40759 has 147 MA's), (12, 40783), (18, 40798), (26, 40843), (28, 40855), (38, 40933), (39, 40945), (43, 40969), (45, 40981), (49, 41035),

Gene: Priscilla_59 Start: 40022, Stop: 40306, Start Num: 7

Candidate Starts for Priscilla_59:

(4, 39995), (Start: 7 @40022 has 147 MA's), (12, 40046), (18, 40061), (26, 40106), (28, 40118), (38, 40196), (39, 40208), (43, 40232), (45, 40244), (49, 40298),

Gene: QuickMath_61 Start: 42034, Stop: 42315, Start Num: 7

Candidate Starts for QuickMath_61:

(2, 41998), (Start: 7 @42034 has 147 MA's), (12, 42058), (26, 42115), (28, 42127), (38, 42205), (39, 42217), (43, 42241), (45, 42253), (49, 42307),

Gene: Radiance_58 Start: 40047, Stop: 40328, Start Num: 7

Candidate Starts for Radiance_58:

(4, 40020), (Start: 7 @40047 has 147 MA's), (12, 40071), (18, 40086), (26, 40131), (28, 40143), (38, 40221), (39, 40233), (43, 40257), (45, 40269), (49, 40320),

Gene: RedBird_57 Start: 39343, Stop: 39624, Start Num: 7

Candidate Starts for RedBird_57:

(4, 39316), (Start: 7 @39343 has 147 MA's), (27, 39427), (29, 39436), (36, 39499), (38, 39514), (39, 39526), (43, 39550), (45, 39562),

Gene: Renaud18_65 Start: 40812, Stop: 41093, Start Num: 7

Candidate Starts for Renaud18_65:

(3, 40776), (Start: 7 @40812 has 147 MA's), (Start: 10 @40827 has 1 MA's), (18, 40851), (26, 40896), (28, 40908), (43, 41022), (45, 41034), (49, 41085),

Gene: Rialto_65 Start: 42826, Stop: 43110, Start Num: 7

Candidate Starts for Rialto_65:

(4, 42799), (Start: 7 @42826 has 147 MA's), (12, 42850), (18, 42865), (26, 42910), (28, 42922), (38, 43000), (39, 43012), (43, 43036), (45, 43048), (49, 43102),

Gene: RicoCaldo_7 Start: 5210, Stop: 4953, Start Num: 23

Candidate Starts for RicoCaldo_7:

(Start: 7 @5270 has 147 MA's), (Start: 23 @5210 has 5 MA's), (36, 5096), (44, 5021), (48, 4976),

Gene: Rita_60 Start: 38653, Stop: 38937, Start Num: 7

Candidate Starts for Rita_60:

(4, 38626), (Start: 7 @38653 has 147 MA's), (12, 38677), (18, 38692), (26, 38737), (28, 38749), (38, 38827), (39, 38839), (43, 38863), (45, 38875), (49, 38929),

Gene: RitaG_54 Start: 38556, Stop: 38834, Start Num: 7

Candidate Starts for RitaG_54:

(4, 38529), (Start: 7 @38556 has 147 MA's), (27, 38640), (29, 38649), (36, 38712), (38, 38727), (39, 38739), (43, 38763), (45, 38775), (49, 38826),

Gene: Rockne_60 Start: 40562, Stop: 40846, Start Num: 7

Candidate Starts for Rockne_60:

(4, 40535), (Start: 7 @40562 has 147 MA's), (12, 40586), (18, 40601), (26, 40646), (28, 40658), (38, 40736), (39, 40748), (43, 40772), (45, 40784), (49, 40838),

Gene: RockyHorror_60 Start: 39611, Stop: 39892, Start Num: 7

Candidate Starts for RockyHorror_60:

(4, 39584), (Start: 7 @39611 has 147 MA's), (12, 39635), (18, 39650), (26, 39695), (28, 39707), (39, 39797), (43, 39821), (45, 39833), (49, 39884),

Gene: Ruby_55 Start: 39743, Stop: 40021, Start Num: 7

Candidate Starts for Ruby_55:

(4, 39716), (Start: 7 @39743 has 147 MA's), (27, 39827), (29, 39836), (36, 39899), (38, 39914), (39, 39926), (43, 39950), (45, 39962), (49, 40013),

Gene: SG4_56 Start: 39440, Stop: 39724, Start Num: 7

Candidate Starts for SG4_56:

(Start: 7 @39440 has 147 MA's), (12, 39464), (18, 39479), (26, 39524), (28, 39536), (38, 39614), (39, 39626), (43, 39650), (45, 39662), (49, 39716),

Gene: Saal_61 Start: 41196, Stop: 41477, Start Num: 7

Candidate Starts for Saal_61:

(4, 41169), (Start: 7 @41196 has 147 MA's), (12, 41220), (18, 41235), (26, 41280), (28, 41292), (38, 41370), (39, 41382), (43, 41406), (45, 41418), (49, 41469),

Gene: Sabbb_63 Start: 40884, Stop: 41165, Start Num: 7

Candidate Starts for Sabbb_63:

(4, 40857), (Start: 7 @40884 has 147 MA's), (12, 40908), (18, 40923), (26, 40968), (28, 40980), (38, 41058), (39, 41070), (43, 41094), (45, 41106), (49, 41157),

Gene: Sassafras_57 Start: 39528, Stop: 39806, Start Num: 7

Candidate Starts for Sassafras_57:

(4, 39501), (Start: 7 @39528 has 147 MA's), (27, 39612), (29, 39621), (36, 39684), (38, 39699), (39, 39711), (43, 39735), (45, 39747), (49, 39798),

Gene: Scarlett_55 Start: 38559, Stop: 38834, Start Num: 11

Candidate Starts for Scarlett_55:

(Start: 11 @38559 has 3 MA's), (Start: 13 @38565 has 2 MA's), (25, 38607), (28, 38631), (42, 38739), (50, 38823),

Gene: Scottish_57 Start: 39568, Stop: 39852, Start Num: 7

Candidate Starts for Scottish_57:

(4, 39541), (Start: 7 @39568 has 147 MA's), (12, 39592), (18, 39607), (26, 39652), (28, 39664), (38, 39742), (39, 39754), (43, 39778), (45, 39790), (49, 39844),

Gene: Seabastian_64 Start: 42541, Stop: 42819, Start Num: 7

Candidate Starts for Seabastian_64:

(4, 42514), (Start: 7 @42541 has 147 MA's), (27, 42625), (29, 42634), (36, 42697), (38, 42712), (39, 42724), (43, 42748), (45, 42760), (49, 42811),

Gene: ShiLan_58 Start: 39969, Stop: 40253, Start Num: 7

Candidate Starts for ShiLan_58:

(4, 39942), (Start: 7 @39969 has 147 MA's), (12, 39993), (18, 40008), (26, 40053), (28, 40065), (38, 40143), (39, 40155), (43, 40179), (45, 40191), (49, 40245),

Gene: ShowerHandel_60 Start: 39936, Stop: 40217, Start Num: 7

Candidate Starts for ShowerHandel_60:

(4, 39909), (Start: 7 @39936 has 147 MA's), (12, 39960), (18, 39975), (26, 40020), (28, 40032), (38, 40110), (39, 40122), (43, 40146), (45, 40158), (49, 40209),

Gene: ShroomBoi_61 Start: 40896, Stop: 41177, Start Num: 7

Candidate Starts for ShroomBoi_61:

(4, 40869), (Start: 7 @40896 has 147 MA's), (12, 40920), (18, 40935), (26, 40980), (28, 40992), (38, 41070), (39, 41082), (43, 41106), (45, 41118), (49, 41169),

Gene: SiSi_57 Start: 39342, Stop: 39626, Start Num: 7

Candidate Starts for SiSi_57:

(4, 39315), (Start: 7 @39342 has 147 MA's), (12, 39366), (18, 39381), (26, 39426), (28, 39438), (38, 39516), (39, 39528), (43, 39552), (45, 39564), (49, 39618),

Gene: SimranZ1_59 Start: 40122, Stop: 40400, Start Num: 7

Candidate Starts for SimranZ1_59:

(4, 40095), (Start: 7 @40122 has 147 MA's), (27, 40206), (29, 40215), (36, 40278), (38, 40293), (39, 40305), (43, 40329), (45, 40341), (49, 40392),

Gene: Soul22_65 Start: 41527, Stop: 41811, Start Num: 7

Candidate Starts for Soul22_65:

(4, 41500), (Start: 7 @41527 has 147 MA's), (12, 41551), (18, 41566), (26, 41611), (28, 41623), (38, 41701), (39, 41713), (43, 41737), (45, 41749), (49, 41803),

Gene: Spartacus_61 Start: 40606, Stop: 40887, Start Num: 7

Candidate Starts for Spartacus_61:

(4, 40579), (Start: 7 @40606 has 147 MA's), (12, 40630), (18, 40645), (26, 40690), (28, 40702), (38, 40780), (39, 40792), (43, 40816), (45, 40828), (49, 40879),

Gene: Spikelee_66 Start: 42226, Stop: 42507, Start Num: 7

Candidate Starts for Spikelee_66:

(4, 42199), (Start: 7 @42226 has 147 MA's), (12, 42250), (18, 42265), (26, 42310), (28, 42322), (38, 42400), (39, 42412), (43, 42436), (45, 42448), (49, 42499),

Gene: Spoonbill_56 Start: 38516, Stop: 38794, Start Num: 7

Candidate Starts for Spoonbill_56:

(4, 38489), (Start: 7 @38516 has 147 MA's), (27, 38600), (29, 38609), (36, 38672), (38, 38687), (39, 38699), (43, 38723), (45, 38735), (49, 38786),

Gene: StagePhright_7 Start: 5180, Stop: 4923, Start Num: 23

Candidate Starts for StagePhright_7:

(Start: 7 @5240 has 147 MA's), (Start: 23 @5180 has 5 MA's), (36, 5066), (44, 4991), (48, 4946),

Gene: Stap_57 Start: 39317, Stop: 39595, Start Num: 7

Candidate Starts for Stap_57:

(4, 39290), (Start: 7 @39317 has 147 MA's), (27, 39401), (29, 39410), (36, 39473), (38, 39488), (39, 39500), (43, 39524), (45, 39536), (49, 39587),

Gene: Starcevich_59 Start: 40105, Stop: 40383, Start Num: 7

Candidate Starts for Starcevich_59:

(2, 40069), (Start: 7 @40105 has 147 MA's), (12, 40129), (26, 40186), (28, 40198), (38, 40276), (39, 40288), (43, 40312), (45, 40324), (49, 40375),

Gene: Strobilo_58 Start: 39537, Stop: 39767, Start Num: 16

Candidate Starts for Strobilo_58:

(Start: 15 @39534 has 7 MA's), (Start: 16 @39537 has 2 MA's), (19, 39543), (Start: 21 @39549 has 2 MA's), (34, 39639), (35, 39645), (43, 39708),

Gene: Strokeseat_55 Start: 38052, Stop: 38333, Start Num: 7

Candidate Starts for Strokeseat_55:

(4, 38025), (Start: 7 @38052 has 147 MA's), (12, 38076), (18, 38091), (26, 38136), (28, 38148), (38, 38226), (39, 38238), (43, 38262), (45, 38274), (49, 38325),

Gene: SwagPiggett_64 Start: 42244, Stop: 42525, Start Num: 7

Candidate Starts for SwagPiggett_64:

(4, 42217), (Start: 7 @42244 has 147 MA's), (12, 42268), (18, 42283), (26, 42328), (28, 42340), (38, 42418), (39, 42430), (43, 42454), (45, 42466), (49, 42517),

Gene: TChen_60 Start: 41367, Stop: 41636, Start Num: 10

Candidate Starts for TChen_60:

(1, 41322), (Start: 7 @41358 has 147 MA's), (Start: 10 @41367 has 1 MA's), (25, 41424), (27, 41442), (29, 41451), (36, 41514), (38, 41529), (39, 41541), (43, 41565), (45, 41577), (49, 41628),

Gene: TM4_49 Start: 33917, Stop: 34147, Start Num: 16

Candidate Starts for TM4_49:

(Start: 15 @33914 has 7 MA's), (Start: 16 @33917 has 2 MA's), (19, 33923), (Start: 21 @33929 has 2 MA's), (34, 34019), (35, 34025), (43, 34088),

Gene: ThetaBob_64 Start: 41432, Stop: 41710, Start Num: 7

Candidate Starts for ThetaBob_64:

(1, 41396), (Start: 7 @41432 has 147 MA's), (Start: 10 @41441 has 1 MA's), (25, 41498), (27, 41516), (29, 41525), (36, 41588), (38, 41603), (39, 41615), (43, 41639), (45, 41651), (49, 41702),

Gene: Tootsieroll_60 Start: 39265, Stop: 39549, Start Num: 7

Candidate Starts for Tootsieroll_60:

(4, 39238), (Start: 7 @39265 has 147 MA's), (12, 39289), (18, 39304), (26, 39349), (28, 39361), (38, 39439), (39, 39451), (43, 39475), (45, 39487), (49, 39541),

Gene: Totinger_61 Start: 39195, Stop: 39479, Start Num: 7

Candidate Starts for Totinger_61:

(4, 39168), (Start: 7 @39195 has 147 MA's), (12, 39219), (18, 39234), (26, 39279), (28, 39291), (38, 39369), (39, 39381), (43, 39405), (45, 39417), (49, 39471),

Gene: Ubuntu_75 Start: 48876, Stop: 49157, Start Num: 15

Candidate Starts for Ubuntu_75:

(6, 48843), (Start: 8 @48849 has 19 MA's), (Start: 15 @48876 has 7 MA's), (24, 48909), (37, 49011), (40, 49038), (51, 49149),

Gene: UncleRicky_58 Start: 40176, Stop: 40460, Start Num: 7

Candidate Starts for UncleRicky_58:

(4, 40149), (Start: 7 @40176 has 147 MA's), (12, 40200), (18, 40215), (26, 40260), (28, 40272), (38, 40350), (39, 40362), (43, 40386), (45, 40398), (49, 40452),

Gene: VRedHorse_59 Start: 39252, Stop: 39533, Start Num: 7

Candidate Starts for VRedHorse_59:

(4, 39225), (Start: 7 @39252 has 147 MA's), (12, 39276), (18, 39291), (26, 39336), (28, 39348), (38, 39426), (39, 39438), (43, 39462), (45, 39474), (49, 39525),

Gene: Validus_55 Start: 38351, Stop: 38623, Start Num: 9

Candidate Starts for Validus_55:

(Start: 9 @38351 has 1 MA's), (Start: 11 @38363 has 3 MA's), (32, 38453), (34, 38471), (36, 38489), (39, 38516), (47, 38594),

Gene: Veteran_56 Start: 38956, Stop: 39237, Start Num: 7

Candidate Starts for Veteran_56:

(4, 38929), (Start: 7 @38956 has 147 MA's), (27, 39040), (29, 39049), (38, 39127), (39, 39139), (43, 39163), (45, 39175), (49, 39229),

Gene: Webster2_75 Start: 48849, Stop: 49157, Start Num: 8

Candidate Starts for Webster2_75:

(6, 48843), (Start: 8 @48849 has 19 MA's), (Start: 15 @48876 has 7 MA's), (24, 48909), (37, 49011), (40, 49038), (51, 49149),

Gene: Wee_63 Start: 41773, Stop: 42054, Start Num: 7

Candidate Starts for Wee_63:

(Start: 7 @41773 has 147 MA's), (12, 41797), (18, 41812), (26, 41857), (28, 41869), (38, 41947), (39, 41959), (43, 41983), (45, 41995), (49, 42046),

Gene: Whouxphf_56 Start: 39848, Stop: 40129, Start Num: 7

Candidate Starts for Whouxphf_56:

(4, 39821), (Start: 7 @39848 has 147 MA's), (12, 39872), (18, 39887), (26, 39932), (28, 39944), (38, 40022), (39, 40034), (43, 40058), (45, 40070), (49, 40121),

Gene: WillSterrel_60 Start: 41723, Stop: 42004, Start Num: 7

Candidate Starts for WillSterrel_60:

(4, 41696), (Start: 7 @41723 has 147 MA's), (12, 41747), (18, 41762), (26, 41807), (28, 41819), (38, 41897), (39, 41909), (43, 41933), (45, 41945), (49, 41996),

Gene: Wishmaker_68 Start: 48876, Stop: 49157, Start Num: 15

Candidate Starts for Wishmaker_68:

(6, 48843), (Start: 8 @48849 has 19 MA's), (Start: 15 @48876 has 7 MA's), (24, 48909), (37, 49011), (40, 49038), (51, 49149),

Gene: Yorick_58 Start: 40310, Stop: 40591, Start Num: 7

Candidate Starts for Yorick_58:

(4, 40283), (Start: 7 @40310 has 147 MA's), (12, 40334), (18, 40349), (26, 40394), (28, 40406), (38, 40484), (39, 40496), (43, 40520), (45, 40532), (49, 40583),

Gene: Yoshi_72 Start: 41696, Stop: 41974, Start Num: 7

Candidate Starts for Yoshi_72:

(1, 41660), (Start: 7 @41696 has 147 MA's), (Start: 10 @41705 has 1 MA's), (25, 41762), (27, 41780), (29, 41789), (36, 41852), (38, 41867), (39, 41879), (43, 41903), (45, 41915), (49, 41966),

Gene: Zapner_72 Start: 41849, Stop: 42133, Start Num: 7

Candidate Starts for Zapner_72:

(4, 41822), (Start: 7 @41849 has 147 MA's), (12, 41873), (18, 41888), (26, 41933), (28, 41945), (38, 42023), (39, 42035), (43, 42059), (45, 42071), (49, 42125),

Gene: Zerg_59 Start: 39720, Stop: 40004, Start Num: 7

Candidate Starts for Zerg_59:

(4, 39693), (Start: 7 @39720 has 147 MA's), (12, 39744), (18, 39759), (26, 39804), (28, 39816), (38, 39894), (39, 39906), (43, 39930), (45, 39942), (49, 39996),

Gene: Zizzle_63 Start: 41563, Stop: 41847, Start Num: 7

Candidate Starts for Zizzle_63:

(4, 41536), (Start: 7 @41563 has 147 MA's), (12, 41587), (18, 41602), (26, 41647), (28, 41659), (38, 41737), (39, 41749), (43, 41773), (45, 41785), (49, 41839),

Gene: ZoeJ_53 Start: 39008, Stop: 39238, Start Num: 16

Candidate Starts for ZoeJ_53:

(Start: 15 @39005 has 7 MA's), (Start: 16 @39008 has 2 MA's), (19, 39014), (Start: 21 @39020 has 2 MA's), (34, 39110), (35, 39116), (43, 39179),