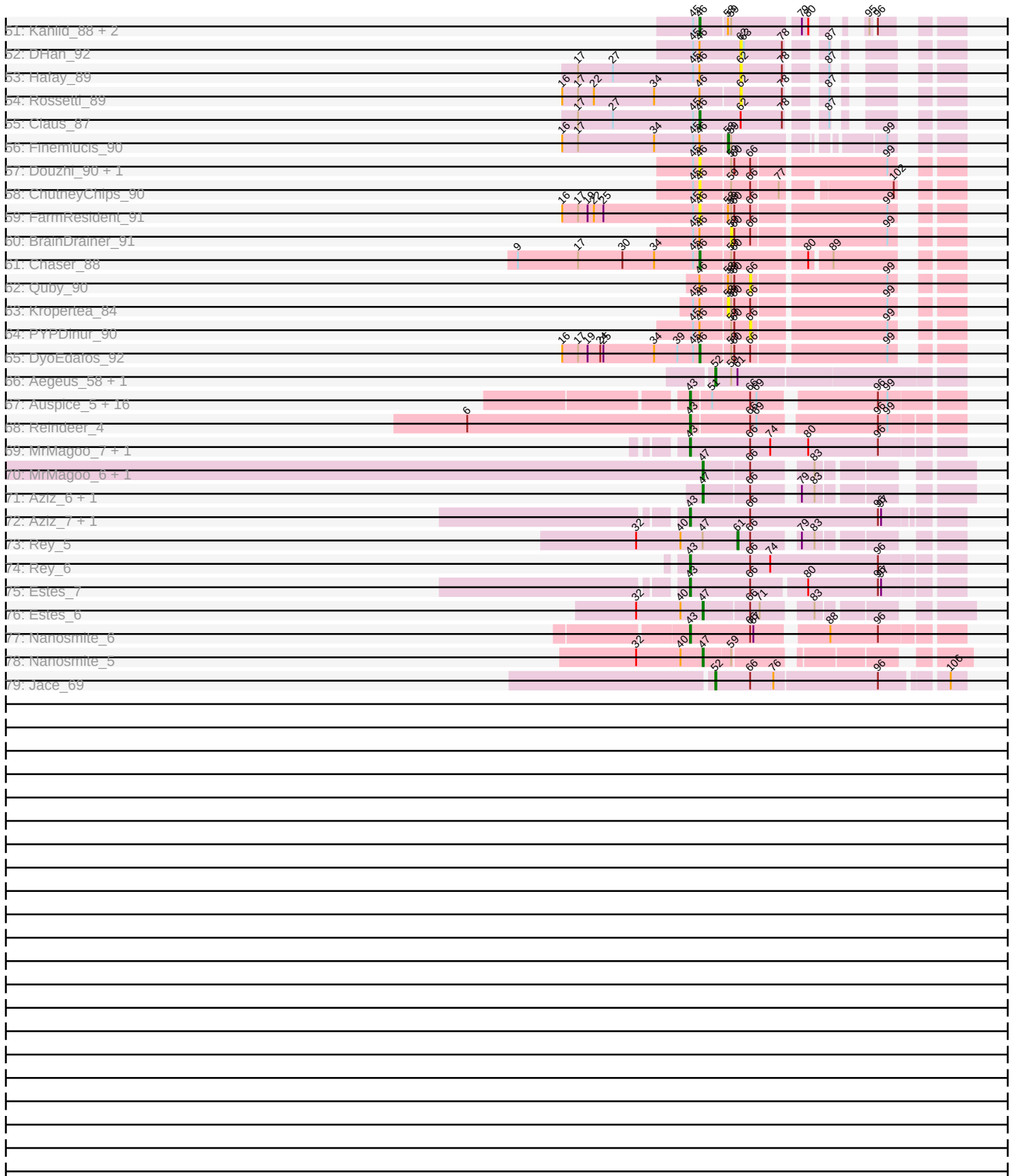


Pham 280133





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 280133 Report

This analysis was run 02/07/26 on database version 634.

Pham number 280133 has 174 members, 27 are drafts.

Phages represented in each track:

- Track 1 : Pharaoh_61
- Track 2 : FatCactus_61
- Track 3 : PP_66
- Track 4 : Toaka_68
- Track 5 : Yecey3_71
- Track 6 : Arissanae_66
- Track 7 : Myrna_58
- Track 8 : Myrna_56
- Track 9 : Greely_63
- Track 10 : ScoobyDoobyDoo_50
- Track 11 : Peregrin_45
- Track 12 : NiceHouse_24
- Track 13 : Daredevil_111, Towmatter_111
- Track 14 : Bantam_116
- Track 15 : SpeedDemon_1180
- Track 16 : Fryberger_9
- Track 17 : Ronaldo_13, Ziko_14, Volt_13
- Track 18 : Guey18_12
- Track 19 : LilJank_73, Trax_73
- Track 20 : Rabbitrun_73
- Track 21 : Fregley_53, Romm_54, CandC_51, RobinRose_54, OneinaGillian_52
- Track 22 : Kelcole_50
- Track 23 : KillerQueen_53, Tempo_52
- Track 24 : Pepe25_51
- Track 25 : Marcie_57
- Track 26 : Rockabye_208
- Track 27 : Chilliams_219
- Track 28 : SJReid_210
- Track 29 : SJReid_226
- Track 30 : Phrampa_199
- Track 31 : Tachez_67, BGlluviae_67, Jarvi_67, Blizzard_67, Llorens_67, Adephagia_67, Hyperbowlee_67, Inky_67, CaseJules_69, Homura_67, Spock_67, Rosmarinus_67, ShiaSurprise_68, Joy99_67, Lunahalos_67, Boiii_67, Durfee_67, Piatt_67, Capricorn_67, Peel_67, Belladonna_67, Atiba_68, Padfoot_67, Topper_67, Dalmuri_67, CallaLilly_67, Asayake_67, Jeckyll_67, Twitch_67, AlishaPH_67, CREW_67, BEEST_67, Geraldini_70
- Track 32 : Validus_72

- Track 33 : Curiosium_71
- Track 34 : Padpat_70, Emerson_69, Pokerus_67, QuincyRose_65, Clipper_71, Beezoo_69, Ganymede_67, MacKat_63
- Track 35 : Chavito_70
- Track 36 : Zavala_70, BarrelRoll_68, Rapunzel97_69, TruffulaTree_68, Slimphazie_68, Mynx_69, Jayhawk_69, MeaningOfLife_68
- Track 37 : Zabiza_62, Ramen_68, ActinUp_67, HedwigODU_67
- Track 38 : CrimD_69
- Track 39 : Adonis_67
- Track 40 : Anaya_70
- Track 41 : Gardann_89, Nicholasp3_89, Rumpelstiltskin_85, Underpass_81
- Track 42 : OverPar_91, Loadrie_88, Faith1_89, Zakai_90, Itos_89, Crossroads_89, Gabriela_89
- Track 43 : Archie_86
- Track 44 : LilDestine_87, GuuelaD_86, Douge_90, ZhongYanYuan_86
- Track 45 : DanBing_88, Baoshan_86
- Track 46 : MkaliMitinis3_91
- Track 47 : Wigglewiggle_89
- Track 48 : Bazzle_86
- Track 49 : Tourach_89
- Track 50 : Lewan_90
- Track 51 : Kahlid_88, Wilder_90, Lynnae_90
- Track 52 : DHan_92
- Track 53 : Hafay_89
- Track 54 : Rossetti_89
- Track 55 : Claus_87
- Track 56 : FinemLucis_90
- Track 57 : Douzhi_90, Sheng711_91
- Track 58 : ChutneyChips_90
- Track 59 : FarmResident_91
- Track 60 : BrainDrainer_91
- Track 61 : Chaser_88
- Track 62 : Quby_90
- Track 63 : Kropertea_84
- Track 64 : PYPDinur_90
- Track 65 : DyoEdafos_92
- Track 66 : Aegeus_58, Baudelaire_58
- Track 67 : Auspice_5, Izel_6, RoseMarie_5, IPhane7_5, KleverKiS_5, Bongo_5, TyDawg_5, LilhomieP_5, SlimJimmy_5, FreakyGoo_6, Diminimus_6, PegLeg_5, Bricole_5, Skinny_6, TpudiCK_6, Glaske16_6, Dulcita_6
- Track 68 : Reindeer_4
- Track 69 : MrMagoo_7, GardenSalsa_7
- Track 70 : MrMagoo_6, GardenSalsa_6
- Track 71 : Aziz_6, GenevaB15_6
- Track 72 : Aziz_7, GenevaB15_7
- Track 73 : Rey_5
- Track 74 : Rey_6
- Track 75 : Estes_7
- Track 76 : Estes_6
- Track 77 : Nanosmite_6
- Track 78 : Nanosmite_5
- Track 79 : Jace_69

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

The start number called the most often in the published annotations is 42, it was called in 58 of the 147 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- ActinUp_67, Adephagia_67, Adonis_67, AlishaPH_67, Anaya_70, Asayake_67, Atiba_68, BEEST_67, BGlluviae_67, BarrelRoll_68, Beezoo_69, Belladonna_67, Blizzard_67, Boiii_67, CREW_67, CallaLilly_67, Capricorn_67, CaseJules_69, Chavito_70, Clipper_71, CrimD_69, Curiosium_71, Dalmuri_67, Durfee_67, Emerson_69, Ganymede_67, Geraldini_70, HedwigODU_67, Homura_67, Hyperbowlee_67, Inky_67, Jarvi_67, Jayhawk_69, Jeckyll_67, Joy99_67, Llorens_67, Lunahalos_67, MacKat_63, MeaningOfLife_68, Mynx_69, Padfoot_67, Padpat_70, Peel_67, Piatt_67, Pokerus_67, QuincyRose_65, Ramen_68, Rapunzel97_69, Rosmarinus_67, ShiaSurprise_68, Slimphazie_68, Spock_67, Tachez_67, Topper_67, TruffulaTree_68, Twitch_67, Validus_72, Zabiza_62, Zavala_70,

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

-

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

- Aegeus_58, Archie_86, Arissanae_66, Auspice_5, Aziz_6, Aziz_7, Bantam_116, Baoshan_86, Baudelaire_58, Bazzle_86, Bongo_5, BrainDrainer_91, Bricole_5, CandC_51, Chaser_88, Chilliams_219, ChutneyChips_90, Claus_87, Crossroads_89, DHan_92, DanBing_88, Daredevil_111, Diminimus_6, Douge_90, Douzhi_90, Dulcita_6, DyoEdafos_92, Estes_6, Estes_7, Faith1_89, FarmResident_91, FatCactus_61, Finemlucis_90, FreakyGoo_6, Fregley_53, Fryberger_9, Gabriela_89, Gardann_89, GardenSalsa_6, GardenSalsa_7, GenevaB15_6, GenevaB15_7, Glaske16_6, Greely_63, Guey18_12, GuuelaD_86, Hafay_89, IPhane7_5, Itos_89, Izel_6, Jace_69, Kahlid_88, Kelcole_50, KillerQueen_53, KleverKiS_5, Kropertea_84, Lewan_90, LilDestine_87, LilJank_73, LilhomieP_5, Loadrie_88, Lynnae_90, Marcie_57, MkaliMitinis3_91, MrMagoo_6, MrMagoo_7, Myrna_56, Myrna_58, Nanosmite_5, Nanosmite_6, NiceHouse_24, Nicholasp3_89, OneinaGillian_52, OverPar_91, PP_66, PYPDinur_90, PegLeg_5, Pepe25_51, Peregrin_45, Pharaoh_61, Phrampa_199, Quby_90, Rabbitrun_73, Reindeer_4, Rey_5, Rey_6, RobinRose_54, Rockabye_208, Romm_54, Ronaldo_13, RoseMarie_5, Rossetti_89, Rumpelstiltskin_85, SJReid_210, SJReid_226, ScoobyDoobyDoo_50, Sheng711_91, Skinny_6, SlimJimmy_5, SpeedDemon_1180, Tempo_52, Toaka_68, Tourach_89, Towmatter_111, TpudiCK_6, Trax_73, TyDawg_5, Underpass_81, Volt_13, Wigglewiggles_89, Wilder_90, Yecey3_71, Zakai_90, ZhongYanYuan_86, Ziko_14,

Summary by start number:

Start 38:

- Found in 2 of 174 (1.1%) of genes in pham
- Manual Annotations of this start: 1 of 147
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Greely_63 (C2), Myrna_58 (C2),

Start 41:

- Found in 4 of 174 (2.3%) of genes in pham
- Manual Annotations of this start: 3 of 147
- Called 75.0% of time when present
- Phage (with cluster) where this start called: Daredevil_111 (DL), SpeedDemon_1180 (DL), Towmatter_111 (DL),

Start 42:

- Found in 59 of 174 (33.9%) of genes in pham
- Manual Annotations of this start: 58 of 147
- Called 100.0% of time when present
- Phage (with cluster) where this start called: ActinUp_67 (K1), Adephagia_67 (K1), Adonis_67 (K1), AlishaPH_67 (K1), Anaya_70 (K1), Asayake_67 (K1), Atiba_68 (K1), BEEST_67 (K1), BGlluviae_67 (K1), BarrelRoll_68 (K1), Beezoo_69 (K1), Belladonna_67 (K1), Blizzard_67 (K1), Boiii_67 (K1), CREW_67 (K1), CallaLilly_67 (K1), Capricorn_67 (K1), CaseJules_69 (K1), Chavito_70 (K1), Clipper_71 (K1), CrimD_69 (K1), Curiosium_71 (K1), Dalmuri_67 (K1), Durfee_67 (K1), Emerson_69 (K1), Ganymede_67 (K1), Geraldini_70 (K1), HedwigODU_67 (K1), Homura_67 (K1), Hyperbowlee_67 (K1), Inky_67 (K1), Jarvi_67 (K1), Jayhawk_69 (K1), Jeckyll_67 (K1), Joy99_67 (K1), Llorens_67 (K1), Lunahalos_67 (K1), MacKat_63 (K1), MeaningOfLife_68 (K1), Mynx_69 (K1), Padfoot_67 (K1), Padpat_70 (K1), Peel_67 (K1), Piatt_67 (K1), Pokerus_67 (K1), QuincyRose_65 (K1), Ramen_68 (K1), Rapunzel97_69 (K1), Rosmarinus_67 (K1), ShiaSurprise_68 (K1), Slimphazie_68 (K1), Spock_67 (K1), Tachez_67 (K1), Topper_67 (K1), TruffulaTree_68 (K1), Twitch_67 (K1), Validus_72 (K1), Zabiza_62 (K1), Zavala_70 (K1),

Start 43:

- Found in 25 of 174 (14.4%) of genes in pham
- Manual Annotations of this start: 22 of 147
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Auspice_5 (M1), Aziz_7 (M2), Bongo_5 (M1), Bricole_5 (M1), Diminimus_6 (M1), Dulcita_6 (M1), Estes_7 (M2), FreakyGoo_6 (M1), GardenSalsa_7 (M2), GenevaB15_7 (M2), Glaske16_6 (M1), IPhane7_5 (M1), Izel_6 (M1), KleverKiS_5 (M1), LilhomieP_5 (M1), MrMagoo_7 (M2), Nanosmite_6 (M3), PegLeg_5 (M1), Reindeer_4 (M1), Rey_6 (M2), RoseMarie_5 (M1), Skinny_6 (M1), SlimJimmy_5 (M1), TpudiCK_6 (M1), TyDawg_5 (M1),

Start 45:

- Found in 41 of 174 (23.6%) of genes in pham
- Manual Annotations of this start: 2 of 147
- Called 7.3% of time when present
- Phage (with cluster) where this start called: Bazzle_86 (L2), Chilliamps_219 (FC), SJReid_226 (FC),

Start 46:

- Found in 45 of 174 (25.9%) of genes in pham
- Manual Annotations of this start: 25 of 147
- Called 71.1% of time when present
- Phage (with cluster) where this start called: Archie_86 (L2), Arissanae_66 (A9), Chaser_88 (L4), ChutneyChips_90 (L4), Claus_87 (L2), Crossroads_89 (L2), Douge_90 (L4), Douzhi_90 (L4), DyoEdafos_92 (L4), Faith1_89 (L2), FarmResident_91 (L4), Gabriela_89 (L2), Gardann_89 (L2), GuuelaD_86 (L2), Itos_89 (L2), Kahlid_88 (L2), LilDestine_87 (L2), Loadrie_88 (L2), Lynnae_90 (L2), Nicholasp3_89 (L2), OverPar_91 (L2), Pharaoh_61 (A12), Rumpelstiltskin_85 (L2),

Sheng711_91 (L4), Toaka_68 (A9), Tourach_89 (L2), Underpass_81 (L2), Wigglewiggles_89 (L2), Wilder_90 (L2), Yecey3_71 (A9), Zakai_90 (L2), ZhongYanYuan_86 (L2),

Start 47:

- Found in 14 of 174 (8.0%) of genes in pham
- Manual Annotations of this start: 9 of 147
- Called 92.9% of time when present
- Phage (with cluster) where this start called: Aziz_6 (M2), Estes_6 (M2), FatCactus_61 (A20), GardenSalsa_6 (M2), GenevaB15_6 (M2), LilJank_73 (DU2), MrMagoo_6 (M2), Nanosmite_5 (M3), Phrampa_199 (FC), Rabbitrun_73 (DU2), Rockabye_208 (FC), SJReid_210 (FC), Trax_73 (DU2),

Start 48:

- Found in 7 of 174 (4.0%) of genes in pham
- Manual Annotations of this start: 7 of 147
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Fryberger_9 (DP), Guey18_12 (DP), NiceHouse_24 (CE), Peregrin_45 (CB), Ronaldo_13 (DP), Volt_13 (DP), Ziko_14 (DP),

Start 52:

- Found in 6 of 174 (3.4%) of genes in pham
- Manual Annotations of this start: 3 of 147
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Aegeus_58 (L5), Baudelaire_58 (L5), Jace_69 (singleton),

Start 53:

- Found in 16 of 174 (9.2%) of genes in pham
- Manual Annotations of this start: 11 of 147
- Called 75.0% of time when present
- Phage (with cluster) where this start called: CandC_51 (EG), Fregley_53 (EG), Kelcole_50 (EG), KillerQueen_53 (EG), Marcie_57 (EG), Myrna_56 (C2), OneinaGillian_52 (EG), Pepe25_51 (EG), RobinRose_54 (EG), Romm_54 (EG), ScoobyDoobyDoo_50 (C2), Tempo_52 (EG),

Start 54:

- Found in 1 of 174 (0.6%) of genes in pham
- Manual Annotations of this start: 1 of 147
- Called 100.0% of time when present
- Phage (with cluster) where this start called: PP_66 (A7),

Start 57:

- Found in 7 of 174 (4.0%) of genes in pham
- Manual Annotations of this start: 1 of 147
- Called 14.3% of time when present
- Phage (with cluster) where this start called: Bantam_116 (DL),

Start 58:

- Found in 9 of 174 (5.2%) of genes in pham
- Manual Annotations of this start: 2 of 147
- Called 33.3% of time when present

- Phage (with cluster) where this start called: Finemlucis_90 (L2), Kropertea_84 (L4), MkaliMitinis3_91 (L2),

Start 59:

- Found in 24 of 174 (13.8%) of genes in pham
- No Manual Annotations of this start.
- Called 4.2% of time when present
- Phage (with cluster) where this start called: BrainDrainer_91 (L4),

Start 61:

- Found in 4 of 174 (2.3%) of genes in pham
- Manual Annotations of this start: 1 of 147
- Called 25.0% of time when present
- Phage (with cluster) where this start called: Rey_5 (M2),

Start 62:

- Found in 26 of 174 (14.9%) of genes in pham
- Manual Annotations of this start: 1 of 147
- Called 23.1% of time when present
- Phage (with cluster) where this start called: Baoshan_86 (L2), DHan_92 (L2), DanBing_88 (L2), Hafay_89 (L2), Lewan_90 (L2), Rossetti_89 (L2),

Start 66:

- Found in 49 of 174 (28.2%) of genes in pham
- No Manual Annotations of this start.
- Called 4.1% of time when present
- Phage (with cluster) where this start called: PYPDinur_90 (L4), Quby_90 (L4),

Summary by clusters:

There are 20 clusters represented in this pham: A20, DL, M3, A12, CB, EG, L4, L5, singleton, K1, FC, L2, CE, A7, M2, A9, M1, DU2, C2, DP,

Info for manual annotations of cluster A12:

- Start number 46 was manually annotated 1 time for cluster A12.

Info for manual annotations of cluster A7:

- Start number 54 was manually annotated 1 time for cluster A7.

Info for manual annotations of cluster A9:

- Start number 46 was manually annotated 3 times for cluster A9.

Info for manual annotations of cluster C2:

- Start number 38 was manually annotated 1 time for cluster C2.
- Start number 53 was manually annotated 2 times for cluster C2.

Info for manual annotations of cluster CB:

- Start number 48 was manually annotated 1 time for cluster CB.

Info for manual annotations of cluster CE:

- Start number 48 was manually annotated 1 time for cluster CE.

Info for manual annotations of cluster DL:

- Start number 41 was manually annotated 3 times for cluster DL.
- Start number 57 was manually annotated 1 time for cluster DL.

Info for manual annotations of cluster DP:

- Start number 48 was manually annotated 5 times for cluster DP.

Info for manual annotations of cluster DU2:

- Start number 47 was manually annotated 2 times for cluster DU2.

Info for manual annotations of cluster EG:

- Start number 53 was manually annotated 9 times for cluster EG.

Info for manual annotations of cluster FC:

- Start number 45 was manually annotated 1 time for cluster FC.
- Start number 47 was manually annotated 1 time for cluster FC.

Info for manual annotations of cluster K1:

- Start number 42 was manually annotated 58 times for cluster K1.

Info for manual annotations of cluster L2:

- Start number 45 was manually annotated 1 time for cluster L2.
- Start number 46 was manually annotated 18 times for cluster L2.
- Start number 58 was manually annotated 2 times for cluster L2.
- Start number 62 was manually annotated 1 time for cluster L2.

Info for manual annotations of cluster L4:

- Start number 46 was manually annotated 3 times for cluster L4.

Info for manual annotations of cluster L5:

- Start number 52 was manually annotated 2 times for cluster L5.

Info for manual annotations of cluster M1:

- Start number 43 was manually annotated 15 times for cluster M1.

Info for manual annotations of cluster M2:

- Start number 43 was manually annotated 6 times for cluster M2.
- Start number 47 was manually annotated 5 times for cluster M2.
- Start number 61 was manually annotated 1 time for cluster M2.

Info for manual annotations of cluster M3:

- Start number 43 was manually annotated 1 time for cluster M3.
- Start number 47 was manually annotated 1 time for cluster M3.

Gene Information:

Gene: ActinUp_67 Start: 43706, Stop: 43945, Start Num: 42

Candidate Starts for ActinUp_67:

(31, 43655), (Start: 42 @43706 has 58 MA's), (51, 43730), (60, 43751), (72, 43778), (73, 43781), (97, 43880), (99, 43886),

Gene: Adephagia_67 Start: 43743, Stop: 43982, Start Num: 42

Candidate Starts for Adephagia_67:

(5, 43533), (7, 43542), (31, 43692), (Start: 42 @43743 has 58 MA's), (72, 43815), (73, 43818), (97, 43917), (99, 43923),

Gene: Adonis_67 Start: 43978, Stop: 44217, Start Num: 42

Candidate Starts for Adonis_67:

(Start: 42 @43978 has 58 MA's), (72, 44050), (73, 44053), (97, 44152), (99, 44158),

Gene: Aegeus_58 Start: 40986, Stop: 41207, Start Num: 52

Candidate Starts for Aegeus_58:

(Start: 52 @40986 has 3 MA's), (59, 41001), (Start: 61 @41007 has 1 MA's),

Gene: AlishaPH_67 Start: 44004, Stop: 44243, Start Num: 42

Candidate Starts for AlishaPH_67:

(5, 43794), (7, 43803), (31, 43953), (Start: 42 @44004 has 58 MA's), (72, 44076), (73, 44079), (97, 44178), (99, 44184),

Gene: Anaya_70 Start: 44697, Stop: 44936, Start Num: 42

Candidate Starts for Anaya_70:

(5, 44487), (7, 44496), (31, 44646), (Start: 42 @44697 has 58 MA's), (60, 44742), (64, 44751), (72, 44769), (96, 44868),

Gene: Archie_86 Start: 57063, Stop: 57242, Start Num: 46

Candidate Starts for Archie_86:

(Start: 45 @57057 has 2 MA's), (Start: 46 @57063 has 25 MA's), (Start: 62 @57102 has 1 MA's), (78, 57141), (87, 57168),

Gene: Arissanae_66 Start: 41220, Stop: 40978, Start Num: 46

Candidate Starts for Arissanae_66:

(Start: 46 @41220 has 25 MA's), (Start: 57 @41196 has 1 MA's), (65, 41178), (96, 41067),

Gene: Asayake_67 Start: 44058, Stop: 44297, Start Num: 42

Candidate Starts for Asayake_67:

(5, 43848), (7, 43857), (31, 44007), (Start: 42 @44058 has 58 MA's), (72, 44130), (73, 44133), (97, 44232), (99, 44238),

Gene: Atiba_68 Start: 43706, Stop: 43945, Start Num: 42

Candidate Starts for Atiba_68:

(5, 43496), (7, 43505), (31, 43655), (Start: 42 @43706 has 58 MA's), (72, 43778), (73, 43781), (97, 43880), (99, 43886),

Gene: Auspice_5 Start: 2366, Stop: 2133, Start Num: 43

Candidate Starts for Auspice_5:

(Start: 43 @2366 has 22 MA's), (51, 2348), (66, 2312), (69, 2306), (96, 2207), (99, 2198),

Gene: Aziz_6 Start: 2394, Stop: 2188, Start Num: 47

Candidate Starts for Aziz_6:

(Start: 47 @2394 has 9 MA's), (66, 2352), (79, 2316), (83, 2304),

Gene: Aziz_7 Start: 2636, Stop: 2391, Start Num: 43

Candidate Starts for Aziz_7:

(Start: 43 @2636 has 22 MA's), (66, 2579), (96, 2459), (97, 2456),

Gene: BEEST_67 Start: 44058, Stop: 44297, Start Num: 42

Candidate Starts for BEEST_67:

(5, 43848), (7, 43857), (31, 44007), (Start: 42 @44058 has 58 MA's), (72, 44130), (73, 44133), (97, 44232), (99, 44238),

Gene: BGlluviae_67 Start: 43861, Stop: 44100, Start Num: 42

Candidate Starts for BGlluviae_67:

(5, 43651), (7, 43660), (31, 43810), (Start: 42 @43861 has 58 MA's), (72, 43933), (73, 43936), (97, 44035), (99, 44041),

Gene: Bantam_116 Start: 73048, Stop: 73236, Start Num: 57

Candidate Starts for Bantam_116:

(Start: 41 @73009 has 3 MA's), (Start: 57 @73048 has 1 MA's), (104, 73207),

Gene: Baoshan_86 Start: 57756, Stop: 57896, Start Num: 62

Candidate Starts for Baoshan_86:

(17, 57603), (Start: 45 @57711 has 2 MA's), (Start: 46 @57717 has 25 MA's), (Start: 62 @57756 has 1 MA's), (63, 57759), (78, 57795), (87, 57822),

Gene: BarrelRoll_68 Start: 44144, Stop: 44383, Start Num: 42

Candidate Starts for BarrelRoll_68:

(5, 43934), (7, 43943), (31, 44093), (Start: 42 @44144 has 58 MA's), (51, 44168), (60, 44189), (72, 44216), (73, 44219), (97, 44318), (99, 44324),

Gene: Baudelaire_58 Start: 40986, Stop: 41207, Start Num: 52

Candidate Starts for Baudelaire_58:

(Start: 52 @40986 has 3 MA's), (59, 41001), (Start: 61 @41007 has 1 MA's),

Gene: Bazzle_86 Start: 57613, Stop: 57798, Start Num: 45

Candidate Starts for Bazzle_86:

(Start: 45 @57613 has 2 MA's), (Start: 46 @57619 has 25 MA's), (Start: 62 @57658 has 1 MA's), (78, 57697), (87, 57724),

Gene: Beezoo_69 Start: 44656, Stop: 44895, Start Num: 42

Candidate Starts for Beezoo_69:

(5, 44446), (7, 44455), (31, 44605), (Start: 42 @44656 has 58 MA's), (60, 44701), (72, 44728), (73, 44731), (97, 44830), (99, 44836),

Gene: Belladonna_67 Start: 43861, Stop: 44100, Start Num: 42

Candidate Starts for Belladonna_67:

(5, 43651), (7, 43660), (31, 43810), (Start: 42 @43861 has 58 MA's), (72, 43933), (73, 43936), (97, 44035), (99, 44041),

Gene: Blizzard_67 Start: 44058, Stop: 44297, Start Num: 42

Candidate Starts for Blizzard_67:

(5, 43848), (7, 43857), (31, 44007), (Start: 42 @44058 has 58 MA's), (72, 44130), (73, 44133), (97, 44232), (99, 44238),

Gene: Boiiii_67 Start: 44060, Stop: 44299, Start Num: 42

Candidate Starts for Boiiii_67:

(5, 43850), (7, 43859), (31, 44009), (Start: 42 @44060 has 58 MA's), (72, 44132), (73, 44135), (97, 44234), (99, 44240),

Gene: Bongo_5 Start: 2366, Stop: 2133, Start Num: 43

Candidate Starts for Bongo_5:

(Start: 43 @2366 has 22 MA's), (51, 2348), (66, 2312), (69, 2306), (96, 2207), (99, 2198),

Gene: BrainDrainer_91 Start: 57339, Stop: 57524, Start Num: 59

Candidate Starts for BrainDrainer_91:

(Start: 45 @57306 has 2 MA's), (Start: 46 @57312 has 25 MA's), (59, 57339), (60, 57342), (66, 57357), (99, 57477),

Gene: Bricole_5 Start: 2365, Stop: 2132, Start Num: 43

Candidate Starts for Bricole_5:

(Start: 43 @2365 has 22 MA's), (51, 2347), (66, 2311), (69, 2305), (96, 2206), (99, 2197),

Gene: CREW_67 Start: 43861, Stop: 44100, Start Num: 42

Candidate Starts for CREW_67:

(5, 43651), (7, 43660), (31, 43810), (Start: 42 @43861 has 58 MA's), (72, 43933), (73, 43936), (97, 44035), (99, 44041),

Gene: CallaLilly_67 Start: 43784, Stop: 44023, Start Num: 42

Candidate Starts for CallaLilly_67:

(5, 43574), (7, 43583), (31, 43733), (Start: 42 @43784 has 58 MA's), (72, 43856), (73, 43859), (97, 43958), (99, 43964),

Gene: CandC_51 Start: 36309, Stop: 36118, Start Num: 53

Candidate Starts for CandC_51:

(4, 36582), (8, 36531), (20, 36426), (37, 36351), (Start: 53 @36309 has 11 MA's), (82, 36234), (96, 36177),

Gene: Capricorn_67 Start: 43861, Stop: 44100, Start Num: 42

Candidate Starts for Capricorn_67:

(5, 43651), (7, 43660), (31, 43810), (Start: 42 @43861 has 58 MA's), (72, 43933), (73, 43936), (97, 44035), (99, 44041),

Gene: CaseJules_69 Start: 44058, Stop: 44297, Start Num: 42

Candidate Starts for CaseJules_69:

(5, 43848), (7, 43857), (31, 44007), (Start: 42 @44058 has 58 MA's), (72, 44130), (73, 44133), (97, 44232), (99, 44238),

Gene: Chaser_88 Start: 56443, Stop: 56652, Start Num: 46

Candidate Starts for Chaser_88:

(9, 56272), (17, 56329), (30, 56371), (34, 56401), (Start: 45 @56437 has 2 MA's), (Start: 46 @56443 has 25 MA's), (59, 56470), (60, 56473), (80, 56536), (89, 56554),

Gene: Chavito_70 Start: 44900, Stop: 45100, Start Num: 42

Candidate Starts for Chavito_70:

(5, 44693), (7, 44702), (31, 44849), (Start: 42 @44900 has 58 MA's), (60, 44918), (85, 44981), (96, 45032), (97, 45035), (99, 45041),

Gene: Chilliams_219 Start: 144486, Stop: 144719, Start Num: 45

Candidate Starts for Chilliams_219:

(Start: 45 @144486 has 2 MA's), (68, 144543), (98, 144642), (101, 144651),

Gene: ChutneyChips_90 Start: 57198, Stop: 57401, Start Num: 46
Candidate Starts for ChutneyChips_90:
(Start: 45 @57192 has 2 MA's), (Start: 46 @57198 has 25 MA's), (59, 57225), (66, 57243), (77, 57267),
(102, 57360),

Gene: Claus_87 Start: 57401, Stop: 57580, Start Num: 46
Candidate Starts for Claus_87:
(17, 57287), (27, 57320), (Start: 45 @57395 has 2 MA's), (Start: 46 @57401 has 25 MA's), (Start: 62
@57440 has 1 MA's), (78, 57479), (87, 57506),

Gene: Clipper_71 Start: 44760, Stop: 44999, Start Num: 42
Candidate Starts for Clipper_71:
(5, 44550), (7, 44559), (31, 44709), (Start: 42 @44760 has 58 MA's), (60, 44805), (72, 44832), (73,
44835), (97, 44934), (99, 44940),

Gene: CrimD_69 Start: 44683, Stop: 44892, Start Num: 42
Candidate Starts for CrimD_69:
(Start: 42 @44683 has 58 MA's), (96, 44824), (97, 44827), (99, 44833),

Gene: Crossroads_89 Start: 57560, Stop: 57739, Start Num: 46
Candidate Starts for Crossroads_89:
(16, 57431), (17, 57446), (19, 57455), (25, 57470), (Start: 45 @57554 has 2 MA's), (Start: 46 @57560
has 25 MA's), (Start: 62 @57599 has 1 MA's), (63, 57602), (87, 57665),

Gene: Curiosium_71 Start: 43377, Stop: 43622, Start Num: 42
Candidate Starts for Curiosium_71:
(31, 43326), (Start: 42 @43377 has 58 MA's), (72, 43449), (73, 43452), (91, 43521), (96, 43554), (107,
43614),

Gene: DHan_92 Start: 57819, Stop: 57959, Start Num: 62
Candidate Starts for DHan_92:
(Start: 45 @57774 has 2 MA's), (Start: 46 @57780 has 25 MA's), (Start: 62 @57819 has 1 MA's), (63,
57822), (78, 57858), (87, 57885),

Gene: Dalmuri_67 Start: 43861, Stop: 44100, Start Num: 42
Candidate Starts for Dalmuri_67:
(5, 43651), (7, 43660), (31, 43810), (Start: 42 @43861 has 58 MA's), (72, 43933), (73, 43936), (97,
44035), (99, 44041),

Gene: DanBing_88 Start: 57317, Stop: 57457, Start Num: 62
Candidate Starts for DanBing_88:
(17, 57164), (Start: 45 @57272 has 2 MA's), (Start: 46 @57278 has 25 MA's), (Start: 62 @57317 has 1
MA's), (63, 57320), (78, 57356), (87, 57383),

Gene: Daredevil_111 Start: 69987, Stop: 70223, Start Num: 41
Candidate Starts for Daredevil_111:
(Start: 41 @69987 has 3 MA's), (49, 70011), (92, 70125), (103, 70191), (104, 70194),

Gene: Diminimus_6 Start: 2365, Stop: 2132, Start Num: 43
Candidate Starts for Diminimus_6:
(Start: 43 @2365 has 22 MA's), (51, 2347), (66, 2311), (69, 2305), (96, 2206), (99, 2197),

Gene: Douge_90 Start: 56768, Stop: 56947, Start Num: 46

Candidate Starts for Douge_90:

(Start: 45 @56762 has 2 MA's), (Start: 46 @56768 has 25 MA's), (Start: 62 @56807 has 1 MA's), (63, 56810), (78, 56846), (87, 56873),

Gene: Douzhi_90 Start: 57001, Stop: 57213, Start Num: 46

Candidate Starts for Douzhi_90:

(Start: 45 @56995 has 2 MA's), (Start: 46 @57001 has 25 MA's), (59, 57028), (60, 57031), (66, 57046), (99, 57166),

Gene: Dulcita_6 Start: 2365, Stop: 2132, Start Num: 43

Candidate Starts for Dulcita_6:

(Start: 43 @2365 has 22 MA's), (51, 2347), (66, 2311), (69, 2305), (96, 2206), (99, 2197),

Gene: Durfee_67 Start: 44058, Stop: 44297, Start Num: 42

Candidate Starts for Durfee_67:

(5, 43848), (7, 43857), (31, 44007), (Start: 42 @44058 has 58 MA's), (72, 44130), (73, 44133), (97, 44232), (99, 44238),

Gene: DyoEdafos_92 Start: 57153, Stop: 57365, Start Num: 46

Candidate Starts for DyoEdafos_92:

(16, 57024), (17, 57039), (19, 57048), (24, 57060), (25, 57063), (34, 57111), (39, 57132), (Start: 45 @57147 has 2 MA's), (Start: 46 @57153 has 25 MA's), (59, 57180), (60, 57183), (66, 57198), (99, 57318),

Gene: Emerson_69 Start: 44178, Stop: 44417, Start Num: 42

Candidate Starts for Emerson_69:

(5, 43968), (7, 43977), (31, 44127), (Start: 42 @44178 has 58 MA's), (60, 44223), (72, 44250), (73, 44253), (97, 44352), (99, 44358),

Gene: Estes_7 Start: 2641, Stop: 2399, Start Num: 43

Candidate Starts for Estes_7:

(Start: 43 @2641 has 22 MA's), (66, 2584), (80, 2536), (96, 2470), (97, 2467),

Gene: Estes_6 Start: 2402, Stop: 2196, Start Num: 47

Candidate Starts for Estes_6:

(32, 2465), (40, 2423), (Start: 47 @2402 has 9 MA's), (66, 2360), (71, 2351), (83, 2312),

Gene: Faith1_89 Start: 57485, Stop: 57664, Start Num: 46

Candidate Starts for Faith1_89:

(16, 57356), (17, 57371), (19, 57380), (25, 57395), (Start: 45 @57479 has 2 MA's), (Start: 46 @57485 has 25 MA's), (Start: 62 @57524 has 1 MA's), (63, 57527), (87, 57590),

Gene: FarmResident_91 Start: 56713, Stop: 56925, Start Num: 46

Candidate Starts for FarmResident_91:

(16, 56584), (17, 56599), (19, 56608), (22, 56614), (25, 56623), (Start: 45 @56707 has 2 MA's), (Start: 46 @56713 has 25 MA's), (Start: 58 @56737 has 2 MA's), (59, 56740), (60, 56743), (66, 56758), (99, 56878),

Gene: FatCactus_61 Start: 39939, Stop: 39736, Start Num: 47

Candidate Starts for FatCactus_61:

(Start: 47 @39939 has 9 MA's),

Gene: Finemlucis_90 Start: 58613, Stop: 58783, Start Num: 58

Candidate Starts for Finemlucis_90:

(16, 58460), (17, 58475), (34, 58547), (Start: 45 @58583 has 2 MA's), (Start: 46 @58589 has 25 MA's), (Start: 58 @58613 has 2 MA's), (59, 58616), (99, 58736),

Gene: FreakyGoo_6 Start: 2366, Stop: 2133, Start Num: 43

Candidate Starts for FreakyGoo_6:

(Start: 43 @2366 has 22 MA's), (51, 2348), (66, 2312), (69, 2306), (96, 2207), (99, 2198),

Gene: Fregley_53 Start: 36870, Stop: 36679, Start Num: 53

Candidate Starts for Fregley_53:

(4, 37143), (8, 37092), (20, 36987), (37, 36912), (Start: 53 @36870 has 11 MA's), (82, 36795), (96, 36738),

Gene: Fryberger_9 Start: 2013, Stop: 1810, Start Num: 48

Candidate Starts for Fryberger_9:

(10, 2187), (12, 2178), (14, 2163), (33, 2067), (Start: 48 @2013 has 7 MA's), (59, 1989), (66, 1971), (69, 1965),

Gene: Gabriela_89 Start: 56831, Stop: 57010, Start Num: 46

Candidate Starts for Gabriela_89:

(16, 56702), (17, 56717), (19, 56726), (25, 56741), (Start: 45 @56825 has 2 MA's), (Start: 46 @56831 has 25 MA's), (Start: 62 @56870 has 1 MA's), (63, 56873), (87, 56936),

Gene: Ganymede_67 Start: 44084, Stop: 44323, Start Num: 42

Candidate Starts for Ganymede_67:

(5, 43874), (7, 43883), (31, 44033), (Start: 42 @44084 has 58 MA's), (60, 44129), (72, 44156), (73, 44159), (97, 44258), (99, 44264),

Gene: Gardann_89 Start: 57320, Stop: 57499, Start Num: 46

Candidate Starts for Gardann_89:

(16, 57191), (17, 57206), (19, 57215), (22, 57221), (25, 57230), (34, 57278), (36, 57284), (Start: 45 @57314 has 2 MA's), (Start: 46 @57320 has 25 MA's), (Start: 62 @57359 has 1 MA's), (78, 57398), (87, 57425),

Gene: GardenSalsa_6 Start: 2415, Stop: 2209, Start Num: 47

Candidate Starts for GardenSalsa_6:

(Start: 47 @2415 has 9 MA's), (66, 2373), (83, 2325),

Gene: GardenSalsa_7 Start: 2660, Stop: 2412, Start Num: 43

Candidate Starts for GardenSalsa_7:

(Start: 43 @2660 has 22 MA's), (66, 2603), (74, 2585), (80, 2549), (96, 2483),

Gene: GenevaB15_7 Start: 2636, Stop: 2391, Start Num: 43

Candidate Starts for GenevaB15_7:

(Start: 43 @2636 has 22 MA's), (66, 2579), (96, 2459), (97, 2456),

Gene: GenevaB15_6 Start: 2394, Stop: 2188, Start Num: 47

Candidate Starts for GenevaB15_6:

(Start: 47 @2394 has 9 MA's), (66, 2352), (79, 2316), (83, 2304),

Gene: Geraldini_70 Start: 44740, Stop: 44979, Start Num: 42

Candidate Starts for Geraldini_70:

(5, 44530), (7, 44539), (31, 44689), (Start: 42 @44740 has 58 MA's), (72, 44812), (73, 44815), (97, 44914), (99, 44920),

Gene: Glaske16_6 Start: 2365, Stop: 2132, Start Num: 43

Candidate Starts for Glaske16_6:

(Start: 43 @2365 has 22 MA's), (51, 2347), (66, 2311), (69, 2305), (96, 2206), (99, 2197),

Gene: Greely_63 Start: 23265, Stop: 23489, Start Num: 38

Candidate Starts for Greely_63:

(Start: 38 @23265 has 1 MA's), (Start: 57 @23304 has 1 MA's), (Start: 62 @23319 has 1 MA's), (96, 23427),

Gene: Guey18_12 Start: 2707, Stop: 2504, Start Num: 48

Candidate Starts for Guey18_12:

(10, 2881), (12, 2872), (14, 2857), (33, 2761), (Start: 48 @2707 has 7 MA's), (Start: 53 @2695 has 11 MA's), (59, 2683), (66, 2665), (69, 2659),

Gene: GuuelaD_86 Start: 57444, Stop: 57623, Start Num: 46

Candidate Starts for GuuelaD_86:

(Start: 45 @57438 has 2 MA's), (Start: 46 @57444 has 25 MA's), (Start: 62 @57483 has 1 MA's), (63, 57486), (78, 57522), (87, 57549),

Gene: Hafay_89 Start: 57435, Stop: 57575, Start Num: 62

Candidate Starts for Hafay_89:

(17, 57282), (27, 57315), (Start: 45 @57390 has 2 MA's), (Start: 46 @57396 has 25 MA's), (Start: 62 @57435 has 1 MA's), (78, 57474), (87, 57501),

Gene: HedwigODU_67 Start: 43706, Stop: 43945, Start Num: 42

Candidate Starts for HedwigODU_67:

(31, 43655), (Start: 42 @43706 has 58 MA's), (51, 43730), (60, 43751), (72, 43778), (73, 43781), (97, 43880), (99, 43886),

Gene: Homura_67 Start: 43861, Stop: 44100, Start Num: 42

Candidate Starts for Homura_67:

(5, 43651), (7, 43660), (31, 43810), (Start: 42 @43861 has 58 MA's), (72, 43933), (73, 43936), (97, 44035), (99, 44041),

Gene: Hyperbowlee_67 Start: 44058, Stop: 44297, Start Num: 42

Candidate Starts for Hyperbowlee_67:

(5, 43848), (7, 43857), (31, 44007), (Start: 42 @44058 has 58 MA's), (72, 44130), (73, 44133), (97, 44232), (99, 44238),

Gene: IPhane7_5 Start: 2366, Stop: 2133, Start Num: 43

Candidate Starts for IPhane7_5:

(Start: 43 @2366 has 22 MA's), (51, 2348), (66, 2312), (69, 2306), (96, 2207), (99, 2198),

Gene: Inky_67 Start: 43861, Stop: 44100, Start Num: 42

Candidate Starts for Inky_67:

(5, 43651), (7, 43660), (31, 43810), (Start: 42 @43861 has 58 MA's), (72, 43933), (73, 43936), (97, 44035), (99, 44041),

Gene: Itos_89 Start: 56391, Stop: 56570, Start Num: 46

Candidate Starts for Itos_89:

(16, 56262), (17, 56277), (19, 56286), (25, 56301), (Start: 45 @56385 has 2 MA's), (Start: 46 @56391 has 25 MA's), (Start: 62 @56430 has 1 MA's), (63, 56433), (87, 56496),

Gene: Izel_6 Start: 2365, Stop: 2132, Start Num: 43

Candidate Starts for Izel_6:

(Start: 43 @2365 has 22 MA's), (51, 2347), (66, 2311), (69, 2305), (96, 2206), (99, 2197),

Gene: Jace_69 Start: 40976, Stop: 41194, Start Num: 52

Candidate Starts for Jace_69:

(Start: 52 @40976 has 3 MA's), (66, 41009), (76, 41030), (96, 41126), (106, 41180),

Gene: Jarvi_67 Start: 43861, Stop: 44100, Start Num: 42

Candidate Starts for Jarvi_67:

(5, 43651), (7, 43660), (31, 43810), (Start: 42 @43861 has 58 MA's), (72, 43933), (73, 43936), (97, 44035), (99, 44041),

Gene: Jayhawk_69 Start: 44204, Stop: 44443, Start Num: 42

Candidate Starts for Jayhawk_69:

(5, 43994), (7, 44003), (31, 44153), (Start: 42 @44204 has 58 MA's), (51, 44228), (60, 44249), (72, 44276), (73, 44279), (97, 44378), (99, 44384),

Gene: Jeckyll_67 Start: 43861, Stop: 44100, Start Num: 42

Candidate Starts for Jeckyll_67:

(5, 43651), (7, 43660), (31, 43810), (Start: 42 @43861 has 58 MA's), (72, 43933), (73, 43936), (97, 44035), (99, 44041),

Gene: Joy99_67 Start: 43790, Stop: 44029, Start Num: 42

Candidate Starts for Joy99_67:

(5, 43580), (7, 43589), (31, 43739), (Start: 42 @43790 has 58 MA's), (72, 43862), (73, 43865), (97, 43964), (99, 43970),

Gene: Kahlid_88 Start: 57250, Stop: 57417, Start Num: 46

Candidate Starts for Kahlid_88:

(Start: 45 @57244 has 2 MA's), (Start: 46 @57250 has 25 MA's), (Start: 58 @57274 has 2 MA's), (59, 57277), (79, 57337), (80, 57343), (95, 57361), (96, 57364),

Gene: Kelcole_50 Start: 36504, Stop: 36310, Start Num: 53

Candidate Starts for Kelcole_50:

(4, 36777), (5, 36741), (8, 36726), (20, 36621), (37, 36546), (Start: 53 @36504 has 11 MA's), (82, 36429), (96, 36372),

Gene: KillerQueen_53 Start: 36753, Stop: 36562, Start Num: 53

Candidate Starts for KillerQueen_53:

(Start: 53 @36753 has 11 MA's), (82, 36678), (96, 36621),

Gene: KleverKiS_5 Start: 2362, Stop: 2132, Start Num: 43

Candidate Starts for KleverKiS_5:

(Start: 43 @2362 has 22 MA's), (51, 2344), (66, 2308), (69, 2302), (96, 2203), (99, 2194),

Gene: Kropertea_84 Start: 56457, Stop: 56645, Start Num: 58

Candidate Starts for Kropertea_84:

(Start: 45 @56427 has 2 MA's), (Start: 46 @56433 has 25 MA's), (Start: 58 @56457 has 2 MA's), (59, 56460), (60, 56463), (66, 56478), (99, 56598),

Gene: Lewan_90 Start: 57483, Stop: 57623, Start Num: 62

Candidate Starts for Lewan_90:

(17, 57330), (25, 57354), (Start: 45 @57438 has 2 MA's), (Start: 46 @57444 has 25 MA's), (Start: 62 @57483 has 1 MA's), (78, 57522), (87, 57549),

Gene: LilDestine_87 Start: 57157, Stop: 57336, Start Num: 46

Candidate Starts for LilDestine_87:

(Start: 45 @57151 has 2 MA's), (Start: 46 @57157 has 25 MA's), (Start: 62 @57196 has 1 MA's), (63, 57199), (78, 57235), (87, 57262),

Gene: LilJank_73 Start: 46004, Stop: 46207, Start Num: 47

Candidate Starts for LilJank_73:

(Start: 47 @46004 has 9 MA's), (51, 46013), (Start: 52 @46016 has 3 MA's), (55, 46022), (Start: 57 @46025 has 1 MA's), (103, 46175), (104, 46178), (107, 46199),

Gene: LilhomieP_5 Start: 2366, Stop: 2133, Start Num: 43

Candidate Starts for LilhomieP_5:

(Start: 43 @2366 has 22 MA's), (51, 2348), (66, 2312), (69, 2306), (96, 2207), (99, 2198),

Gene: Llorens_67 Start: 43861, Stop: 44100, Start Num: 42

Candidate Starts for Llorens_67:

(5, 43651), (7, 43660), (31, 43810), (Start: 42 @43861 has 58 MA's), (72, 43933), (73, 43936), (97, 44035), (99, 44041),

Gene: Loadrie_88 Start: 57652, Stop: 57831, Start Num: 46

Candidate Starts for Loadrie_88:

(16, 57523), (17, 57538), (19, 57547), (25, 57562), (Start: 45 @57646 has 2 MA's), (Start: 46 @57652 has 25 MA's), (Start: 62 @57691 has 1 MA's), (63, 57694), (87, 57757),

Gene: Lunahalos_67 Start: 43861, Stop: 44100, Start Num: 42

Candidate Starts for Lunahalos_67:

(5, 43651), (7, 43660), (31, 43810), (Start: 42 @43861 has 58 MA's), (72, 43933), (73, 43936), (97, 44035), (99, 44041),

Gene: Lynnae_90 Start: 57262, Stop: 57429, Start Num: 46

Candidate Starts for Lynnae_90:

(Start: 45 @57256 has 2 MA's), (Start: 46 @57262 has 25 MA's), (Start: 58 @57286 has 2 MA's), (59, 57289), (79, 57349), (80, 57355), (95, 57373), (96, 57376),

Gene: MacKat_63 Start: 39644, Stop: 39883, Start Num: 42

Candidate Starts for MacKat_63:

(5, 39434), (7, 39443), (31, 39593), (Start: 42 @39644 has 58 MA's), (60, 39689), (72, 39716), (73, 39719), (97, 39818), (99, 39824),

Gene: Marcie_57 Start: 37372, Stop: 37181, Start Num: 53

Candidate Starts for Marcie_57:

(Start: 53 @37372 has 11 MA's), (96, 37240),

Gene: MeaningOfLife_68 Start: 44613, Stop: 44852, Start Num: 42

Candidate Starts for MeaningOfLife_68:

(5, 44403), (7, 44412), (31, 44562), (Start: 42 @44613 has 58 MA's), (51, 44637), (60, 44658), (72, 44685), (73, 44688), (97, 44787), (99, 44793),

Gene: MkaliMitinis3_91 Start: 57639, Stop: 57782, Start Num: 58
Candidate Starts for MkaliMitinis3_91:
(11, 57450), (13, 57471), (16, 57486), (17, 57501), (34, 57573), (36, 57579), (Start: 45 @57609 has 2 MA's), (Start: 46 @57615 has 25 MA's), (Start: 58 @57639 has 2 MA's), (59, 57642), (79, 57702), (80, 57708), (95, 57726), (96, 57729),

Gene: MrMagoo_7 Start: 2660, Stop: 2412, Start Num: 43
Candidate Starts for MrMagoo_7:
(Start: 43 @2660 has 22 MA's), (66, 2603), (74, 2585), (80, 2549), (96, 2483),

Gene: MrMagoo_6 Start: 2415, Stop: 2209, Start Num: 47
Candidate Starts for MrMagoo_6:
(Start: 47 @2415 has 9 MA's), (66, 2373), (83, 2325),

Gene: Mynx_69 Start: 44473, Stop: 44712, Start Num: 42
Candidate Starts for Mynx_69:
(5, 44263), (7, 44272), (31, 44422), (Start: 42 @44473 has 58 MA's), (51, 44497), (60, 44518), (72, 44545), (73, 44548), (97, 44647), (99, 44653),

Gene: Myrna_58 Start: 22613, Stop: 22840, Start Num: 38
Candidate Starts for Myrna_58:
(26, 22553), (28, 22562), (37, 22607), (Start: 38 @22613 has 1 MA's),

Gene: Myrna_56 Start: 22168, Stop: 22353, Start Num: 53
Candidate Starts for Myrna_56:
(15, 22015), (Start: 53 @22168 has 11 MA's), (Start: 61 @22177 has 1 MA's), (93, 22255),

Gene: Nanosmite_6 Start: 2681, Stop: 2448, Start Num: 43
Candidate Starts for Nanosmite_6:
(Start: 43 @2681 has 22 MA's), (66, 2624), (67, 2621), (88, 2564), (96, 2519),

Gene: Nanosmite_5 Start: 2451, Stop: 2248, Start Num: 47
Candidate Starts for Nanosmite_5:
(32, 2514), (40, 2472), (Start: 47 @2451 has 9 MA's), (59, 2427),

Gene: NiceHouse_24 Start: 11340, Stop: 11110, Start Num: 48
Candidate Starts for NiceHouse_24:
(Start: 48 @11340 has 7 MA's), (63, 11304), (69, 11292), (94, 11208), (99, 11181),

Gene: Nicholasp3_89 Start: 57320, Stop: 57499, Start Num: 46
Candidate Starts for Nicholasp3_89:
(16, 57191), (17, 57206), (19, 57215), (22, 57221), (25, 57230), (34, 57278), (36, 57284), (Start: 45 @57314 has 2 MA's), (Start: 46 @57320 has 25 MA's), (Start: 62 @57359 has 1 MA's), (78, 57398), (87, 57425),

Gene: OneinaGillian_52 Start: 36406, Stop: 36215, Start Num: 53
Candidate Starts for OneinaGillian_52:
(4, 36679), (8, 36628), (20, 36523), (37, 36448), (Start: 53 @36406 has 11 MA's), (82, 36331), (96, 36274),

Gene: OverPar_91 Start: 57652, Stop: 57831, Start Num: 46
Candidate Starts for OverPar_91:

(16, 57523), (17, 57538), (19, 57547), (25, 57562), (Start: 45 @57646 has 2 MA's), (Start: 46 @57652 has 25 MA's), (Start: 62 @57691 has 1 MA's), (63, 57694), (87, 57757),

Gene: PP_66 Start: 45311, Stop: 45114, Start Num: 54

Candidate Starts for PP_66:

(50, 45320), (Start: 54 @45311 has 1 MA's), (70, 45284), (96, 45182), (97, 45179),

Gene: PYPDinur_90 Start: 57609, Stop: 57776, Start Num: 66

Candidate Starts for PYPDinur_90:

(Start: 45 @57558 has 2 MA's), (Start: 46 @57564 has 25 MA's), (59, 57591), (60, 57594), (66, 57609), (99, 57729),

Gene: Padfoot_67 Start: 44058, Stop: 44297, Start Num: 42

Candidate Starts for Padfoot_67:

(5, 43848), (7, 43857), (31, 44007), (Start: 42 @44058 has 58 MA's), (72, 44130), (73, 44133), (97, 44232), (99, 44238),

Gene: Padpat_70 Start: 44178, Stop: 44417, Start Num: 42

Candidate Starts for Padpat_70:

(5, 43968), (7, 43977), (31, 44127), (Start: 42 @44178 has 58 MA's), (60, 44223), (72, 44250), (73, 44253), (97, 44352), (99, 44358),

Gene: Peel_67 Start: 43863, Stop: 44102, Start Num: 42

Candidate Starts for Peel_67:

(5, 43653), (7, 43662), (31, 43812), (Start: 42 @43863 has 58 MA's), (72, 43935), (73, 43938), (97, 44037), (99, 44043),

Gene: PegLeg_5 Start: 2365, Stop: 2132, Start Num: 43

Candidate Starts for PegLeg_5:

(Start: 43 @2365 has 22 MA's), (51, 2347), (66, 2311), (69, 2305), (96, 2206), (99, 2197),

Gene: Pepe25_51 Start: 35948, Stop: 35757, Start Num: 53

Candidate Starts for Pepe25_51:

(Start: 53 @35948 has 11 MA's), (82, 35873), (96, 35816), (105, 35786),

Gene: Peregrin_45 Start: 15804, Stop: 15583, Start Num: 48

Candidate Starts for Peregrin_45:

(Start: 48 @15804 has 7 MA's), (84, 15705), (90, 15690), (99, 15648),

Gene: Pharaoh_61 Start: 40405, Stop: 40172, Start Num: 46

Candidate Starts for Pharaoh_61:

(44, 40411), (Start: 46 @40405 has 25 MA's), (60, 40372), (66, 40357), (96, 40249), (97, 40246), (99, 40240),

Gene: Phrampa_199 Start: 141698, Stop: 141910, Start Num: 47

Candidate Starts for Phrampa_199:

(Start: 47 @141698 has 9 MA's), (66, 141740), (75, 141761), (97, 141848),

Gene: Piatt_67 Start: 44058, Stop: 44297, Start Num: 42

Candidate Starts for Piatt_67:

(5, 43848), (7, 43857), (31, 44007), (Start: 42 @44058 has 58 MA's), (72, 44130), (73, 44133), (97, 44232), (99, 44238),

Gene: Pokerus_67 Start: 44203, Stop: 44442, Start Num: 42

Candidate Starts for Pokerus_67:

(5, 43993), (7, 44002), (31, 44152), (Start: 42 @44203 has 58 MA's), (60, 44248), (72, 44275), (73, 44278), (97, 44377), (99, 44383),

Gene: Quby_90 Start: 56844, Stop: 57011, Start Num: 66

Candidate Starts for Quby_90:

(Start: 46 @56799 has 25 MA's), (Start: 58 @56823 has 2 MA's), (59, 56826), (60, 56829), (66, 56844), (99, 56964),

Gene: QuincyRose_65 Start: 44084, Stop: 44323, Start Num: 42

Candidate Starts for QuincyRose_65:

(5, 43874), (7, 43883), (31, 44033), (Start: 42 @44084 has 58 MA's), (60, 44129), (72, 44156), (73, 44159), (97, 44258), (99, 44264),

Gene: Rabbitrun_73 Start: 44915, Stop: 45124, Start Num: 47

Candidate Starts for Rabbitrun_73:

(Start: 47 @44915 has 9 MA's), (Start: 52 @44927 has 3 MA's), (65, 44957), (91, 45020), (100, 45065),

Gene: Ramen_68 Start: 43708, Stop: 43947, Start Num: 42

Candidate Starts for Ramen_68:

(31, 43657), (Start: 42 @43708 has 58 MA's), (51, 43732), (60, 43753), (72, 43780), (73, 43783), (97, 43882), (99, 43888),

Gene: Rapunzel97_69 Start: 44159, Stop: 44398, Start Num: 42

Candidate Starts for Rapunzel97_69:

(5, 43949), (7, 43958), (31, 44108), (Start: 42 @44159 has 58 MA's), (51, 44183), (60, 44204), (72, 44231), (73, 44234), (97, 44333), (99, 44339),

Gene: Reindeer_4 Start: 2200, Stop: 1967, Start Num: 43

Candidate Starts for Reindeer_4:

(6, 2410), (Start: 43 @2200 has 22 MA's), (66, 2146), (69, 2140), (96, 2038), (99, 2029),

Gene: Rey_5 Start: 2370, Stop: 2203, Start Num: 61

Candidate Starts for Rey_5:

(32, 2466), (40, 2424), (Start: 47 @2403 has 9 MA's), (Start: 61 @2370 has 1 MA's), (66, 2358), (79, 2322), (83, 2310),

Gene: Rey_6 Start: 2648, Stop: 2400, Start Num: 43

Candidate Starts for Rey_6:

(Start: 43 @2648 has 22 MA's), (66, 2591), (74, 2573), (96, 2471),

Gene: RobinRose_54 Start: 36915, Stop: 36724, Start Num: 53

Candidate Starts for RobinRose_54:

(4, 37188), (8, 37137), (20, 37032), (37, 36957), (Start: 53 @36915 has 11 MA's), (82, 36840), (96, 36783),

Gene: Rockabye_208 Start: 136558, Stop: 136761, Start Num: 47

Candidate Starts for Rockabye_208:

(Start: 47 @136558 has 9 MA's),

Gene: Romm_54 Start: 36915, Stop: 36724, Start Num: 53

Candidate Starts for Romm_54:

(4, 37188), (8, 37137), (20, 37032), (37, 36957), (Start: 53 @36915 has 11 MA's), (82, 36840), (96, 36783),

Gene: Ronaldo_13 Start: 3139, Stop: 2936, Start Num: 48

Candidate Starts for Ronaldo_13:

(Start: 48 @3139 has 7 MA's), (Start: 53 @3127 has 11 MA's), (59, 3115), (66, 3097), (69, 3091), (81, 3052),

Gene: RoseMarie_5 Start: 2362, Stop: 2132, Start Num: 43

Candidate Starts for RoseMarie_5:

(Start: 43 @2362 has 22 MA's), (51, 2344), (66, 2308), (69, 2302), (96, 2203), (99, 2194),

Gene: Rosmarinus_67 Start: 43849, Stop: 44088, Start Num: 42

Candidate Starts for Rosmarinus_67:

(5, 43639), (7, 43648), (31, 43798), (Start: 42 @43849 has 58 MA's), (72, 43921), (73, 43924), (97, 44023), (99, 44029),

Gene: Rossetti_89 Start: 57710, Stop: 57850, Start Num: 62

Candidate Starts for Rossetti_89:

(16, 57545), (17, 57560), (22, 57575), (34, 57632), (Start: 46 @57674 has 25 MA's), (Start: 62 @57710 has 1 MA's), (78, 57749), (87, 57776),

Gene: Rumpelstiltskin_85 Start: 57113, Stop: 57292, Start Num: 46

Candidate Starts for Rumpelstiltskin_85:

(16, 56984), (17, 56999), (19, 57008), (22, 57014), (25, 57023), (34, 57071), (36, 57077), (Start: 45 @57107 has 2 MA's), (Start: 46 @57113 has 25 MA's), (Start: 62 @57152 has 1 MA's), (78, 57191), (87, 57218),

Gene: SJReid_210 Start: 135453, Stop: 135656, Start Num: 47

Candidate Starts for SJReid_210:

(Start: 47 @135453 has 9 MA's), (66, 135489), (86, 135549), (97, 135600),

Gene: SJReid_226 Start: 142221, Stop: 142508, Start Num: 45

Candidate Starts for SJReid_226:

(Start: 45 @142221 has 2 MA's), (56, 142248), (68, 142278),

Gene: ScoobyDoobyDoo_50 Start: 17925, Stop: 18128, Start Num: 53

Candidate Starts for ScoobyDoobyDoo_50:

(35, 17868), (Start: 53 @17925 has 11 MA's), (63, 17949), (88, 18018), (108, 18108), (109, 18120),

Gene: Sheng711_91 Start: 57040, Stop: 57252, Start Num: 46

Candidate Starts for Sheng711_91:

(Start: 45 @57034 has 2 MA's), (Start: 46 @57040 has 25 MA's), (59, 57067), (60, 57070), (66, 57085), (99, 57205),

Gene: ShiaSurprise_68 Start: 44058, Stop: 44297, Start Num: 42

Candidate Starts for ShiaSurprise_68:

(5, 43848), (7, 43857), (31, 44007), (Start: 42 @44058 has 58 MA's), (72, 44130), (73, 44133), (97, 44232), (99, 44238),

Gene: Skinny_6 Start: 2365, Stop: 2132, Start Num: 43

Candidate Starts for Skinny_6:

(Start: 43 @2365 has 22 MA's), (51, 2347), (66, 2311), (69, 2305), (96, 2206), (99, 2197),

Gene: SlimJimmy_5 Start: 2365, Stop: 2132, Start Num: 43

Candidate Starts for SlimJimmy_5:

(Start: 43 @2365 has 22 MA's), (51, 2347), (66, 2311), (69, 2305), (96, 2206), (99, 2197),

Gene: Slimphazie_68 Start: 44159, Stop: 44398, Start Num: 42

Candidate Starts for Slimphazie_68:

(5, 43949), (7, 43958), (31, 44108), (Start: 42 @44159 has 58 MA's), (51, 44183), (60, 44204), (72, 44231), (73, 44234), (97, 44333), (99, 44339),

Gene: SpeedDemon_1180 Start: 76063, Stop: 76290, Start Num: 41

Candidate Starts for SpeedDemon_1180:

(Start: 41 @76063 has 3 MA's), (Start: 57 @76102 has 1 MA's), (104, 76261),

Gene: Spock_67 Start: 43862, Stop: 44101, Start Num: 42

Candidate Starts for Spock_67:

(5, 43652), (7, 43661), (31, 43811), (Start: 42 @43862 has 58 MA's), (72, 43934), (73, 43937), (97, 44036), (99, 44042),

Gene: Tachez_67 Start: 43706, Stop: 43945, Start Num: 42

Candidate Starts for Tachez_67:

(5, 43496), (7, 43505), (31, 43655), (Start: 42 @43706 has 58 MA's), (72, 43778), (73, 43781), (97, 43880), (99, 43886),

Gene: Tempo_52 Start: 36794, Stop: 36603, Start Num: 53

Candidate Starts for Tempo_52:

(Start: 53 @36794 has 11 MA's), (82, 36719), (96, 36662),

Gene: Toaka_68 Start: 40924, Stop: 40682, Start Num: 46

Candidate Starts for Toaka_68:

(1, 41545), (2, 41500), (3, 41248), (Start: 46 @40924 has 25 MA's), (55, 40903), (96, 40771),

Gene: Topper_67 Start: 43861, Stop: 44100, Start Num: 42

Candidate Starts for Topper_67:

(5, 43651), (7, 43660), (31, 43810), (Start: 42 @43861 has 58 MA's), (72, 43933), (73, 43936), (97, 44035), (99, 44041),

Gene: Tourach_89 Start: 58025, Stop: 58204, Start Num: 46

Candidate Starts for Tourach_89:

(16, 57896), (17, 57911), (19, 57920), (34, 57983), (Start: 45 @58019 has 2 MA's), (Start: 46 @58025 has 25 MA's), (Start: 62 @58064 has 1 MA's), (63, 58067), (78, 58103), (87, 58130),

Gene: Towmatter_111 Start: 70068, Stop: 70304, Start Num: 41

Candidate Starts for Towmatter_111:

(Start: 41 @70068 has 3 MA's), (49, 70092), (92, 70206), (103, 70272), (104, 70275),

Gene: TpudiCK_6 Start: 2365, Stop: 2132, Start Num: 43

Candidate Starts for TpudiCK_6:

(Start: 43 @2365 has 22 MA's), (51, 2347), (66, 2311), (69, 2305), (96, 2206), (99, 2197),

Gene: Trax_73 Start: 45629, Stop: 45832, Start Num: 47

Candidate Starts for Trax_73:

(Start: 47 @45629 has 9 MA's), (51, 45638), (Start: 52 @45641 has 3 MA's), (55, 45647), (Start: 57 @45650 has 1 MA's), (103, 45800), (104, 45803), (107, 45824),

Gene: TruffulaTree_68 Start: 44155, Stop: 44394, Start Num: 42

Candidate Starts for TruffulaTree_68:

(5, 43945), (7, 43954), (31, 44104), (Start: 42 @44155 has 58 MA's), (51, 44179), (60, 44200), (72, 44227), (73, 44230), (97, 44329), (99, 44335),

Gene: Twitch_67 Start: 43863, Stop: 44102, Start Num: 42

Candidate Starts for Twitch_67:

(5, 43653), (7, 43662), (31, 43812), (Start: 42 @43863 has 58 MA's), (72, 43935), (73, 43938), (97, 44037), (99, 44043),

Gene: TyDawg_5 Start: 2366, Stop: 2133, Start Num: 43

Candidate Starts for TyDawg_5:

(Start: 43 @2366 has 22 MA's), (51, 2348), (66, 2312), (69, 2306), (96, 2207), (99, 2198),

Gene: Underpass_81 Start: 52356, Stop: 52535, Start Num: 46

Candidate Starts for Underpass_81:

(16, 52227), (17, 52242), (19, 52251), (22, 52257), (25, 52266), (34, 52314), (36, 52320), (Start: 45 @52350 has 2 MA's), (Start: 46 @52356 has 25 MA's), (Start: 62 @52395 has 1 MA's), (78, 52434), (87, 52461),

Gene: Validus_72 Start: 44730, Stop: 44951, Start Num: 42

Candidate Starts for Validus_72:

(31, 44679), (Start: 42 @44730 has 58 MA's), (60, 44748), (91, 44838), (96, 44871), (99, 44880),

Gene: Volt_13 Start: 3139, Stop: 2936, Start Num: 48

Candidate Starts for Volt_13:

(Start: 48 @3139 has 7 MA's), (Start: 53 @3127 has 11 MA's), (59, 3115), (66, 3097), (69, 3091), (81, 3052),

Gene: Wigglewiggles_89 Start: 57408, Stop: 57575, Start Num: 46

Candidate Starts for Wigglewiggles_89:

(11, 57243), (13, 57264), (16, 57279), (17, 57294), (34, 57366), (36, 57372), (Start: 45 @57402 has 2 MA's), (Start: 46 @57408 has 25 MA's), (Start: 58 @57432 has 2 MA's), (59, 57435), (79, 57495), (80, 57501), (95, 57519), (96, 57522),

Gene: Wilder_90 Start: 57250, Stop: 57417, Start Num: 46

Candidate Starts for Wilder_90:

(Start: 45 @57244 has 2 MA's), (Start: 46 @57250 has 25 MA's), (Start: 58 @57274 has 2 MA's), (59, 57277), (79, 57337), (80, 57343), (95, 57361), (96, 57364),

Gene: Yecey3_71 Start: 41130, Stop: 40897, Start Num: 46

Candidate Starts for Yecey3_71:

(18, 41235), (21, 41229), (22, 41226), (23, 41223), (29, 41205), (Start: 46 @41130 has 25 MA's), (55, 41109), (Start: 57 @41106 has 1 MA's), (88, 41022), (96, 40977), (97, 40974),

Gene: Zabiza_62 Start: 40011, Stop: 40250, Start Num: 42

Candidate Starts for Zabiza_62:

(31, 39960), (Start: 42 @40011 has 58 MA's), (51, 40035), (60, 40056), (72, 40083), (73, 40086), (97, 40185), (99, 40191),

Gene: Zakai_90 Start: 57893, Stop: 58072, Start Num: 46

Candidate Starts for Zakai_90:

(16, 57764), (17, 57779), (19, 57788), (25, 57803), (Start: 45 @57887 has 2 MA's), (Start: 46 @57893 has 25 MA's), (Start: 62 @57932 has 1 MA's), (63, 57935), (87, 57998),

Gene: Zavala_70 Start: 44433, Stop: 44672, Start Num: 42

Candidate Starts for Zavala_70:

(5, 44223), (7, 44232), (31, 44382), (Start: 42 @44433 has 58 MA's), (51, 44457), (60, 44478), (72, 44505), (73, 44508), (97, 44607), (99, 44613),

Gene: ZhongYanYuan_86 Start: 57300, Stop: 57479, Start Num: 46

Candidate Starts for ZhongYanYuan_86:

(Start: 45 @57294 has 2 MA's), (Start: 46 @57300 has 25 MA's), (Start: 62 @57339 has 1 MA's), (63, 57342), (78, 57378), (87, 57405),

Gene: Ziko_14 Start: 3153, Stop: 2950, Start Num: 48

Candidate Starts for Ziko_14:

(Start: 48 @3153 has 7 MA's), (Start: 53 @3141 has 11 MA's), (59, 3129), (66, 3111), (69, 3105), (81, 3066),