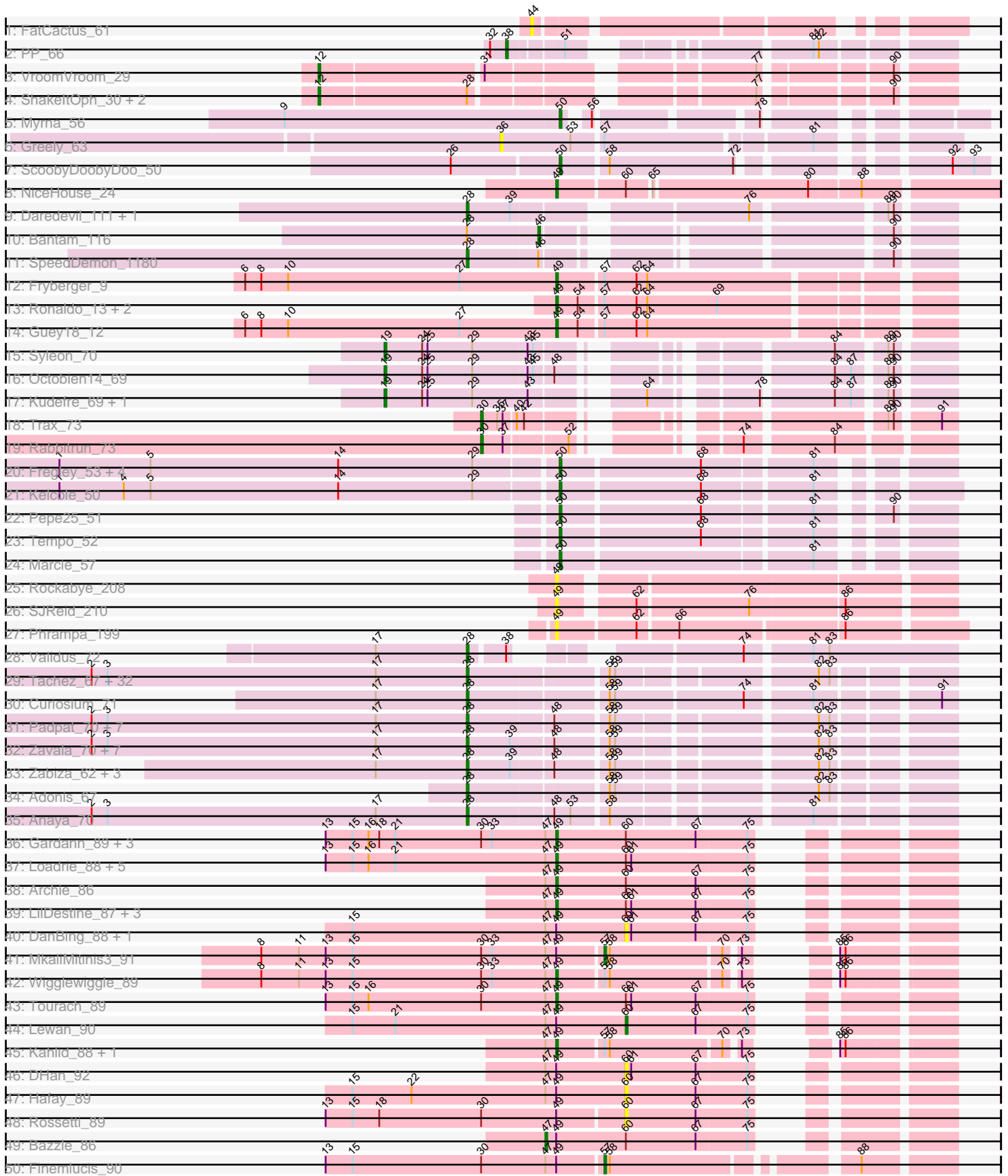
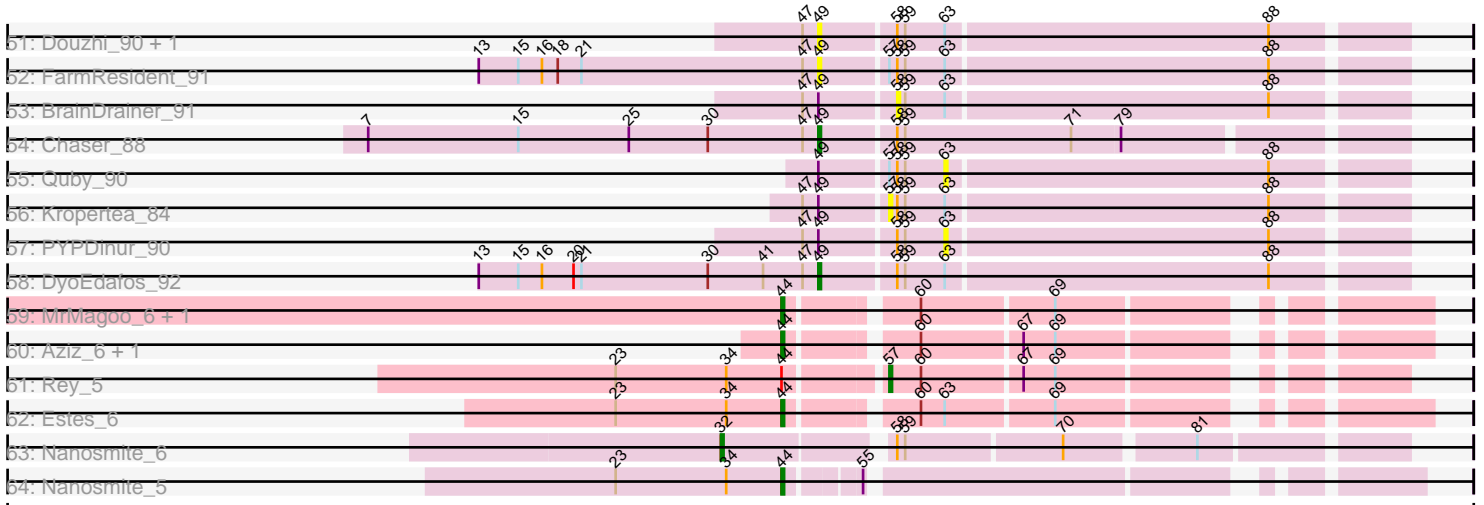


Pham 224380



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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 224380 Report

This analysis was run 03/28/25 on database version 593.

Pham number 224380 has 139 members, 26 are drafts.

Phages represented in each track:

- Track 1 : FatCactus_61
- Track 2 : PP_66
- Track 3 : VroomVroom_29
- Track 4 : ShakeltOph_30, JasmineDragon_29, MiniMommy_30
- Track 5 : Myrna_56
- Track 6 : Greely_63
- Track 7 : ScoobyDoobyDoo_50
- Track 8 : NiceHouse_24
- Track 9 : Daredevil_111, Towmatter_114
- Track 10 : Bantam_116
- Track 11 : SpeedDemon_1180
- Track 12 : Fryberger_9
- Track 13 : Ronaldo_13, Ziko_14, Volt_13
- Track 14 : Guey18_12
- Track 15 : Syleon_70
- Track 16 : Octobien14_69
- Track 17 : Kudrefre_69, Sephiroth_68
- Track 18 : Trax_73
- Track 19 : Rabbitrun_73
- Track 20 : Fregley_53, Romm_54, RobinRose_54, CandC_51, OneinaGillian_52
- Track 21 : Kelcole_50
- Track 22 : Pepe25_51
- Track 23 : Tempo_52
- Track 24 : Marcie_57
- Track 25 : Rockabye_208
- Track 26 : SJReid_210
- Track 27 : Phrampa_199
- Track 28 : Validus_72
- Track 29 : Tachez_67, BGlluviae_67, Jarvi_67, Blizzard_67, Llorens_67, Adephagia_67, Hyperbowlee_67, CaseJules_69, Homura_67, Spock_67, Rosmarinus_67, ShiaSurprise_68, Joy99_67, Boiiii_67, Durfee_67, Piatt_67, Capricorn_67, Peel_67, Belladonna_67, Atiba_68, Padfoot_67, Topper_67, Dalmuri_67, Inky_67, Asayake_67, CallaLilly_69, Jeckyll_67, Twitch_67, Lunahalos_67, AlishaPH_67, CREW_67, BEEST_67, Geraldini_70
- Track 30 : Curiosium_71
- Track 31 : Padpat_70, Emerson_69, Clipper_72, Pokerus_67, QuincyRose_65, Beezoo_69, Ganymede_67, MacKat_63

- Track 32 : Zavala_70, BarrelRoll_68, Rapunzel97_69, TruffulaTree_68, Slimphazie_68, Mynx_69, Jayhawk_69, MeaningOfLife_68
- Track 33 : Zabiza_62, Ramen_68, ActinUp_67, HedwigODU_67
- Track 34 : Adonis_67
- Track 35 : Anaya_70
- Track 36 : Gardann_89, Nicholasp3_89, Rumpelstiltskin_85, Underpass_79
- Track 37 : Loadrie_88, Faith1_89, Zakai_90, Itos_89, Crossroads_89, Gabriela_89
- Track 38 : Archie_86
- Track 39 : LilDestine_87, GuuelaD_86, Douge_90, ZhongYanYuan_86
- Track 40 : DanBing_88, Baoshan_86
- Track 41 : MkaliMitinis3_91
- Track 42 : Wigglewiggle_89
- Track 43 : Tourach_89
- Track 44 : Lewan_90
- Track 45 : Kahlid_88, Wilder_90
- Track 46 : DHan_92
- Track 47 : Hafay_89
- Track 48 : Rossetti_89
- Track 49 : Bazzle_86
- Track 50 : Finemlucis_90
- Track 51 : Douzhi_90, Sheng711_91
- Track 52 : FarmResident_91
- Track 53 : BrainDrainer_91
- Track 54 : Chaser_88
- Track 55 : Quby_90
- Track 56 : Kropertea_84
- Track 57 : PYPDinur_90
- Track 58 : DyoEdafos_92
- Track 59 : MrMagoo_6, GardenSalsa_6
- Track 60 : Aziz_6, GenevaB15_6
- Track 61 : Rey_5
- Track 62 : Estes_6
- Track 63 : Nanosmite_6
- Track 64 : Nanosmite_5

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

The start number called the most often in the published annotations is 28, it was called in 56 of the 113 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, BGIlluviae_67, BarrelRoll_68, Beezoo_69, Belladonna_67, Blizzard_67, Boiiii_67, CREW_67, CallaLilly_69, Capricorn_67, CaseJules_69, Clipper_72, Curiosium_71, Dalmuri_67, Daredevil_111, 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, SpeedDemon_1180, Spock_67,

Tachez_67, Topper_67, Towmatter_114, TruffulaTree_68, Twitch_67, Validus_72, Zabiza_62, Zavala_70,

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

- Bantam_116, JasmineDragon_29, MiniMommy_30, ShakeltOph_30,

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

- Archie_86, Aziz_6, Baoshan_86, Bazzle_86, BrainDrainer_91, CandC_51, Chaser_88, Crossroads_89, DHan_92, DanBing_88, Douge_90, Douzhi_90, DyoEdafos_92, Estes_6, Faith1_89, FarmResident_91, FatCactus_61, Finemlucis_90, Fregley_53, Fryberger_9, Gabriela_89, Gardann_89, GardenSalsa_6, GenevaB15_6, Greely_63, Guey18_12, GuuelaD_86, Hafay_89, Itos_89, Kahlid_88, Kelcole_50, Kropertea_84, Kudrefre_69, Lewan_90, LilDestine_87, Loadrie_88, Marcie_57, MkaliMitinis3_91, MrMagoo_6, Myrna_56, Nanosmite_5, Nanosmite_6, NiceHouse_24, Nicholasp3_89, Octobien14_69, OneinaGillian_52, PP_66, PYPDinur_90, Pepe25_51, Phrampa_199, Quby_90, Rabbitrun_73, Rey_5, RobinRose_54, Rockabye_208, Romm_54, Ronaldo_13, Rossetti_89, Rumpelstiltskin_85, SJReid_210, ScoobyDoobyDoo_50, Sephiroth_68, Sheng711_91, Syleon_70, Tempo_52, Tourach_89, Trax_73, Underpass_79, Volt_13, VroomVroom_29, Wigglewiggle_89, Wilder_90, Zakai_90, ZhongYanYuan_86, Ziko_14,

Summary by start number:

Start 12:

- Found in 4 of 139 (2.9%) of genes in pham
- Manual Annotations of this start: 2 of 113
- Called 100.0% of time when present
- Phage (with cluster) where this start called: JasmineDragon_29 (AZ4), MiniMommy_30 (AZ4), ShakeltOph_30 (AZ4), VroomVroom_29 (AZ4),

Start 19:

- Found in 4 of 139 (2.9%) of genes in pham
- Manual Annotations of this start: 4 of 113
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Kudrefre_69 (DU1), Octobien14_69 (DU1), Sephiroth_68 (DU1), Syleon_70 (DU1),

Start 28:

- Found in 64 of 139 (46.0%) of genes in pham
- Manual Annotations of this start: 56 of 113
- Called 93.8% of time when present
- Phage (with cluster) where this start called: ActinUp_67 (K1), Adephegia_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_69 (K1), Capricorn_67 (K1), CaseJules_69 (K1), Clipper_72 (K1), Curiosium_71 (K1), Dalmuri_67 (K1), Daredevil_111 (DL), 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), SpeedDemon_1180 (DL), Spock_67 (K1), Tachez_67 (K1), Topper_67 (K1), Towmatter_114 (DL), TruffulaTree_68 (K1), Twitch_67 (K1), Validus_72 (K1), Zabiza_62 (K1), Zavala_70 (K1),

Start 30:

- Found in 13 of 139 (9.4%) of genes in pham
- Manual Annotations of this start: 2 of 113
- Called 15.4% of time when present
- Phage (with cluster) where this start called: Rabbitrun_73 (DU2), Trax_73 (DU2),

Start 32:

- Found in 2 of 139 (1.4%) of genes in pham
- Manual Annotations of this start: 1 of 113
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Nanosmite_6 (M3),

Start 36:

- Found in 1 of 139 (0.7%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Greely_63 (C2),

Start 38:

- Found in 2 of 139 (1.4%) of genes in pham
- Manual Annotations of this start: 1 of 113
- Called 50.0% of time when present
- Phage (with cluster) where this start called: PP_66 (A7),

Start 44:

- Found in 8 of 139 (5.8%) of genes in pham
- Manual Annotations of this start: 6 of 113
- Called 87.5% 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), MrMagoo_6 (M2), Nanosmite_5 (M3),

Start 46:

- Found in 2 of 139 (1.4%) of genes in pham
- Manual Annotations of this start: 1 of 113
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Bantam_116 (DL),

Start 47:

- Found in 35 of 139 (25.2%) of genes in pham
- Manual Annotations of this start: 1 of 113
- Called 2.9% of time when present
- Phage (with cluster) where this start called: Bazzle_86 (L2),

Start 49:

- Found in 46 of 139 (33.1%) of genes in pham
- Manual Annotations of this start: 25 of 113
- Called 71.7% of time when present

- Phage (with cluster) where this start called: Archie_86 (L2), Chaser_88 (L4), Crossroads_89 (L2), Douge_90 (L4), Douzhi_90 (L4), DyoEdafos_92 (L4), Faith1_89 (L2), FarmResident_91 (L4), Fryberger_9 (DP), Gabriela_89 (L2), Gardann_89 (L2), Guey18_12 (DP), GuuelaD_86 (L2), Itos_89 (L2), Kahlid_88 (L2), LilDestine_87 (L2), Loadrie_88 (L2), NiceHouse_24 (CE), Nicholasp3_89 (L2), Phrampa_199 (FC), Rockabye_208 (FC), Ronaldo_13 (DP), Rumpelstiltskin_85 (L2), SJReid_210 (FC), Sheng711_91 (L4), Tourach_89 (L2), Underpass_79 (L2), Volt_13 (DP), Wigglewobble_89 (L2), Wilder_90 (L2), Zakai_90 (L2), ZhongYanYuan_86 (L2), Ziko_14 (DP),

Start 50:

- Found in 11 of 139 (7.9%) of genes in pham
- Manual Annotations of this start: 10 of 113
- Called 100.0% of time when present
- Phage (with cluster) where this start called: CandC_51 (EG), Fregley_53 (EG), Kelcole_50 (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 57:

- Found in 15 of 139 (10.8%) of genes in pham
- Manual Annotations of this start: 3 of 113
- Called 26.7% of time when present
- Phage (with cluster) where this start called: Finemlucis_90 (L2), Kropertea_84 (L4), MkaliMitinis3_91 (L2), Rey_5 (M2),

Start 58:

- Found in 72 of 139 (51.8%) of genes in pham
- No Manual Annotations of this start.
- Called 1.4% of time when present
- Phage (with cluster) where this start called: BrainDrainer_91 (L4),

Start 60:

- Found in 30 of 139 (21.6%) of genes in pham
- Manual Annotations of this start: 1 of 113
- Called 20.0% 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 63:

- Found in 9 of 139 (6.5%) of genes in pham
- No Manual Annotations of this start.
- Called 22.2% of time when present
- Phage (with cluster) where this start called: PYPDinur_90 (L4), Quby_90 (L4),

Summary by clusters:

There are 16 clusters represented in this pham: A20, DL, M3, EG, DU1, CE, L4, K1, FC, L2, A7, M2, C2, DU2, AZ4, DP,

Info for manual annotations of cluster A7:

- Start number 38 was manually annotated 1 time for cluster A7.

Info for manual annotations of cluster AZ4:

- Start number 12 was manually annotated 2 times for cluster AZ4.

Info for manual annotations of cluster C2:

- Start number 50 was manually annotated 2 times for cluster C2.

Info for manual annotations of cluster CE:

- Start number 49 was manually annotated 1 time for cluster CE.

Info for manual annotations of cluster DL:

- Start number 28 was manually annotated 2 times for cluster DL.
- Start number 46 was manually annotated 1 time for cluster DL.

Info for manual annotations of cluster DP:

- Start number 49 was manually annotated 5 times for cluster DP.

Info for manual annotations of cluster DU1:

- Start number 19 was manually annotated 4 times for cluster DU1.

Info for manual annotations of cluster DU2:

- Start number 30 was manually annotated 2 times for cluster DU2.

Info for manual annotations of cluster EG:

- Start number 50 was manually annotated 8 times for cluster EG.

Info for manual annotations of cluster K1:

- Start number 28 was manually annotated 54 times for cluster K1.

Info for manual annotations of cluster L2:

- Start number 47 was manually annotated 1 time for cluster L2.
- Start number 49 was manually annotated 16 times for cluster L2.
- Start number 57 was manually annotated 2 times for cluster L2.
- Start number 60 was manually annotated 1 time for cluster L2.

Info for manual annotations of cluster L4:

- Start number 49 was manually annotated 3 times for cluster L4.

Info for manual annotations of cluster M2:

- Start number 44 was manually annotated 5 times for cluster M2.
- Start number 57 was manually annotated 1 time for cluster M2.

Info for manual annotations of cluster M3:

- Start number 32 was manually annotated 1 time for cluster M3.
- Start number 44 was manually annotated 1 time for cluster M3.

Gene Information:

Gene: ActinUp_67 Start: 43706, Stop: 43945, Start Num: 28

Candidate Starts for ActinUp_67:

(17, 43655), (Start: 28 @43706 has 56 MA's), (39, 43730), (48, 43751), (58, 43778), (59, 43781), (82, 43880), (83, 43886),

Gene: Adephagia_67 Start: 43743, Stop: 43982, Start Num: 28

Candidate Starts for Adephagia_67:

(2, 43533), (3, 43542), (17, 43692), (Start: 28 @43743 has 56 MA's), (58, 43815), (59, 43818), (82, 43917), (83, 43923),

Gene: Adonis_67 Start: 43978, Stop: 44217, Start Num: 28

Candidate Starts for Adonis_67:

(Start: 28 @43978 has 56 MA's), (58, 44050), (59, 44053), (82, 44152), (83, 44158),

Gene: AlishaPH_67 Start: 44004, Stop: 44243, Start Num: 28

Candidate Starts for AlishaPH_67:

(2, 43794), (3, 43803), (17, 43953), (Start: 28 @44004 has 56 MA's), (58, 44076), (59, 44079), (82, 44178), (83, 44184),

Gene: Anaya_70 Start: 44697, Stop: 44936, Start Num: 28

Candidate Starts for Anaya_70:

(2, 44487), (3, 44496), (17, 44646), (Start: 28 @44697 has 56 MA's), (48, 44742), (53, 44751), (58, 44769), (81, 44868),

Gene: Archie_86 Start: 57063, Stop: 57242, Start Num: 49

Candidate Starts for Archie_86:

(Start: 47 @57057 has 1 MA's), (Start: 49 @57063 has 25 MA's), (Start: 60 @57102 has 1 MA's), (67, 57141), (75, 57168),

Gene: Asayake_67 Start: 44058, Stop: 44297, Start Num: 28

Candidate Starts for Asayake_67:

(2, 43848), (3, 43857), (17, 44007), (Start: 28 @44058 has 56 MA's), (58, 44130), (59, 44133), (82, 44232), (83, 44238),

Gene: Atiba_68 Start: 43706, Stop: 43945, Start Num: 28

Candidate Starts for Atiba_68:

(2, 43496), (3, 43505), (17, 43655), (Start: 28 @43706 has 56 MA's), (58, 43778), (59, 43781), (82, 43880), (83, 43886),

Gene: Aziz_6 Start: 2394, Stop: 2188, Start Num: 44

Candidate Starts for Aziz_6:

(Start: 44 @2394 has 6 MA's), (Start: 60 @2352 has 1 MA's), (67, 2316), (69, 2304),

Gene: BEEST_67 Start: 44058, Stop: 44297, Start Num: 28

Candidate Starts for BEEST_67:

(2, 43848), (3, 43857), (17, 44007), (Start: 28 @44058 has 56 MA's), (58, 44130), (59, 44133), (82, 44232), (83, 44238),

Gene: BGlluviae_67 Start: 43861, Stop: 44100, Start Num: 28

Candidate Starts for BGlluviae_67:

(2, 43651), (3, 43660), (17, 43810), (Start: 28 @43861 has 56 MA's), (58, 43933), (59, 43936), (82, 44035), (83, 44041),

Gene: Bantam_116 Start: 73048, Stop: 73236, Start Num: 46

Candidate Starts for Bantam_116:

(Start: 28 @73009 has 56 MA's), (Start: 46 @73048 has 1 MA's), (90, 73207),

Gene: Baoshan_86 Start: 57756, Stop: 57896, Start Num: 60

Candidate Starts for Baoshan_86:

(15, 57603), (Start: 47 @57711 has 1 MA's), (Start: 49 @57717 has 25 MA's), (Start: 60 @57756 has 1 MA's), (61, 57759), (67, 57795), (75, 57822),

Gene: BarrelRoll_68 Start: 44144, Stop: 44383, Start Num: 28

Candidate Starts for BarrelRoll_68:

(2, 43934), (3, 43943), (17, 44093), (Start: 28 @44144 has 56 MA's), (39, 44168), (48, 44189), (58, 44216), (59, 44219), (82, 44318), (83, 44324),

Gene: Bazzle_86 Start: 57613, Stop: 57798, Start Num: 47

Candidate Starts for Bazzle_86:

(Start: 47 @57613 has 1 MA's), (Start: 49 @57619 has 25 MA's), (Start: 60 @57658 has 1 MA's), (67, 57697), (75, 57724),

Gene: Beezoo_69 Start: 44656, Stop: 44895, Start Num: 28

Candidate Starts for Beezoo_69:

(2, 44446), (3, 44455), (17, 44605), (Start: 28 @44656 has 56 MA's), (48, 44701), (58, 44728), (59, 44731), (82, 44830), (83, 44836),

Gene: Belladonna_67 Start: 43861, Stop: 44100, Start Num: 28

Candidate Starts for Belladonna_67:

(2, 43651), (3, 43660), (17, 43810), (Start: 28 @43861 has 56 MA's), (58, 43933), (59, 43936), (82, 44035), (83, 44041),

Gene: Blizzard_67 Start: 44058, Stop: 44297, Start Num: 28

Candidate Starts for Blizzard_67:

(2, 43848), (3, 43857), (17, 44007), (Start: 28 @44058 has 56 MA's), (58, 44130), (59, 44133), (82, 44232), (83, 44238),

Gene: Boiiii_67 Start: 44060, Stop: 44299, Start Num: 28

Candidate Starts for Boiiii_67:

(2, 43850), (3, 43859), (17, 44009), (Start: 28 @44060 has 56 MA's), (58, 44132), (59, 44135), (82, 44234), (83, 44240),

Gene: BrainDrainer_91 Start: 57339, Stop: 57524, Start Num: 58

Candidate Starts for BrainDrainer_91:

(Start: 47 @57306 has 1 MA's), (Start: 49 @57312 has 25 MA's), (58, 57339), (59, 57342), (63, 57357), (88, 57477),

Gene: CREW_67 Start: 43861, Stop: 44100, Start Num: 28

Candidate Starts for CREW_67:

(2, 43651), (3, 43660), (17, 43810), (Start: 28 @43861 has 56 MA's), (58, 43933), (59, 43936), (82, 44035), (83, 44041),

Gene: CallaLilly_69 Start: 43784, Stop: 44023, Start Num: 28

Candidate Starts for CallaLilly_69:

(2, 43574), (3, 43583), (17, 43733), (Start: 28 @43784 has 56 MA's), (58, 43856), (59, 43859), (82, 43958), (83, 43964),

Gene: CandC_51 Start: 36309, Stop: 36118, Start Num: 50

Candidate Starts for CandC_51:

(1, 36582), (5, 36531), (14, 36426), (29, 36351), (Start: 50 @36309 has 10 MA's), (68, 36234), (81, 36177),

Gene: Capricorn_67 Start: 43861, Stop: 44100, Start Num: 28

Candidate Starts for Capricorn_67:

(2, 43651), (3, 43660), (17, 43810), (Start: 28 @43861 has 56 MA's), (58, 43933), (59, 43936), (82, 44035), (83, 44041),

Gene: CaseJules_69 Start: 44058, Stop: 44297, Start Num: 28

Candidate Starts for CaseJules_69:

(2, 43848), (3, 43857), (17, 44007), (Start: 28 @44058 has 56 MA's), (58, 44130), (59, 44133), (82, 44232), (83, 44238),

Gene: Chaser_88 Start: 56443, Stop: 56652, Start Num: 49

Candidate Starts for Chaser_88:

(7, 56272), (15, 56329), (25, 56371), (Start: 30 @56401 has 2 MA's), (Start: 47 @56437 has 1 MA's), (Start: 49 @56443 has 25 MA's), (58, 56470), (59, 56473), (71, 56536), (79, 56554),

Gene: Clipper_72 Start: 44760, Stop: 44999, Start Num: 28

Candidate Starts for Clipper_72:

(2, 44550), (3, 44559), (17, 44709), (Start: 28 @44760 has 56 MA's), (48, 44805), (58, 44832), (59, 44835), (82, 44934), (83, 44940),

Gene: Crossroads_89 Start: 57560, Stop: 57739, Start Num: 49

Candidate Starts for Crossroads_89:

(13, 57431), (15, 57446), (16, 57455), (21, 57470), (Start: 47 @57554 has 1 MA's), (Start: 49 @57560 has 25 MA's), (Start: 60 @57599 has 1 MA's), (61, 57602), (75, 57665),

Gene: Curiosium_71 Start: 43377, Stop: 43622, Start Num: 28

Candidate Starts for Curiosium_71:

(17, 43326), (Start: 28 @43377 has 56 MA's), (58, 43449), (59, 43452), (74, 43521), (81, 43554), (91, 43614),

Gene: DHan_92 Start: 57819, Stop: 57959, Start Num: 60

Candidate Starts for DHan_92:

(Start: 47 @57774 has 1 MA's), (Start: 49 @57780 has 25 MA's), (Start: 60 @57819 has 1 MA's), (61, 57822), (67, 57858), (75, 57885),

Gene: Dalmuri_67 Start: 43861, Stop: 44100, Start Num: 28

Candidate Starts for Dalmuri_67:

(2, 43651), (3, 43660), (17, 43810), (Start: 28 @43861 has 56 MA's), (58, 43933), (59, 43936), (82, 44035), (83, 44041),

Gene: DanBing_88 Start: 57317, Stop: 57457, Start Num: 60

Candidate Starts for DanBing_88:

(15, 57164), (Start: 47 @57272 has 1 MA's), (Start: 49 @57278 has 25 MA's), (Start: 60 @57317 has 1 MA's), (61, 57320), (67, 57356), (75, 57383),

Gene: Daredevil_111 Start: 69987, Stop: 70223, Start Num: 28

Candidate Starts for Daredevil_111:

(Start: 28 @69987 has 56 MA's), (39, 70011), (76, 70125), (89, 70191), (90, 70194),

Gene: Douge_90 Start: 56768, Stop: 56947, Start Num: 49

Candidate Starts for Douge_90:

(Start: 47 @56762 has 1 MA's), (Start: 49 @56768 has 25 MA's), (Start: 60 @56807 has 1 MA's), (61, 56810), (67, 56846), (75, 56873),

Gene: Douzhi_90 Start: 57001, Stop: 57213, Start Num: 49

Candidate Starts for Douzhi_90:

(Start: 47 @56995 has 1 MA's), (Start: 49 @57001 has 25 MA's), (58, 57028), (59, 57031), (63, 57046), (88, 57166),

Gene: Durfee_67 Start: 44058, Stop: 44297, Start Num: 28

Candidate Starts for Durfee_67:

(2, 43848), (3, 43857), (17, 44007), (Start: 28 @44058 has 56 MA's), (58, 44130), (59, 44133), (82, 44232), (83, 44238),

Gene: DyoEdafos_92 Start: 57153, Stop: 57365, Start Num: 49

Candidate Starts for DyoEdafos_92:

(13, 57024), (15, 57039), (16, 57048), (20, 57060), (21, 57063), (Start: 30 @57111 has 2 MA's), (41, 57132), (Start: 47 @57147 has 1 MA's), (Start: 49 @57153 has 25 MA's), (58, 57180), (59, 57183), (63, 57198), (88, 57318),

Gene: Emerson_69 Start: 44178, Stop: 44417, Start Num: 28

Candidate Starts for Emerson_69:

(2, 43968), (3, 43977), (17, 44127), (Start: 28 @44178 has 56 MA's), (48, 44223), (58, 44250), (59, 44253), (82, 44352), (83, 44358),

Gene: Estes_6 Start: 2402, Stop: 2196, Start Num: 44

Candidate Starts for Estes_6:

(23, 2465), (34, 2423), (Start: 44 @2402 has 6 MA's), (Start: 60 @2360 has 1 MA's), (63, 2351), (69, 2312),

Gene: Faith1_89 Start: 57485, Stop: 57664, Start Num: 49

Candidate Starts for Faith1_89:

(13, 57356), (15, 57371), (16, 57380), (21, 57395), (Start: 47 @57479 has 1 MA's), (Start: 49 @57485 has 25 MA's), (Start: 60 @57524 has 1 MA's), (61, 57527), (75, 57590),

Gene: FarmResident_91 Start: 56713, Stop: 56925, Start Num: 49

Candidate Starts for FarmResident_91:

(13, 56584), (15, 56599), (16, 56608), (18, 56614), (21, 56623), (Start: 47 @56707 has 1 MA's), (Start: 49 @56713 has 25 MA's), (Start: 57 @56737 has 3 MA's), (58, 56740), (59, 56743), (63, 56758), (88, 56878),

Gene: FatCactus_61 Start: 39939, Stop: 39736, Start Num: 44

Candidate Starts for FatCactus_61:

(Start: 44 @39939 has 6 MA's),

Gene: Finemlucis_90 Start: 58613, Stop: 58783, Start Num: 57

Candidate Starts for Finemlucis_90:

(13, 58460), (15, 58475), (Start: 30 @58547 has 2 MA's), (Start: 47 @58583 has 1 MA's), (Start: 49 @58589 has 25 MA's), (Start: 57 @58613 has 3 MA's), (58, 58616), (88, 58736),

Gene: Fregley_53 Start: 36870, Stop: 36679, Start Num: 50

Candidate Starts for Fregley_53:

(1, 37143), (5, 37092), (14, 36987), (29, 36912), (Start: 50 @36870 has 10 MA's), (68, 36795), (81, 36738),

Gene: Fryberger_9 Start: 2013, Stop: 1810, Start Num: 49

Candidate Starts for Fryberger_9:

(6, 2187), (8, 2178), (10, 2163), (27, 2067), (Start: 49 @2013 has 25 MA's), (Start: 57 @1989 has 3 MA's), (62, 1971), (64, 1965),

Gene: Gabriela_89 Start: 56831, Stop: 57010, Start Num: 49

Candidate Starts for Gabriela_89:

(13, 56702), (15, 56717), (16, 56726), (21, 56741), (Start: 47 @56825 has 1 MA's), (Start: 49 @56831 has 25 MA's), (Start: 60 @56870 has 1 MA's), (61, 56873), (75, 56936),

Gene: Ganymede_67 Start: 44084, Stop: 44323, Start Num: 28

Candidate Starts for Ganymede_67:

(2, 43874), (3, 43883), (17, 44033), (Start: 28 @44084 has 56 MA's), (48, 44129), (58, 44156), (59, 44159), (82, 44258), (83, 44264),

Gene: Gardann_89 Start: 57320, Stop: 57499, Start Num: 49

Candidate Starts for Gardann_89:

(13, 57191), (15, 57206), (16, 57215), (18, 57221), (21, 57230), (Start: 30 @57278 has 2 MA's), (33, 57284), (Start: 47 @57314 has 1 MA's), (Start: 49 @57320 has 25 MA's), (Start: 60 @57359 has 1 MA's), (67, 57398), (75, 57425),

Gene: GardenSalsa_6 Start: 2415, Stop: 2209, Start Num: 44

Candidate Starts for GardenSalsa_6:

(Start: 44 @2415 has 6 MA's), (Start: 60 @2373 has 1 MA's), (69, 2325),

Gene: GenevaB15_6 Start: 2394, Stop: 2188, Start Num: 44

Candidate Starts for GenevaB15_6:

(Start: 44 @2394 has 6 MA's), (Start: 60 @2352 has 1 MA's), (67, 2316), (69, 2304),

Gene: Geraldini_70 Start: 44740, Stop: 44979, Start Num: 28

Candidate Starts for Geraldini_70:

(2, 44530), (3, 44539), (17, 44689), (Start: 28 @44740 has 56 MA's), (58, 44812), (59, 44815), (82, 44914), (83, 44920),

Gene: Greely_63 Start: 23265, Stop: 23489, Start Num: 36

Candidate Starts for Greely_63:

(36, 23265), (53, 23304), (Start: 57 @23319 has 3 MA's), (81, 23427),

Gene: Guey18_12 Start: 2707, Stop: 2504, Start Num: 49

Candidate Starts for Guey18_12:

(6, 2881), (8, 2872), (10, 2857), (27, 2761), (Start: 49 @2707 has 25 MA's), (54, 2695), (Start: 57 @2683 has 3 MA's), (62, 2665), (64, 2659),

Gene: GuuelaD_86 Start: 57444, Stop: 57623, Start Num: 49

Candidate Starts for GuuelaD_86:

(Start: 47 @57438 has 1 MA's), (Start: 49 @57444 has 25 MA's), (Start: 60 @57483 has 1 MA's), (61, 57486), (67, 57522), (75, 57549),

Gene: Hafay_89 Start: 57435, Stop: 57575, Start Num: 60

Candidate Starts for Hafay_89:

(15, 57282), (22, 57315), (Start: 47 @57390 has 1 MA's), (Start: 49 @57396 has 25 MA's), (Start: 60 @57435 has 1 MA's), (67, 57474), (75, 57501),

Gene: HedwigODU_67 Start: 43706, Stop: 43945, Start Num: 28

Candidate Starts for HedwigODU_67:

(17, 43655), (Start: 28 @43706 has 56 MA's), (39, 43730), (48, 43751), (58, 43778), (59, 43781), (82, 43880), (83, 43886),

Gene: Homura_67 Start: 43861, Stop: 44100, Start Num: 28

Candidate Starts for Homura_67:

(2, 43651), (3, 43660), (17, 43810), (Start: 28 @43861 has 56 MA's), (58, 43933), (59, 43936), (82, 44035), (83, 44041),

Gene: Hyperbowlee_67 Start: 44058, Stop: 44297, Start Num: 28

Candidate Starts for Hyperbowlee_67:

(2, 43848), (3, 43857), (17, 44007), (Start: 28 @44058 has 56 MA's), (58, 44130), (59, 44133), (82, 44232), (83, 44238),

Gene: Inky_67 Start: 43861, Stop: 44100, Start Num: 28

Candidate Starts for Inky_67:

(2, 43651), (3, 43660), (17, 43810), (Start: 28 @43861 has 56 MA's), (58, 43933), (59, 43936), (82, 44035), (83, 44041),

Gene: Itos_89 Start: 56391, Stop: 56570, Start Num: 49

Candidate Starts for Itos_89:

(13, 56262), (15, 56277), (16, 56286), (21, 56301), (Start: 47 @56385 has 1 MA's), (Start: 49 @56391 has 25 MA's), (Start: 60 @56430 has 1 MA's), (61, 56433), (75, 56496),

Gene: Jarvi_67 Start: 43861, Stop: 44100, Start Num: 28

Candidate Starts for Jarvi_67:

(2, 43651), (3, 43660), (17, 43810), (Start: 28 @43861 has 56 MA's), (58, 43933), (59, 43936), (82, 44035), (83, 44041),

Gene: JasmineDragon_29 Start: 22315, Stop: 22620, Start Num: 12

Candidate Starts for JasmineDragon_29:

(Start: 12 @22315 has 2 MA's), (Start: 28 @22396 has 56 MA's), (77, 22528), (90, 22591),

Gene: Jayhawk_69 Start: 44204, Stop: 44443, Start Num: 28

Candidate Starts for Jayhawk_69:

(2, 43994), (3, 44003), (17, 44153), (Start: 28 @44204 has 56 MA's), (39, 44228), (48, 44249), (58, 44276), (59, 44279), (82, 44378), (83, 44384),

Gene: Jeckyll_67 Start: 43861, Stop: 44100, Start Num: 28

Candidate Starts for Jeckyll_67:

(2, 43651), (3, 43660), (17, 43810), (Start: 28 @43861 has 56 MA's), (58, 43933), (59, 43936), (82, 44035), (83, 44041),

Gene: Joy99_67 Start: 43790, Stop: 44029, Start Num: 28

Candidate Starts for Joy99_67:

(2, 43580), (3, 43589), (17, 43739), (Start: 28 @43790 has 56 MA's), (58, 43862), (59, 43865), (82, 43964), (83, 43970),

Gene: Kahlid_88 Start: 57250, Stop: 57417, Start Num: 49

Candidate Starts for Kahlid_88:

(Start: 47 @57244 has 1 MA's), (Start: 49 @57250 has 25 MA's), (Start: 57 @57274 has 3 MA's), (58, 57277), (70, 57337), (73, 57343), (85, 57361), (86, 57364),

Gene: Kelcole_50 Start: 36504, Stop: 36310, Start Num: 50

Candidate Starts for Kelcole_50:

(1, 36777), (4, 36741), (5, 36726), (14, 36621), (29, 36546), (Start: 50 @36504 has 10 MA's), (68, 36429), (81, 36372),

Gene: Kropertea_84 Start: 56457, Stop: 56645, Start Num: 57

Candidate Starts for Kropertea_84:

(Start: 47 @56427 has 1 MA's), (Start: 49 @56433 has 25 MA's), (Start: 57 @56457 has 3 MA's), (58, 56460), (59, 56463), (63, 56478), (88, 56598),

Gene: Kudrefre_69 Start: 44258, Stop: 44521, Start Num: 19

Candidate Starts for Kudrefre_69:

(Start: 19 @44258 has 4 MA's), (24, 44279), (25, 44282), (29, 44306), (43, 44336), (64, 44381), (78, 44429), (84, 44465), (87, 44474), (89, 44489), (90, 44492),

Gene: Lewan_90 Start: 57483, Stop: 57623, Start Num: 60

Candidate Starts for Lewan_90:

(15, 57330), (21, 57354), (Start: 47 @57438 has 1 MA's), (Start: 49 @57444 has 25 MA's), (Start: 60 @57483 has 1 MA's), (67, 57522), (75, 57549),

Gene: LilDestine_87 Start: 57157, Stop: 57336, Start Num: 49

Candidate Starts for LilDestine_87:

(Start: 47 @57151 has 1 MA's), (Start: 49 @57157 has 25 MA's), (Start: 60 @57196 has 1 MA's), (61, 57199), (67, 57235), (75, 57262),

Gene: Llorens_67 Start: 43861, Stop: 44100, Start Num: 28

Candidate Starts for Llorens_67:

(2, 43651), (3, 43660), (17, 43810), (Start: 28 @43861 has 56 MA's), (58, 43933), (59, 43936), (82, 44035), (83, 44041),

Gene: Loadrie_88 Start: 57652, Stop: 57831, Start Num: 49

Candidate Starts for Loadrie_88:

(13, 57523), (15, 57538), (16, 57547), (21, 57562), (Start: 47 @57646 has 1 MA's), (Start: 49 @57652 has 25 MA's), (Start: 60 @57691 has 1 MA's), (61, 57694), (75, 57757),

Gene: Lunahalos_67 Start: 43861, Stop: 44100, Start Num: 28

Candidate Starts for Lunahalos_67:

(2, 43651), (3, 43660), (17, 43810), (Start: 28 @43861 has 56 MA's), (58, 43933), (59, 43936), (82, 44035), (83, 44041),

Gene: MacKat_63 Start: 39644, Stop: 39883, Start Num: 28

Candidate Starts for MacKat_63:

(2, 39434), (3, 39443), (17, 39593), (Start: 28 @39644 has 56 MA's), (48, 39689), (58, 39716), (59, 39719), (82, 39818), (83, 39824),

Gene: Marcie_57 Start: 37372, Stop: 37181, Start Num: 50

Candidate Starts for Marcie_57:

(Start: 50 @37372 has 10 MA's), (81, 37240),

Gene: MeaningOfLife_68 Start: 44613, Stop: 44852, Start Num: 28
Candidate Starts for MeaningOfLife_68:
(2, 44403), (3, 44412), (17, 44562), (Start: 28 @44613 has 56 MA's), (39, 44637), (48, 44658), (58, 44685), (59, 44688), (82, 44787), (83, 44793),

Gene: MiniMommy_30 Start: 22316, Stop: 22621, Start Num: 12
Candidate Starts for MiniMommy_30:
(Start: 12 @22316 has 2 MA's), (Start: 28 @22397 has 56 MA's), (77, 22529), (90, 22592),

Gene: MkaliMitinis3_91 Start: 57639, Stop: 57782, Start Num: 57
Candidate Starts for MkaliMitinis3_91:
(8, 57450), (11, 57471), (13, 57486), (15, 57501), (Start: 30 @57573 has 2 MA's), (33, 57579), (Start: 47 @57609 has 1 MA's), (Start: 49 @57615 has 25 MA's), (Start: 57 @57639 has 3 MA's), (58, 57642), (70, 57702), (73, 57708), (85, 57726), (86, 57729),

Gene: MrMagoo_6 Start: 2415, Stop: 2209, Start Num: 44
Candidate Starts for MrMagoo_6:
(Start: 44 @2415 has 6 MA's), (Start: 60 @2373 has 1 MA's), (69, 2325),

Gene: Mynx_69 Start: 44473, Stop: 44712, Start Num: 28
Candidate Starts for Mynx_69:
(2, 44263), (3, 44272), (17, 44422), (Start: 28 @44473 has 56 MA's), (39, 44497), (48, 44518), (58, 44545), (59, 44548), (82, 44647), (83, 44653),

Gene: Myrna_56 Start: 22168, Stop: 22353, Start Num: 50
Candidate Starts for Myrna_56:
(9, 22015), (Start: 50 @22168 has 10 MA's), (56, 22177), (78, 22255),

Gene: Nanosmite_6 Start: 2681, Stop: 2448, Start Num: 32
Candidate Starts for Nanosmite_6:
(Start: 32 @2681 has 1 MA's), (58, 2624), (59, 2621), (70, 2564), (81, 2519),

Gene: Nanosmite_5 Start: 2451, Stop: 2248, Start Num: 44
Candidate Starts for Nanosmite_5:
(23, 2514), (34, 2472), (Start: 44 @2451 has 6 MA's), (55, 2427),

Gene: NiceHouse_24 Start: 11340, Stop: 11110, Start Num: 49
Candidate Starts for NiceHouse_24:
(Start: 49 @11340 has 25 MA's), (Start: 60 @11304 has 1 MA's), (65, 11292), (80, 11208), (88, 11181),

Gene: Nicholasp3_89 Start: 57320, Stop: 57499, Start Num: 49
Candidate Starts for Nicholasp3_89:
(13, 57191), (15, 57206), (16, 57215), (18, 57221), (21, 57230), (Start: 30 @57278 has 2 MA's), (33, 57284), (Start: 47 @57314 has 1 MA's), (Start: 49 @57320 has 25 MA's), (Start: 60 @57359 has 1 MA's), (67, 57398), (75, 57425),

Gene: Octobien14_69 Start: 44537, Stop: 44797, Start Num: 19
Candidate Starts for Octobien14_69:
(Start: 19 @44537 has 4 MA's), (24, 44558), (25, 44561), (29, 44585), (43, 44615), (45, 44618), (48, 44627), (84, 44741), (87, 44750), (89, 44765), (90, 44768),

Gene: OneinaGillian_52 Start: 36406, Stop: 36215, Start Num: 50
Candidate Starts for OneinaGillian_52:

(1, 36679), (5, 36628), (14, 36523), (29, 36448), (Start: 50 @36406 has 10 MA's), (68, 36331), (81, 36274),

Gene: PP_66 Start: 45311, Stop: 45114, Start Num: 38

Candidate Starts for PP_66:

(Start: 32 @45320 has 1 MA's), (Start: 38 @45311 has 1 MA's), (51, 45284), (81, 45182), (82, 45179),

Gene: PYPDinur_90 Start: 57609, Stop: 57776, Start Num: 63

Candidate Starts for PYPDinur_90:

(Start: 47 @57558 has 1 MA's), (Start: 49 @57564 has 25 MA's), (58, 57591), (59, 57594), (63, 57609), (88, 57729),

Gene: Padfoot_67 Start: 44058, Stop: 44297, Start Num: 28

Candidate Starts for Padfoot_67:

(2, 43848), (3, 43857), (17, 44007), (Start: 28 @44058 has 56 MA's), (58, 44130), (59, 44133), (82, 44232), (83, 44238),

Gene: Padpat_70 Start: 44178, Stop: 44417, Start Num: 28

Candidate Starts for Padpat_70:

(2, 43968), (3, 43977), (17, 44127), (Start: 28 @44178 has 56 MA's), (48, 44223), (58, 44250), (59, 44253), (82, 44352), (83, 44358),

Gene: Peel_67 Start: 43863, Stop: 44102, Start Num: 28

Candidate Starts for Peel_67:

(2, 43653), (3, 43662), (17, 43812), (Start: 28 @43863 has 56 MA's), (58, 43935), (59, 43938), (82, 44037), (83, 44043),

Gene: Pepe25_51 Start: 35948, Stop: 35757, Start Num: 50

Candidate Starts for Pepe25_51:

(Start: 50 @35948 has 10 MA's), (68, 35873), (81, 35816), (90, 35786),

Gene: Phrampa_199 Start: 141698, Stop: 141910, Start Num: 49

Candidate Starts for Phrampa_199:

(Start: 49 @141698 has 25 MA's), (62, 141740), (66, 141761), (86, 141848),

Gene: Piatt_67 Start: 44058, Stop: 44297, Start Num: 28

Candidate Starts for Piatt_67:

(2, 43848), (3, 43857), (17, 44007), (Start: 28 @44058 has 56 MA's), (58, 44130), (59, 44133), (82, 44232), (83, 44238),

Gene: Pokerus_67 Start: 44203, Stop: 44442, Start Num: 28

Candidate Starts for Pokerus_67:

(2, 43993), (3, 44002), (17, 44152), (Start: 28 @44203 has 56 MA's), (48, 44248), (58, 44275), (59, 44278), (82, 44377), (83, 44383),

Gene: Quby_90 Start: 56844, Stop: 57011, Start Num: 63

Candidate Starts for Quby_90:

(Start: 49 @56799 has 25 MA's), (Start: 57 @56823 has 3 MA's), (58, 56826), (59, 56829), (63, 56844), (88, 56964),

Gene: QuincyRose_65 Start: 44084, Stop: 44323, Start Num: 28

Candidate Starts for QuincyRose_65:

(2, 43874), (3, 43883), (17, 44033), (Start: 28 @44084 has 56 MA's), (48, 44129), (58, 44156), (59, 44159), (82, 44258), (83, 44264),

Gene: Rabbitrun_73 Start: 44915, Stop: 45124, Start Num: 30

Candidate Starts for Rabbitrun_73:

(Start: 30 @44915 has 2 MA's), (37, 44927), (52, 44957), (74, 45020), (84, 45065),

Gene: Ramen_68 Start: 43708, Stop: 43947, Start Num: 28

Candidate Starts for Ramen_68:

(17, 43657), (Start: 28 @43708 has 56 MA's), (39, 43732), (48, 43753), (58, 43780), (59, 43783), (82, 43882), (83, 43888),

Gene: Rapunzel97_69 Start: 44159, Stop: 44398, Start Num: 28

Candidate Starts for Rapunzel97_69:

(2, 43949), (3, 43958), (17, 44108), (Start: 28 @44159 has 56 MA's), (39, 44183), (48, 44204), (58, 44231), (59, 44234), (82, 44333), (83, 44339),

Gene: Rey_5 Start: 2370, Stop: 2203, Start Num: 57

Candidate Starts for Rey_5:

(23, 2466), (34, 2424), (Start: 44 @2403 has 6 MA's), (Start: 57 @2370 has 3 MA's), (Start: 60 @2358 has 1 MA's), (67, 2322), (69, 2310),

Gene: RobinRose_54 Start: 36915, Stop: 36724, Start Num: 50

Candidate Starts for RobinRose_54:

(1, 37188), (5, 37137), (14, 37032), (29, 36957), (Start: 50 @36915 has 10 MA's), (68, 36840), (81, 36783),

Gene: Rockabye_208 Start: 136558, Stop: 136761, Start Num: 49

Candidate Starts for Rockabye_208:

(Start: 49 @136558 has 25 MA's),

Gene: Romm_54 Start: 36915, Stop: 36724, Start Num: 50

Candidate Starts for Romm_54:

(1, 37188), (5, 37137), (14, 37032), (29, 36957), (Start: 50 @36915 has 10 MA's), (68, 36840), (81, 36783),

Gene: Ronaldo_13 Start: 3139, Stop: 2936, Start Num: 49

Candidate Starts for Ronaldo_13:

(Start: 49 @3139 has 25 MA's), (54, 3127), (Start: 57 @3115 has 3 MA's), (62, 3097), (64, 3091), (69, 3052),

Gene: Rosmarinus_67 Start: 43849, Stop: 44088, Start Num: 28

Candidate Starts for Rosmarinus_67:

(2, 43639), (3, 43648), (17, 43798), (Start: 28 @43849 has 56 MA's), (58, 43921), (59, 43924), (82, 44023), (83, 44029),

Gene: Rossetti_89 Start: 57710, Stop: 57850, Start Num: 60

Candidate Starts for Rossetti_89:

(13, 57545), (15, 57560), (18, 57575), (Start: 30 @57632 has 2 MA's), (Start: 49 @57674 has 25 MA's), (Start: 60 @57710 has 1 MA's), (67, 57749), (75, 57776),

Gene: Rumpelstiltskin_85 Start: 57113, Stop: 57292, Start Num: 49

Candidate Starts for Rumpelstiltskin_85:

(13, 56984), (15, 56999), (16, 57008), (18, 57014), (21, 57023), (Start: 30 @57071 has 2 MA's), (33, 57077), (Start: 47 @57107 has 1 MA's), (Start: 49 @57113 has 25 MA's), (Start: 60 @57152 has 1 MA's), (67, 57191), (75, 57218),

Gene: SJReid_210 Start: 135453, Stop: 135656, Start Num: 49
Candidate Starts for SJReid_210:
(Start: 49 @135453 has 25 MA's), (62, 135489), (76, 135549), (86, 135600),

Gene: ScoobyDoobyDoo_50 Start: 17925, Stop: 18128, Start Num: 50
Candidate Starts for ScoobyDoobyDoo_50:
(26, 17868), (Start: 50 @17925 has 10 MA's), (58, 17949), (72, 18018), (92, 18108), (93, 18120),

Gene: Sephiroth_68 Start: 44430, Stop: 44693, Start Num: 19
Candidate Starts for Sephiroth_68:
(Start: 19 @44430 has 4 MA's), (24, 44451), (25, 44454), (29, 44478), (43, 44508), (64, 44553), (78, 44601), (84, 44637), (87, 44646), (89, 44661), (90, 44664),

Gene: ShakeltOph_30 Start: 22315, Stop: 22620, Start Num: 12
Candidate Starts for ShakeltOph_30:
(Start: 12 @22315 has 2 MA's), (Start: 28 @22396 has 56 MA's), (77, 22528), (90, 22591),

Gene: Sheng711_91 Start: 57040, Stop: 57252, Start Num: 49
Candidate Starts for Sheng711_91:
(Start: 47 @57034 has 1 MA's), (Start: 49 @57040 has 25 MA's), (58, 57067), (59, 57070), (63, 57085), (88, 57205),

Gene: ShiaSurprise_68 Start: 44058, Stop: 44297, Start Num: 28
Candidate Starts for ShiaSurprise_68:
(2, 43848), (3, 43857), (17, 44007), (Start: 28 @44058 has 56 MA's), (58, 44130), (59, 44133), (82, 44232), (83, 44238),

Gene: Slimphazie_68 Start: 44159, Stop: 44398, Start Num: 28
Candidate Starts for Slimphazie_68:
(2, 43949), (3, 43958), (17, 44108), (Start: 28 @44159 has 56 MA's), (39, 44183), (48, 44204), (58, 44231), (59, 44234), (82, 44333), (83, 44339),

Gene: SpeedDemon_1180 Start: 76063, Stop: 76290, Start Num: 28
Candidate Starts for SpeedDemon_1180:
(Start: 28 @76063 has 56 MA's), (Start: 46 @76102 has 1 MA's), (90, 76261),

Gene: Spock_67 Start: 43862, Stop: 44101, Start Num: 28
Candidate Starts for Spock_67:
(2, 43652), (3, 43661), (17, 43811), (Start: 28 @43862 has 56 MA's), (58, 43934), (59, 43937), (82, 44036), (83, 44042),

Gene: Syleon_70 Start: 44371, Stop: 44631, Start Num: 19
Candidate Starts for Syleon_70:
(Start: 19 @44371 has 4 MA's), (24, 44392), (25, 44395), (29, 44419), (43, 44449), (45, 44452), (84, 44575), (89, 44599), (90, 44602),

Gene: Tachez_67 Start: 43706, Stop: 43945, Start Num: 28
Candidate Starts for Tachez_67:

(2, 43496), (3, 43505), (17, 43655), (Start: 28 @43706 has 56 MA's), (58, 43778), (59, 43781), (82, 43880), (83, 43886),

Gene: Tempo_52 Start: 36794, Stop: 36603, Start Num: 50

Candidate Starts for Tempo_52:

(Start: 50 @36794 has 10 MA's), (68, 36719), (81, 36662),

Gene: Topper_67 Start: 43861, Stop: 44100, Start Num: 28

Candidate Starts for Topper_67:

(2, 43651), (3, 43660), (17, 43810), (Start: 28 @43861 has 56 MA's), (58, 43933), (59, 43936), (82, 44035), (83, 44041),

Gene: Tourach_89 Start: 58025, Stop: 58204, Start Num: 49

Candidate Starts for Tourach_89:

(13, 57896), (15, 57911), (16, 57920), (Start: 30 @57983 has 2 MA's), (Start: 47 @58019 has 1 MA's), (Start: 49 @58025 has 25 MA's), (Start: 60 @58064 has 1 MA's), (61, 58067), (67, 58103), (75, 58130),

Gene: Towmatter_114 Start: 70068, Stop: 70304, Start Num: 28

Candidate Starts for Towmatter_114:

(Start: 28 @70068 has 56 MA's), (39, 70092), (76, 70206), (89, 70272), (90, 70275),

Gene: Trax_73 Start: 45629, Stop: 45832, Start Num: 30

Candidate Starts for Trax_73:

(Start: 30 @45629 has 2 MA's), (35, 45638), (37, 45641), (40, 45647), (42, 45650), (89, 45800), (90, 45803), (91, 45824),

Gene: TruffulaTree_68 Start: 44155, Stop: 44394, Start Num: 28

Candidate Starts for TruffulaTree_68:

(2, 43945), (3, 43954), (17, 44104), (Start: 28 @44155 has 56 MA's), (39, 44179), (48, 44200), (58, 44227), (59, 44230), (82, 44329), (83, 44335),

Gene: Twitch_67 Start: 43863, Stop: 44102, Start Num: 28

Candidate Starts for Twitch_67:

(2, 43653), (3, 43662), (17, 43812), (Start: 28 @43863 has 56 MA's), (58, 43935), (59, 43938), (82, 44037), (83, 44043),

Gene: Underpass_79 Start: 52356, Stop: 52535, Start Num: 49

Candidate Starts for Underpass_79:

(13, 52227), (15, 52242), (16, 52251), (18, 52257), (21, 52266), (Start: 30 @52314 has 2 MA's), (33, 52320), (Start: 47 @52350 has 1 MA's), (Start: 49 @52356 has 25 MA's), (Start: 60 @52395 has 1 MA's), (67, 52434), (75, 52461),

Gene: Validus_72 Start: 44730, Stop: 44951, Start Num: 28

Candidate Starts for Validus_72:

(17, 44679), (Start: 28 @44730 has 56 MA's), (Start: 38 @44748 has 1 MA's), (74, 44838), (81, 44871), (83, 44880),

Gene: Volt_13 Start: 3139, Stop: 2936, Start Num: 49

Candidate Starts for Volt_13:

(Start: 49 @3139 has 25 MA's), (54, 3127), (Start: 57 @3115 has 3 MA's), (62, 3097), (64, 3091), (69, 3052),

Gene: VroomVroom_29 Start: 22410, Stop: 22715, Start Num: 12
Candidate Starts for VroomVroom_29:
(Start: 12 @22410 has 2 MA's), (31, 22497), (77, 22623), (90, 22686),

Gene: Wigglewigggle_89 Start: 57408, Stop: 57575, Start Num: 49
Candidate Starts for Wigglewigggle_89:
(8, 57243), (11, 57264), (13, 57279), (15, 57294), (Start: 30 @57366 has 2 MA's), (33, 57372), (Start: 47 @57402 has 1 MA's), (Start: 49 @57408 has 25 MA's), (Start: 57 @57432 has 3 MA's), (58, 57435), (70, 57495), (73, 57501), (85, 57519), (86, 57522),

Gene: Wilder_90 Start: 57250, Stop: 57417, Start Num: 49
Candidate Starts for Wilder_90:
(Start: 47 @57244 has 1 MA's), (Start: 49 @57250 has 25 MA's), (Start: 57 @57274 has 3 MA's), (58, 57277), (70, 57337), (73, 57343), (85, 57361), (86, 57364),

Gene: Zabiza_62 Start: 40011, Stop: 40250, Start Num: 28
Candidate Starts for Zabiza_62:
(17, 39960), (Start: 28 @40011 has 56 MA's), (39, 40035), (48, 40056), (58, 40083), (59, 40086), (82, 40185), (83, 40191),

Gene: Zakai_90 Start: 57893, Stop: 58072, Start Num: 49
Candidate Starts for Zakai_90:
(13, 57764), (15, 57779), (16, 57788), (21, 57803), (Start: 47 @57887 has 1 MA's), (Start: 49 @57893 has 25 MA's), (Start: 60 @57932 has 1 MA's), (61, 57935), (75, 57998),

Gene: Zavala_70 Start: 44433, Stop: 44672, Start Num: 28
Candidate Starts for Zavala_70:
(2, 44223), (3, 44232), (17, 44382), (Start: 28 @44433 has 56 MA's), (39, 44457), (48, 44478), (58, 44505), (59, 44508), (82, 44607), (83, 44613),

Gene: ZhongYanYuan_86 Start: 57300, Stop: 57479, Start Num: 49
Candidate Starts for ZhongYanYuan_86:
(Start: 47 @57294 has 1 MA's), (Start: 49 @57300 has 25 MA's), (Start: 60 @57339 has 1 MA's), (61, 57342), (67, 57378), (75, 57405),

Gene: Ziko_14 Start: 3153, Stop: 2950, Start Num: 49
Candidate Starts for Ziko_14:
(Start: 49 @3153 has 25 MA's), (54, 3141), (Start: 57 @3129 has 3 MA's), (62, 3111), (64, 3105), (69, 3066),