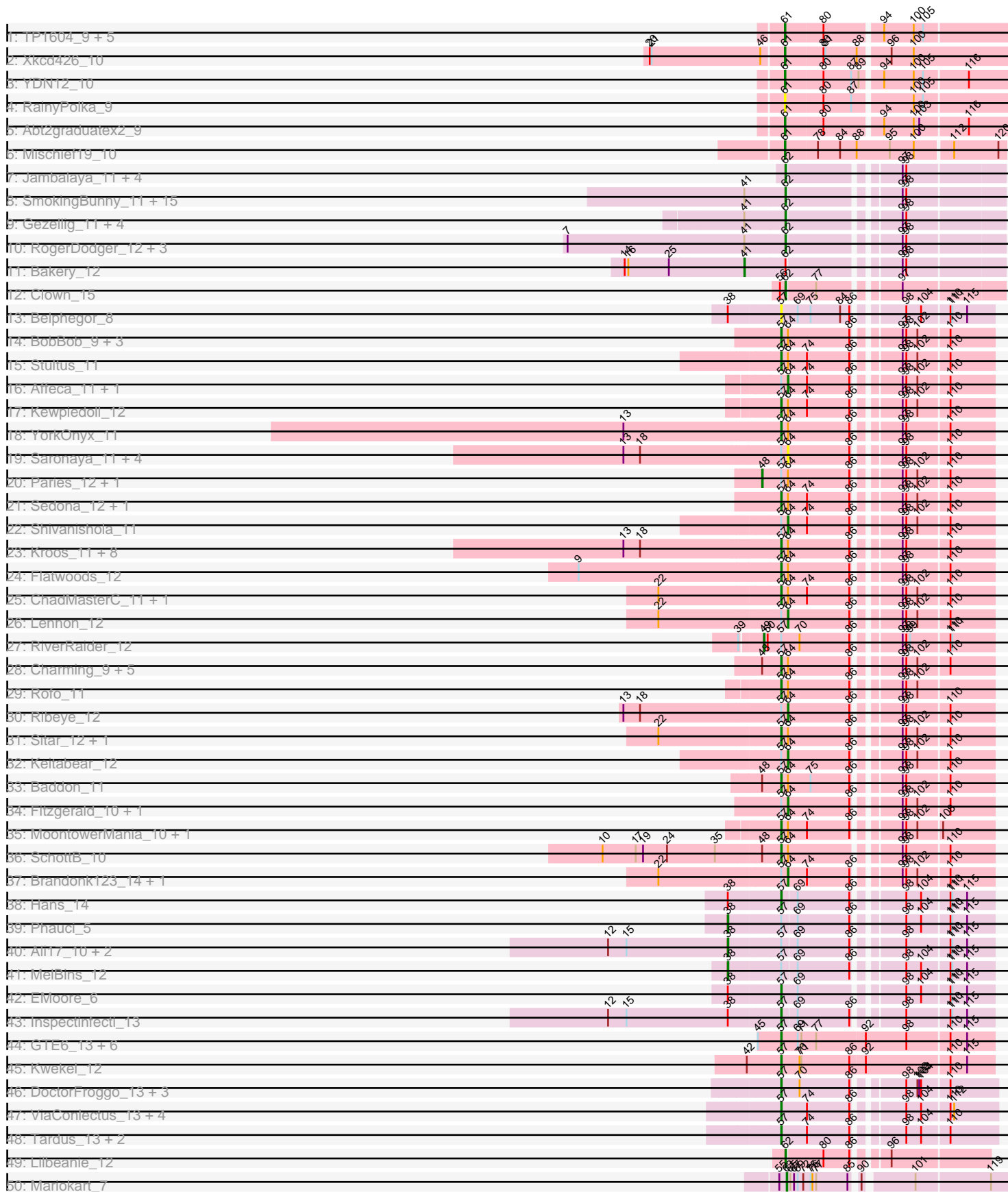
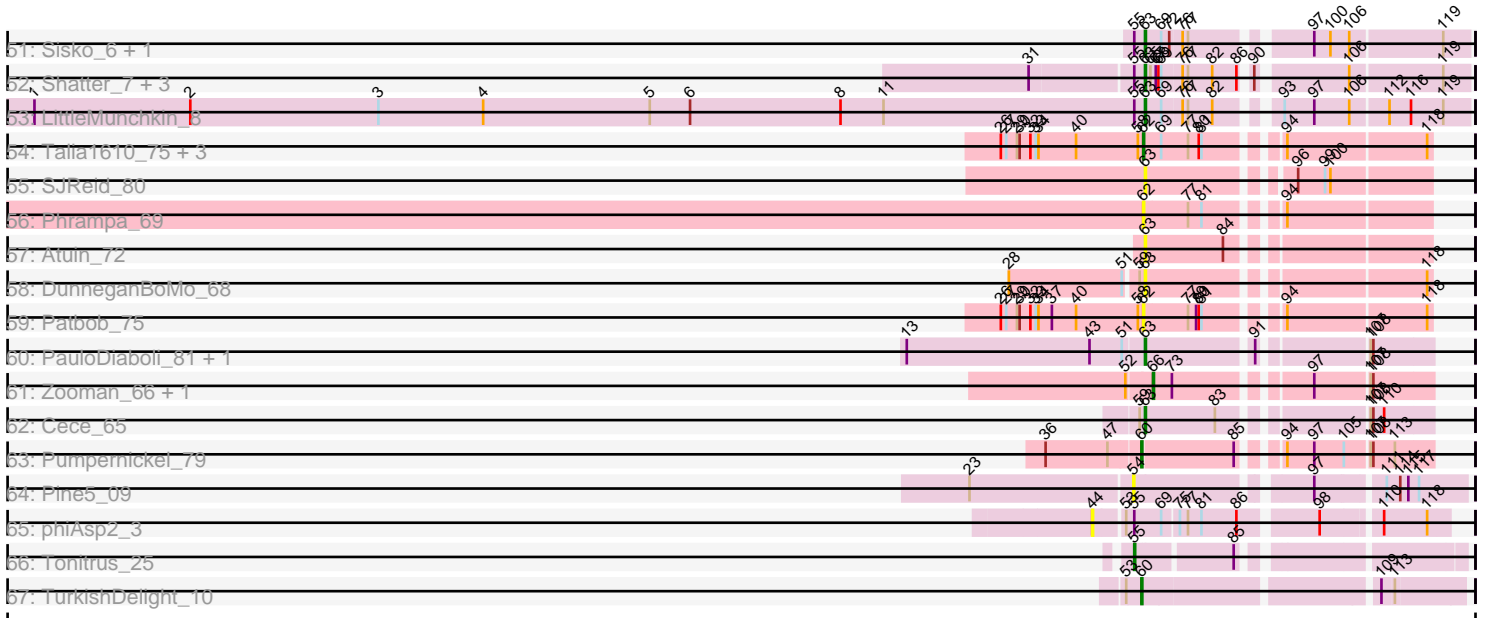


Pham 193795



Pham 193795



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 193795 Report

This analysis was run 11/02/24 on database version 579.

Pham number 193795 has 152 members, 26 are drafts.

Phages represented in each track:

- Track 1 : TP1604_9, Asis_9, Salete_9, BabyGotBac_9, Maih_9, BayC_9
- Track 2 : Xkcd426_10
- Track 3 : YDN12_10
- Track 4 : RainyPolka_9
- Track 5 : Abt2graduatex2_9
- Track 6 : Mischief19_10
- Track 7 : Jambalaya_11, Savbucketdawg_11, TillyBobJoe_11, Shinji_11, Portcullis_11
- Track 8 : SmokingBunny_11, Salvador_11, Twister6_11, Arri_12, Danyall_11, Fugax_11, VanDeWege_12, CoveyB_11, Nubi_11, Mutzi_11, Evamon_11, PinkCoffee_11, KimmyK_11, ClamChowder_11, Togo_11, Barb_11
- Track 9 : Gezellig_11, Phlop_11, Wizard_11, Fireball_12, PullumCavea_11
- Track 10 : RogerDodger_12, Valary_12, YungMoney_11, Halo3_12
- Track 11 : Bakery_12
- Track 12 : Clown_15
- Track 13 : Belphegor_8
- Track 14 : BobBob_9, Sanjuju_10, Angelicage_11, Jabberwocky_10
- Track 15 : Stultus_11
- Track 16 : Affeca_11, McKinley_12
- Track 17 : Kewpiedoll_12
- Track 18 : YorkOnyx_11
- Track 19 : Saronaya_11, Tycho_11, Kwobi_11, Derg_9, Gustavo_11
- Track 20 : Paries_12, Tangent_9
- Track 21 : Sedona_12, Bibwit_11
- Track 22 : Shivanishola_11
- Track 23 : Kroos_11, Tangerine_11, Gaea_11, StorminNorm_11, Ashertheman_11, LilHam_9, Baumdotcom_11, Bizzy_12, JKSyngboy_10
- Track 24 : Flatwoods_12
- Track 25 : ChadMasterC_11, Barsten_12
- Track 26 : Lennon_12
- Track 27 : RiverRaider_12
- Track 28 : Charming_9, Fosterous_9, Galadriel_13, Kamashten_12, Thing3_12, Nordenberg_6
- Track 29 : Rofo_11
- Track 30 : Ribeye_12
- Track 31 : Sitar_12, Vivi2_10
- Track 32 : Keitabear_12

- Track 33 : Baddon_11
- Track 34 : Fitzgerald_10, Ailee_11
- Track 35 : MoontowerMania_10, Love_13
- Track 36 : SchottB_10
- Track 37 : Brandonk123_14, Geodirt_11
- Track 38 : Hans_14
- Track 39 : Phauci_5
- Track 40 : Ali17_10, Phinally_12, Leonard_12
- Track 41 : MelBins_12
- Track 42 : EMOore_6
- Track 43 : Inspectinfecti_13
- Track 44 : GTE6_13, Twonlo_10, Tiamoceli_13, Chickadee_12, RoadKill_10, EdmundFerry_11, Dxdert_13
- Track 45 : Kwekel_12
- Track 46 : DoctorFroggo_13, Verity_13, Zipp_13, Delrey21_13
- Track 47 : ViaConlectus_13, Abblin_13, Natkenzie_13, Sampson_13, Scioto_13
- Track 48 : Tardus_13, APunk_14, Zitch_14
- Track 49 : Lilbeanie_12
- Track 50 : Mariokart_7
- Track 51 : Sisko_6, AnClar_6
- Track 52 : Shatter_7, Axumite_7, Fresco_7, Ligma_7
- Track 53 : LittleMunchkin_8
- Track 54 : Talia1610_75, Racecar_76, Mimi_82, Bloom_79
- Track 55 : SJReid_80
- Track 56 : Phrampa_69
- Track 57 : Atuin_72
- Track 58 : DunneganBoMo_68
- Track 59 : Patbob_75
- Track 60 : PauloDiaboli_81, A3Wally_81
- Track 61 : Zooman_66, Big4_70
- Track 62 : Cece_65
- Track 63 : Pumpernickel_79
- Track 64 : Pine5_09
- Track 65 : phiAsp2_3
- Track 66 : Tonitrus_25
- Track 67 : TurkishDelight_10

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

The start number called the most often in the published annotations is 57, it was called in 50 of the 126 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

• APunk_14, Abblin_13, Angelicage_11, Ashertheman_11, Baddon_11, Barsten_12, Baumdotcom_11, Belphegor_8, Bibwit_11, Bizzy_12, BobBob_9, ChadMasterC_11, Charming_9, Chickadee_12, Delrey21_13, Dxdert_13, DoctorFroggo_13, EMOore_6, EdmundFerry_11, Flatwoods_12, Fosterous_9, GTE6_13, Gaea_11, Galadriel_13, Hans_14, Inspectinfecti_13, JKSyngboy_10, Jabberwocky_10, Kamashten_12, Kewpiedoll_12, Kroos_11, Kwekel_12, LilHam_9, Love_13, MoontowerMania_10, Natkenzie_13, Nordenberg_6, RoadKill_10, Rofo_11,

Sampson_13, Sanjuju_10, SchottB_10, Scioto_13, Sedona_12, Sitar_12, StorminNorm_11, Stultus_11, Tangerine_11, Tardus_13, Thing3_12, Tiamoceli_13, Twonlo_10, Verity_13, ViaConlectus_13, Vivi2_10, YorkOnyx_11, Zipp_13, Zitch_14,

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

- Affeca_11, Ailee_11, Ali17_10, Brandonk123_14, Derg_9, Fitzgerald_10, Geodirt_11, Gustavo_11, Keitabear_12, Kwobi_11, Lennon_12, Leonard_12, McKinley_12, MelBins_12, Paries_12, Phauci_5, Phinally_12, Ribeye_12, RiverRaider_12, Saronaya_11, Shivanishola_11, Tangent_9, Tycho_11,

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

- A3Wally_81, Abt2graduatex2_9, AnClar_6, Arri_12, Asis_9, Atuin_72, Axumite_7, BabyGotBac_9, Bakery_12, Barb_11, BayC_9, Big4_70, Bloom_79, Cece_65, ClamChowder_11, Clown_15, CoveyB_11, Danyall_11, DunneganBoMo_68, Evamon_11, Fireball_12, Fresco_7, Fugax_11, Gezellig_11, Halo3_12, Jambalaya_11, KimmyK_11, Ligma_7, Lilbeanie_12, LittleMunchkin_8, Maih_9, Mariokart_7, Mimi_82, Mischief19_10, Mutzi_11, Nubi_11, Patbob_75, PauloDiaboli_81, Phlop_11, Phrampa_69, Pine5_09, PinkCoffee_11, Portcullis_11, PullumCavea_11, Pumpernickel_79, Racecar_76, RainyPolka_9, RogerDodger_12, SJReid_80, Salete_9, Salvador_11, Savbucketdawg_11, Shatter_7, Shinji_11, Sisko_6, SmokingBunny_11, TP1604_9, Talia1610_75, TillyBobJoe_11, Togo_11, Tonitrus_25, TurkishDelight_10, Twister6_11, Valary_12, VanDeWege_12, Wizard_11, Xkcd426_10, YDN12_10, YungMoney_11, Zooman_66, phiAsp2_3,

Summary by start number:

Start 38:

- Found in 9 of 152 (5.9%) of genes in pham
- Manual Annotations of this start: 5 of 126
- Called 55.6% of time when present
- Phage (with cluster) where this start called: Ali17_10 (DE2), Leonard_12 (DE2), MelBins_12 (DE2), Phauci_5 (DE2), Phinally_12 (DE2),

Start 41:

- Found in 26 of 152 (17.1%) of genes in pham
- Manual Annotations of this start: 1 of 126
- Called 3.8% of time when present
- Phage (with cluster) where this start called: Bakery_12 (DC1),

Start 44:

- Found in 1 of 152 (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: phiAsp2_3 (singleton),

Start 48:

- Found in 10 of 152 (6.6%) of genes in pham
- Manual Annotations of this start: 2 of 126
- Called 20.0% of time when present
- Phage (with cluster) where this start called: Paries_12 (DE1), Tangent_9 (DE1),

Start 49:

- Found in 1 of 152 (0.7%) of genes in pham

- Manual Annotations of this start: 1 of 126
- Called 100.0% of time when present
- Phage (with cluster) where this start called: RiverRaider_12 (DE1),

Start 54:

- Found in 1 of 152 (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: Pine5_09 (singleton),

Start 55:

- Found in 10 of 152 (6.6%) of genes in pham
- Manual Annotations of this start: 1 of 126
- Called 10.0% of time when present
- Phage (with cluster) where this start called: Tonitrus_25 (singleton),

Start 57:

- Found in 81 of 152 (53.3%) of genes in pham
- Manual Annotations of this start: 50 of 126
- Called 71.6% of time when present
- Phage (with cluster) where this start called: APunk_14 (DE4), Abblin_13 (DE4), Angelicage_11 (DE1), Ashertheman_11 (DE1), Baddon_11 (DE1), Barsten_12 (DE1), Baumdotcom_11 (DE1), Belphegor_8 (DE), Bibwit_11 (DE1), Bizzy_12 (DE1), BobBob_9 (DE1), ChadMasterC_11 (DE1), Charming_9 (DE1), Chickadee_12 (DE3), Delrey21_13 (DE4), Dextert_13 (DE3), DoctorFroggo_13 (DE4), EMOore_6 (DE2), EdmundFerry_11 (DE3), Flatwoods_12 (DE1), Fosterous_9 (DE1), GTE6_13 (DE3), Gaea_11 (DE1), Galadriel_13 (DE1), Hans_14 (DE2), Inspectinfecti_13 (DE2), JKSyngboy_10 (DE1), Jabberwocky_10 (DE1), Kamashten_12 (DE1), Kewpiedoll_12 (DE1), Kroos_11 (DE1), Kwekel_12 (DE3), LilHam_9 (DE1), Love_13 (DE1), MoontowerMania_10 (DE1), Natkenzie_13 (DE4), Nordenberg_6 (DE1), RoadKill_10 (DE3), Rofo_11 (DE1), Sampson_13 (DE4), Sanjuju_10 (DE1), SchottB_10 (DE1), Scioto_13 (DE4), Sedona_12 (DE1), Sitar_12 (DE1), StorminNorm_11 (DE1), Stultus_11 (DE1), Tangerine_11 (DE1), Tardus_13 (DE4), Thing3_12 (DE1), Tiamoceli_13 (DE3), Twonlo_10 (DE3), Verity_13 (DE4), ViaConlectus_13 (DE4), Vivi2_10 (DE1), YorkOnyx_11 (DE1), Zipp_13 (DE4), Zitch_14 (DE4),

Start 60:

- Found in 2 of 152 (1.3%) of genes in pham
- Manual Annotations of this start: 2 of 126
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Pumpernickel_79 (GD4), TurkishDelight_10 (singleton),

Start 61:

- Found in 11 of 152 (7.2%) of genes in pham
- Manual Annotations of this start: 10 of 126
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Abt2graduatex2_9 (BG), Asis_9 (BG), BabyGotBac_9 (BG), BayC_9 (BG), Maih_9 (BG), Mischief19_10 (BG), RainyPolka_9 (BG), Salete_9 (BG), TP1604_9 (BG), Xkcd426_10 (BG), YDN12_10 (BG),

Start 62:

- Found in 39 of 152 (25.7%) of genes in pham

- Manual Annotations of this start: 31 of 126
- Called 97.4% of time when present
- Phage (with cluster) where this start called: Arri_12 (DC1), Barb_11 (DC1), Bloom_79 (FC), ClamChowder_11 (DC1), Clown_15 (DC2), CoveyB_11 (DC1), Danyall_11 (DC1), Evamon_11 (DC1), Fireball_12 (DC1), Fugax_11 (DC1), Gezellig_11 (DC1), Halo3_12 (DC1), Jambalaya_11 (DC1), KimmyK_11 (DC1), Lilbeanie_12 (DE5), Mimi_82 (FC), Mutzi_11 (DC1), Nubi_11 (DC1), Patbob_75 (FC), Phlop_11 (DC1), Phrampa_69 (FC), PinkCoffee_11 (DC1), Portcullis_11 (DC1), PullumCavea_11 (DC1), Racecar_76 (FC), RogerDodger_12 (DC1), Salvador_11 (DC1), Savbucketdawg_11 (DC1), Shinji_11 (DC1), SmokingBunny_11 (DC1), Talia1610_75 (FC), TillyBobJoe_11 (DC1), Togo_11 (DC1), Twister6_11 (DC1), Valary_12 (DC1), VanDeWege_12 (DC1), Wizard_11 (DC1), YungMoney_11 (DC1),

Start 63:

- Found in 14 of 152 (9.2%) of genes in pham
- Manual Annotations of this start: 11 of 126
- Called 100.0% of time when present
- Phage (with cluster) where this start called: A3Wally_81 (GD1), AnClar_6 (DR), Atuin_72 (FC), Axumite_7 (DR), Cece_65 (GD3), DunneganBoMo_68 (FC), Fresco_7 (DR), Ligma_7 (DR), LittleMunchkin_8 (DR), Mariokart_7 (DR), PauloDiaboli_81 (GD1), SJReid_80 (FC), Shatter_7 (DR), Sisko_6 (DR),

Start 64:

- Found in 51 of 152 (33.6%) of genes in pham
- Manual Annotations of this start: 10 of 126
- Called 29.4% of time when present
- Phage (with cluster) where this start called: Affeca_11 (DE1), Ailee_11 (DE1), Brandonk123_14 (DE1), Derg_9 (DE1), Fitzgerald_10 (DE1), Geodirt_11 (DE1), Gustavo_11 (DE1), Keitabear_12 (DE1), Kwobi_11 (DE1), Lennon_12 (DE1), McKinley_12 (DE1), Ribeye_12 (DE1), Saronaya_11 (DE1), Shivanishola_11 (DE1), Tycho_11 (DE1),

Start 66:

- Found in 2 of 152 (1.3%) of genes in pham
- Manual Annotations of this start: 2 of 126
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Big4_70 (GD2), Zooman_66 (GD2),

Summary by clusters:

There are 16 clusters represented in this pham: GD1, singleton, BG, GD4, DE1, DE2, DE3, DE4, GD2, DE, DC2, FC, DE5, GD3, DR, DC1,

Info for manual annotations of cluster BG:

- Start number 61 was manually annotated 10 times for cluster BG.

Info for manual annotations of cluster DC1:

- Start number 41 was manually annotated 1 time for cluster DC1.
- Start number 62 was manually annotated 27 times for cluster DC1.

Info for manual annotations of cluster DC2:

- Start number 62 was manually annotated 1 time for cluster DC2.

Info for manual annotations of cluster DE1:

- Start number 48 was manually annotated 2 times for cluster DE1.
- Start number 49 was manually annotated 1 time for cluster DE1.
- Start number 57 was manually annotated 31 times for cluster DE1.
- Start number 64 was manually annotated 10 times for cluster DE1.

Info for manual annotations of cluster DE2:

- Start number 38 was manually annotated 5 times for cluster DE2.
- Start number 57 was manually annotated 3 times for cluster DE2.

Info for manual annotations of cluster DE3:

- Start number 57 was manually annotated 7 times for cluster DE3.

Info for manual annotations of cluster DE4:

- Start number 57 was manually annotated 9 times for cluster DE4.

Info for manual annotations of cluster DE5:

- Start number 62 was manually annotated 1 time for cluster DE5.

Info for manual annotations of cluster DR:

- Start number 63 was manually annotated 8 times for cluster DR.

Info for manual annotations of cluster FC:

- Start number 62 was manually annotated 2 times for cluster FC.

Info for manual annotations of cluster GD1:

- Start number 63 was manually annotated 2 times for cluster GD1.

Info for manual annotations of cluster GD2:

- Start number 66 was manually annotated 2 times for cluster GD2.

Info for manual annotations of cluster GD3:

- Start number 63 was manually annotated 1 time for cluster GD3.

Info for manual annotations of cluster GD4:

- Start number 60 was manually annotated 1 time for cluster GD4.

Gene Information:

Gene: A3Wally_81 Start: 29548, Stop: 29832, Start Num: 63

Candidate Starts for A3Wally_81:

(13, 29287), (43, 29491), (51, 29527), (Start: 63 @29548 has 11 MA's), (91, 29659), (107, 29764), (108, 29767),

Gene: APunk_14 Start: 7109, Stop: 7426, Start Num: 57

Candidate Starts for APunk_14:

(Start: 57 @7109 has 50 MA's), (74, 7151), (86, 7220), (98, 7283), (104, 7307), (110, 7349),

Gene: Abblin_13 Start: 6625, Stop: 6942, Start Num: 57

Candidate Starts for Abblin_13:

(Start: 57 @6625 has 50 MA's), (74, 6667), (86, 6736), (98, 6799), (104, 6823), (110, 6865), (112, 6871),

Gene: Abt2graduatex2_9 Start: 7673, Stop: 8023, Start Num: 61

Candidate Starts for Abt2graduatex2_9:

(Start: 61 @7673 has 10 MA's), (80, 7733), (94, 7820), (100, 7868), (103, 7877), (116, 7952),

Gene: Affeca_11 Start: 6351, Stop: 6650, Start Num: 64

Candidate Starts for Affeca_11:

(Start: 57 @6342 has 50 MA's), (Start: 64 @6351 has 10 MA's), (74, 6381), (86, 6450), (97, 6507), (98, 6513), (102, 6531), (110, 6579),

Gene: Ailee_11 Start: 7213, Stop: 7512, Start Num: 64

Candidate Starts for Ailee_11:

(Start: 57 @7204 has 50 MA's), (Start: 64 @7213 has 10 MA's), (86, 7312), (97, 7369), (98, 7375), (102, 7393), (110, 7441),

Gene: Ali17_10 Start: 6021, Stop: 6407, Start Num: 38

Candidate Starts for Ali17_10:

(12, 5826), (15, 5856), (Start: 38 @6021 has 5 MA's), (Start: 57 @6102 has 50 MA's), (69, 6123), (86, 6207), (98, 6270), (110, 6336), (111, 6339), (115, 6363),

Gene: AnClar_6 Start: 5256, Stop: 5579, Start Num: 63

Candidate Starts for AnClar_6:

(Start: 55 @5244 has 1 MA's), (Start: 63 @5256 has 11 MA's), (69, 5274), (72, 5283), (76, 5295), (77, 5301), (97, 5412), (100, 5430), (106, 5451), (119, 5550),

Gene: Angelicage_11 Start: 6771, Stop: 7079, Start Num: 57

Candidate Starts for Angelicage_11:

(Start: 57 @6771 has 50 MA's), (Start: 64 @6780 has 10 MA's), (86, 6879), (97, 6936), (98, 6942), (102, 6960), (110, 7008),

Gene: Arri_12 Start: 5316, Stop: 5630, Start Num: 62

Candidate Starts for Arri_12:

(Start: 41 @5253 has 1 MA's), (Start: 62 @5316 has 31 MA's), (97, 5472), (98, 5478),

Gene: Ashertheman_11 Start: 5950, Stop: 6258, Start Num: 57

Candidate Starts for Ashertheman_11:

(13, 5698), (18, 5725), (Start: 57 @5950 has 50 MA's), (Start: 64 @5959 has 10 MA's), (86, 6058), (97, 6115), (98, 6121), (110, 6187),

Gene: Asis_9 Start: 7730, Stop: 8080, Start Num: 61

Candidate Starts for Asis_9:

(Start: 61 @7730 has 10 MA's), (80, 7790), (94, 7877), (100, 7925), (105, 7940),

Gene: Atuin_72 Start: 30721, Stop: 31002, Start Num: 63

Candidate Starts for Atuin_72:

(Start: 63 @30721 has 11 MA's), (84, 30805),

Gene: Axumite_7 Start: 4953, Stop: 5276, Start Num: 63

Candidate Starts for Axumite_7:

(31, 4833), (Start: 55 @4941 has 1 MA's), (Start: 63 @4953 has 11 MA's), (65, 4959), (67, 4965), (68, 4968), (69, 4971), (76, 4992), (77, 4998), (82, 5025), (86, 5052), (90, 5058), (106, 5148), (119, 5247),

Gene: BabyGotBac_9 Start: 7730, Stop: 8080, Start Num: 61

Candidate Starts for BabyGotBac_9:

(Start: 61 @7730 has 10 MA's), (80, 7790), (94, 7877), (100, 7925), (105, 7940),

Gene: Baddon_11 Start: 6660, Stop: 6968, Start Num: 57

Candidate Starts for Baddon_11:

(Start: 48 @6630 has 2 MA's), (Start: 57 @6660 has 50 MA's), (Start: 64 @6669 has 10 MA's), (75, 6705), (86, 6768), (97, 6825), (98, 6831), (110, 6897),

Gene: Bakery_12 Start: 4954, Stop: 5331, Start Num: 41

Candidate Starts for Bakery_12:

(14, 4762), (16, 4768), (25, 4834), (Start: 41 @4954 has 1 MA's), (Start: 62 @5017 has 31 MA's), (97, 5173), (98, 5179),

Gene: Barb_11 Start: 5272, Stop: 5586, Start Num: 62

Candidate Starts for Barb_11:

(Start: 41 @5209 has 1 MA's), (Start: 62 @5272 has 31 MA's), (97, 5428), (98, 5434),

Gene: Barsten_12 Start: 6156, Stop: 6464, Start Num: 57

Candidate Starts for Barsten_12:

(22, 5964), (Start: 57 @6156 has 50 MA's), (Start: 64 @6165 has 10 MA's), (74, 6195), (86, 6264), (97, 6321), (98, 6327), (102, 6345), (110, 6393),

Gene: Baumdotcom_11 Start: 5973, Stop: 6281, Start Num: 57

Candidate Starts for Baumdotcom_11:

(13, 5721), (18, 5748), (Start: 57 @5973 has 50 MA's), (Start: 64 @5982 has 10 MA's), (86, 6081), (97, 6138), (98, 6144), (110, 6210),

Gene: BayC_9 Start: 7730, Stop: 8080, Start Num: 61

Candidate Starts for BayC_9:

(Start: 61 @7730 has 10 MA's), (80, 7790), (94, 7877), (100, 7925), (105, 7940),

Gene: Belphegor_8 Start: 3927, Stop: 4235, Start Num: 57

Candidate Starts for Belphegor_8:

(Start: 38 @3846 has 5 MA's), (Start: 57 @3927 has 50 MA's), (69, 3951), (75, 3972), (84, 4020), (86, 4035), (98, 4098), (104, 4122), (110, 4164), (111, 4167), (115, 4191),

Gene: Bibwit_11 Start: 7027, Stop: 7335, Start Num: 57

Candidate Starts for Bibwit_11:

(Start: 57 @7027 has 50 MA's), (Start: 64 @7036 has 10 MA's), (74, 7066), (86, 7135), (97, 7192), (98, 7198), (102, 7216), (110, 7264),

Gene: Big4_70 Start: 28857, Stop: 29132, Start Num: 66

Candidate Starts for Big4_70:

(52, 28842), (Start: 66 @28857 has 2 MA's), (73, 28878), (97, 29007), (107, 29064), (108, 29067),

Gene: Bizzy_12 Start: 6147, Stop: 6455, Start Num: 57

Candidate Starts for Bizzy_12:

(13, 5895), (18, 5922), (Start: 57 @6147 has 50 MA's), (Start: 64 @6156 has 10 MA's), (86, 6255), (97, 6312), (98, 6318), (110, 6384),

Gene: Bloom_79 Start: 33362, Stop: 33646, Start Num: 62

Candidate Starts for Bloom_79:

(26, 33203), (27, 33209), (29, 33221), (30, 33224), (32, 33236), (33, 33242), (34, 33245), (40, 33287), (58, 33356), (Start: 62 @33362 has 31 MA's), (69, 33380), (77, 33410), (80, 33422), (81, 33425), (94, 33491), (118, 33641),

Gene: BobBob_9 Start: 5693, Stop: 6001, Start Num: 57

Candidate Starts for BobBob_9:

(Start: 57 @5693 has 50 MA's), (Start: 64 @5702 has 10 MA's), (86, 5801), (97, 5858), (98, 5864), (102, 5882), (110, 5930),

Gene: Brandonk123_14 Start: 6849, Stop: 7148, Start Num: 64

Candidate Starts for Brandonk123_14:

(22, 6648), (Start: 57 @6840 has 50 MA's), (Start: 64 @6849 has 10 MA's), (74, 6879), (86, 6948), (97, 7005), (98, 7011), (102, 7029), (110, 7077),

Gene: Cece_65 Start: 27218, Stop: 27502, Start Num: 63

Candidate Starts for Cece_65:

(59, 27212), (Start: 63 @27218 has 11 MA's), (83, 27296), (107, 27434), (108, 27437), (110, 27449),

Gene: ChadMasterC_11 Start: 6428, Stop: 6736, Start Num: 57

Candidate Starts for ChadMasterC_11:

(22, 6236), (Start: 57 @6428 has 50 MA's), (Start: 64 @6437 has 10 MA's), (74, 6467), (86, 6536), (97, 6593), (98, 6599), (102, 6617), (110, 6665),

Gene: Charming_9 Start: 5695, Stop: 6003, Start Num: 57

Candidate Starts for Charming_9:

(Start: 48 @5665 has 2 MA's), (Start: 57 @5695 has 50 MA's), (Start: 64 @5704 has 10 MA's), (86, 5803), (97, 5860), (98, 5866), (102, 5884), (110, 5932),

Gene: Chickadee_12 Start: 5433, Stop: 5771, Start Num: 57

Candidate Starts for Chickadee_12:

(45, 5397), (Start: 57 @5433 has 50 MA's), (69, 5460), (71, 5466), (77, 5490), (92, 5568), (98, 5634), (110, 5700), (115, 5727),

Gene: ClamChowder_11 Start: 5272, Stop: 5586, Start Num: 62

Candidate Starts for ClamChowder_11:

(Start: 41 @5209 has 1 MA's), (Start: 62 @5272 has 31 MA's), (97, 5428), (98, 5434),

Gene: Clown_15 Start: 8549, Stop: 8863, Start Num: 62

Candidate Starts for Clown_15:

(56, 8540), (Start: 62 @8549 has 31 MA's), (77, 8594), (97, 8705),

Gene: CoveyB_11 Start: 5144, Stop: 5458, Start Num: 62

Candidate Starts for CoveyB_11:

(Start: 41 @5081 has 1 MA's), (Start: 62 @5144 has 31 MA's), (97, 5300), (98, 5306),

Gene: Danyall_11 Start: 5144, Stop: 5458, Start Num: 62

Candidate Starts for Danyall_11:

(Start: 41 @5081 has 1 MA's), (Start: 62 @5144 has 31 MA's), (97, 5300), (98, 5306),

Gene: Delrey21_13 Start: 6898, Stop: 7215, Start Num: 57

Candidate Starts for Delrey21_13:

(Start: 57 @6898 has 50 MA's), (70, 6928), (86, 7009), (98, 7072), (102, 7090), (103, 7093), (104, 7096), (110, 7138),

Gene: Derg_9 Start: 5286, Stop: 5585, Start Num: 64

Candidate Starts for Derg_9:

(13, 5025), (18, 5052), (Start: 57 @5277 has 50 MA's), (Start: 64 @5286 has 10 MA's), (86, 5385), (97, 5442), (98, 5448), (110, 5514),

Gene: Dxdert_13 Start: 5891, Stop: 6229, Start Num: 57

Candidate Starts for Dxdert_13:

(45, 5855), (Start: 57 @5891 has 50 MA's), (69, 5918), (71, 5924), (77, 5948), (92, 6026), (98, 6092), (110, 6158), (115, 6185),

Gene: DoctorFroggo_13 Start: 6898, Stop: 7215, Start Num: 57

Candidate Starts for DoctorFroggo_13:

(Start: 57 @6898 has 50 MA's), (70, 6928), (86, 7009), (98, 7072), (102, 7090), (103, 7093), (104, 7096), (110, 7138),

Gene: DunneganBoMo_68 Start: 27488, Stop: 27772, Start Num: 63

Candidate Starts for DunneganBoMo_68:

(28, 27344), (51, 27470), (59, 27482), (Start: 63 @27488 has 11 MA's), (118, 27767),

Gene: EMoore_6 Start: 4085, Stop: 4393, Start Num: 57

Candidate Starts for EMoore_6:

(Start: 38 @4004 has 5 MA's), (Start: 57 @4085 has 50 MA's), (69, 4109), (98, 4256), (104, 4280), (110, 4322), (111, 4325), (115, 4349),

Gene: EdmundFerry_11 Start: 5448, Stop: 5786, Start Num: 57

Candidate Starts for EdmundFerry_11:

(45, 5412), (Start: 57 @5448 has 50 MA's), (69, 5475), (71, 5481), (77, 5505), (92, 5583), (98, 5649), (110, 5715), (115, 5742),

Gene: Evamon_11 Start: 5125, Stop: 5439, Start Num: 62

Candidate Starts for Evamon_11:

(Start: 41 @5062 has 1 MA's), (Start: 62 @5125 has 31 MA's), (97, 5281), (98, 5287),

Gene: Fireball_12 Start: 5251, Stop: 5565, Start Num: 62

Candidate Starts for Fireball_12:

(Start: 41 @5188 has 1 MA's), (Start: 62 @5251 has 31 MA's), (97, 5407), (98, 5413),

Gene: Fitzgerald_10 Start: 6630, Stop: 6929, Start Num: 64

Candidate Starts for Fitzgerald_10:

(Start: 57 @6621 has 50 MA's), (Start: 64 @6630 has 10 MA's), (86, 6729), (97, 6786), (98, 6792), (102, 6810), (110, 6858),

Gene: Flatwoods_12 Start: 6151, Stop: 6459, Start Num: 57

Candidate Starts for Flatwoods_12:

(9, 5824), (Start: 57 @6151 has 50 MA's), (Start: 64 @6160 has 10 MA's), (86, 6259), (97, 6316), (98, 6322), (110, 6388),

Gene: Fosterous_9 Start: 5693, Stop: 6001, Start Num: 57

Candidate Starts for Fosterous_9:

(Start: 48 @5663 has 2 MA's), (Start: 57 @5693 has 50 MA's), (Start: 64 @5702 has 10 MA's), (86, 5801), (97, 5858), (98, 5864), (102, 5882), (110, 5930),

Gene: Fresco_7 Start: 4953, Stop: 5276, Start Num: 63

Candidate Starts for Fresco_7:

(31, 4833), (Start: 55 @4941 has 1 MA's), (Start: 63 @4953 has 11 MA's), (65, 4959), (67, 4965), (68, 4968), (69, 4971), (76, 4992), (77, 4998), (82, 5025), (86, 5052), (90, 5058), (106, 5148), (119, 5247),

Gene: Fugax_11 Start: 5272, Stop: 5586, Start Num: 62

Candidate Starts for Fugax_11:

(Start: 41 @5209 has 1 MA's), (Start: 62 @5272 has 31 MA's), (97, 5428), (98, 5434),

Gene: GTE6_13 Start: 5949, Stop: 6287, Start Num: 57

Candidate Starts for GTE6_13:

(45, 5913), (Start: 57 @5949 has 50 MA's), (69, 5976), (71, 5982), (77, 6006), (92, 6084), (98, 6150), (110, 6216), (115, 6243),

Gene: Gaea_11 Start: 5953, Stop: 6261, Start Num: 57

Candidate Starts for Gaea_11:

(13, 5701), (18, 5728), (Start: 57 @5953 has 50 MA's), (Start: 64 @5962 has 10 MA's), (86, 6061), (97, 6118), (98, 6124), (110, 6190),

Gene: Galadriel_13 Start: 6461, Stop: 6769, Start Num: 57

Candidate Starts for Galadriel_13:

(Start: 48 @6431 has 2 MA's), (Start: 57 @6461 has 50 MA's), (Start: 64 @6470 has 10 MA's), (86, 6569), (97, 6626), (98, 6632), (102, 6650), (110, 6698),

Gene: Geodirt_11 Start: 6477, Stop: 6776, Start Num: 64

Candidate Starts for Geodirt_11:

(22, 6276), (Start: 57 @6468 has 50 MA's), (Start: 64 @6477 has 10 MA's), (74, 6507), (86, 6576), (97, 6633), (98, 6639), (102, 6657), (110, 6705),

Gene: Gezellig_11 Start: 5251, Stop: 5565, Start Num: 62

Candidate Starts for Gezellig_11:

(Start: 41 @5188 has 1 MA's), (Start: 62 @5251 has 31 MA's), (97, 5407), (98, 5413),

Gene: Gustavo_11 Start: 5959, Stop: 6258, Start Num: 64

Candidate Starts for Gustavo_11:

(13, 5698), (18, 5725), (Start: 57 @5950 has 50 MA's), (Start: 64 @5959 has 10 MA's), (86, 6058), (97, 6115), (98, 6121), (110, 6187),

Gene: Halo3_12 Start: 5583, Stop: 5888, Start Num: 62

Candidate Starts for Halo3_12:

(7, 5232), (Start: 41 @5520 has 1 MA's), (Start: 62 @5583 has 31 MA's), (97, 5739), (98, 5745),

Gene: Hans_14 Start: 6642, Stop: 6947, Start Num: 57

Candidate Starts for Hans_14:

(Start: 38 @6561 has 5 MA's), (Start: 57 @6642 has 50 MA's), (69, 6663), (86, 6747), (98, 6810), (104, 6834), (110, 6876), (111, 6879), (115, 6903),

Gene: Inspectinfecti_13 Start: 7159, Stop: 7464, Start Num: 57

Candidate Starts for Inspectinfecti_13:

(12, 6883), (15, 6913), (Start: 38 @7078 has 5 MA's), (Start: 57 @7159 has 50 MA's), (69, 7180), (86, 7264), (98, 7327), (110, 7393), (111, 7396), (115, 7420),

Gene: JKSyngboy_10 Start: 6461, Stop: 6769, Start Num: 57

Candidate Starts for JKSyngboy_10:

(13, 6209), (18, 6236), (Start: 57 @6461 has 50 MA's), (Start: 64 @6470 has 10 MA's), (86, 6569), (97, 6626), (98, 6632), (110, 6698),

Gene: Jabberwocky_10 Start: 6623, Stop: 6931, Start Num: 57

Candidate Starts for Jabberwocky_10:

(Start: 57 @6623 has 50 MA's), (Start: 64 @6632 has 10 MA's), (86, 6731), (97, 6788), (98, 6794), (102, 6812), (110, 6860),

Gene: Jambalaya_11 Start: 4956, Stop: 5270, Start Num: 62

Candidate Starts for Jambalaya_11:

(Start: 62 @4956 has 31 MA's), (97, 5112), (98, 5118),

Gene: Kamashten_12 Start: 6782, Stop: 7090, Start Num: 57

Candidate Starts for Kamashten_12:

(Start: 48 @6752 has 2 MA's), (Start: 57 @6782 has 50 MA's), (Start: 64 @6791 has 10 MA's), (86, 6890), (97, 6947), (98, 6953), (102, 6971), (110, 7019),

Gene: Keitabear_12 Start: 7843, Stop: 8142, Start Num: 64

Candidate Starts for Keitabear_12:

(Start: 57 @7834 has 50 MA's), (Start: 64 @7843 has 10 MA's), (86, 7942), (97, 7999), (98, 8005), (102, 8023), (110, 8071),

Gene: Kewpiedoll_12 Start: 6184, Stop: 6492, Start Num: 57

Candidate Starts for Kewpiedoll_12:

(Start: 57 @6184 has 50 MA's), (Start: 64 @6193 has 10 MA's), (74, 6223), (86, 6292), (97, 6349), (98, 6355), (102, 6373), (110, 6421),

Gene: KimmyK_11 Start: 5272, Stop: 5586, Start Num: 62

Candidate Starts for KimmyK_11:

(Start: 41 @5209 has 1 MA's), (Start: 62 @5272 has 31 MA's), (97, 5428), (98, 5434),

Gene: Kroos_11 Start: 6114, Stop: 6422, Start Num: 57

Candidate Starts for Kroos_11:

(13, 5862), (18, 5889), (Start: 57 @6114 has 50 MA's), (Start: 64 @6123 has 10 MA's), (86, 6222), (97, 6279), (98, 6285), (110, 6351),

Gene: Kwekel_12 Start: 5442, Stop: 5780, Start Num: 57

Candidate Starts for Kwekel_12:

(42, 5388), (Start: 57 @5442 has 50 MA's), (70, 5472), (71, 5475), (86, 5553), (92, 5577), (110, 5709), (115, 5736),

Gene: Kwobi_11 Start: 5962, Stop: 6261, Start Num: 64

Candidate Starts for Kwobi_11:

(13, 5701), (18, 5728), (Start: 57 @5953 has 50 MA's), (Start: 64 @5962 has 10 MA's), (86, 6061), (97, 6118), (98, 6124), (110, 6190),

Gene: Lennon_12 Start: 7052, Stop: 7351, Start Num: 64

Candidate Starts for Lennon_12:

(22, 6851), (Start: 57 @7043 has 50 MA's), (Start: 64 @7052 has 10 MA's), (86, 7151), (97, 7208), (98, 7214), (102, 7232), (110, 7280),

Gene: Leonard_12 Start: 6673, Stop: 7059, Start Num: 38

Candidate Starts for Leonard_12:

(12, 6478), (15, 6508), (Start: 38 @6673 has 5 MA's), (Start: 57 @6754 has 50 MA's), (69, 6775), (86, 6859), (98, 6922), (110, 6988), (111, 6991), (115, 7015),

Gene: Ligma_7 Start: 4953, Stop: 5276, Start Num: 63

Candidate Starts for Ligma_7:

(31, 4833), (Start: 55 @4941 has 1 MA's), (Start: 63 @4953 has 11 MA's), (65, 4959), (67, 4965), (68, 4968), (69, 4971), (76, 4992), (77, 4998), (82, 5025), (86, 5052), (90, 5058), (106, 5148), (119, 5247),

Gene: LilHam_9 Start: 5269, Stop: 5577, Start Num: 57

Candidate Starts for LilHam_9:

(13, 5017), (18, 5044), (Start: 57 @5269 has 50 MA's), (Start: 64 @5278 has 10 MA's), (86, 5377), (97, 5434), (98, 5440), (110, 5506),

Gene: Lilbeanie_12 Start: 4954, Stop: 5247, Start Num: 62

Candidate Starts for Lilbeanie_12:

(Start: 62 @4954 has 31 MA's), (80, 5011), (86, 5053), (96, 5092),

Gene: LittleMunchkin_8 Start: 6237, Stop: 6560, Start Num: 63

Candidate Starts for LittleMunchkin_8:

(1, 4998), (2, 5172), (3, 5382), (4, 5499), (5, 5685), (6, 5730), (8, 5898), (11, 5946), (Start: 55 @6225 has 1 MA's), (Start: 63 @6237 has 11 MA's), (69, 6255), (76, 6276), (77, 6282), (82, 6309), (93, 6360), (97, 6393), (106, 6432), (112, 6471), (116, 6495), (119, 6531),

Gene: Love_13 Start: 6772, Stop: 7080, Start Num: 57

Candidate Starts for Love_13:

(Start: 57 @6772 has 50 MA's), (Start: 64 @6781 has 10 MA's), (74, 6811), (86, 6880), (97, 6937), (98, 6943), (102, 6961), (108, 6997),

Gene: Maih_9 Start: 7729, Stop: 8079, Start Num: 61

Candidate Starts for Maih_9:

(Start: 61 @7729 has 10 MA's), (80, 7789), (94, 7876), (100, 7924), (105, 7939),

Gene: Mariokart_7 Start: 4960, Stop: 5283, Start Num: 63

Candidate Starts for Mariokart_7:

(Start: 55 @4948 has 1 MA's), (Start: 63 @4960 has 11 MA's), (65, 4966), (67, 4972), (69, 4978), (72, 4987), (75, 4996), (76, 4999), (77, 5005), (85, 5056), (90, 5065), (101, 5137), (119, 5254),

Gene: McKinley_12 Start: 7140, Stop: 7439, Start Num: 64

Candidate Starts for McKinley_12:

(Start: 57 @7131 has 50 MA's), (Start: 64 @7140 has 10 MA's), (74, 7170), (86, 7239), (97, 7296), (98, 7302), (102, 7320), (110, 7368),

Gene: MelBins_12 Start: 6449, Stop: 6835, Start Num: 38

Candidate Starts for MelBins_12:

(Start: 38 @6449 has 5 MA's), (Start: 57 @6530 has 50 MA's), (69, 6551), (86, 6635), (98, 6698), (104, 6722), (110, 6764), (111, 6767), (115, 6791),

Gene: Mimi_82 Start: 32709, Stop: 32993, Start Num: 62

Candidate Starts for Mimi_82:

(26, 32550), (27, 32556), (29, 32568), (30, 32571), (32, 32583), (33, 32589), (34, 32592), (40, 32634), (58, 32703), (Start: 62 @32709 has 31 MA's), (69, 32727), (77, 32757), (80, 32769), (81, 32772), (94, 32838), (118, 32988),

Gene: Mischief19_10 Start: 9272, Stop: 9619, Start Num: 61

Candidate Starts for Mischief19_10:

(Start: 61 @9272 has 10 MA's), (78, 9323), (84, 9359), (88, 9386), (95, 9440), (100, 9479), (112, 9536), (120, 9608),

Gene: MoontowerMania_10 Start: 6171, Stop: 6479, Start Num: 57

Candidate Starts for MoontowerMania_10:

(Start: 57 @6171 has 50 MA's), (Start: 64 @6180 has 10 MA's), (74, 6210), (86, 6279), (97, 6336), (98, 6342), (102, 6360), (108, 6396),

Gene: Mutzi_11 Start: 5144, Stop: 5458, Start Num: 62

Candidate Starts for Mutzi_11:

(Start: 41 @5081 has 1 MA's), (Start: 62 @5144 has 31 MA's), (97, 5300), (98, 5306),

Gene: Natkenzie_13 Start: 6625, Stop: 6942, Start Num: 57

Candidate Starts for Natkenzie_13:

(Start: 57 @6625 has 50 MA's), (74, 6667), (86, 6736), (98, 6799), (104, 6823), (110, 6865), (112, 6871),

Gene: Nordenberg_6 Start: 4315, Stop: 4623, Start Num: 57

Candidate Starts for Nordenberg_6:

(Start: 48 @4285 has 2 MA's), (Start: 57 @4315 has 50 MA's), (Start: 64 @4324 has 10 MA's), (86, 4423), (97, 4480), (98, 4486), (102, 4504), (110, 4552),

Gene: Nubi_11 Start: 5144, Stop: 5449, Start Num: 62

Candidate Starts for Nubi_11:

(Start: 41 @5081 has 1 MA's), (Start: 62 @5144 has 31 MA's), (97, 5300), (98, 5306),

Gene: Paries_12 Start: 6433, Stop: 6771, Start Num: 48

Candidate Starts for Paries_12:

(Start: 48 @6433 has 2 MA's), (Start: 57 @6463 has 50 MA's), (Start: 64 @6472 has 10 MA's), (86, 6571), (97, 6628), (98, 6634), (102, 6652), (110, 6700),

Gene: Patbob_75 Start: 33002, Stop: 33286, Start Num: 62

Candidate Starts for Patbob_75:

(26, 32843), (27, 32849), (29, 32861), (30, 32864), (32, 32876), (33, 32882), (34, 32885), (37, 32900), (40, 32927), (58, 32996), (Start: 62 @33002 has 31 MA's), (77, 33050), (79, 33059), (80, 33062), (81, 33065), (94, 33131), (118, 33281),

Gene: PauloDiaboli_81 Start: 28905, Stop: 29189, Start Num: 63

Candidate Starts for PauloDiaboli_81:

(13, 28644), (43, 28848), (51, 28884), (Start: 63 @28905 has 11 MA's), (91, 29016), (107, 29121), (108, 29124),

Gene: Phauci_5 Start: 3202, Stop: 3588, Start Num: 38

Candidate Starts for Phauci_5:

(Start: 38 @3202 has 5 MA's), (Start: 57 @3283 has 50 MA's), (69, 3304), (86, 3388), (98, 3451), (104, 3475), (110, 3517), (111, 3520), (115, 3544),

Gene: Phinally_12 Start: 6670, Stop: 7056, Start Num: 38

Candidate Starts for Phinally_12:

(12, 6475), (15, 6505), (Start: 38 @6670 has 5 MA's), (Start: 57 @6751 has 50 MA's), (69, 6772), (86, 6856), (98, 6919), (110, 6985), (111, 6988), (115, 7012),

Gene: Phlop_11 Start: 5251, Stop: 5565, Start Num: 62

Candidate Starts for Phlop_11:

(Start: 41 @5188 has 1 MA's), (Start: 62 @5251 has 31 MA's), (97, 5407), (98, 5413),

Gene: Phrampa_69 Start: 30028, Stop: 30312, Start Num: 62

Candidate Starts for Phrampa_69:

(Start: 62 @30028 has 31 MA's), (77, 30076), (81, 30091), (94, 30157),

Gene: Pine5_09 Start: 5622, Stop: 5945, Start Num: 54

Candidate Starts for Pine5_09:

(23, 5445), (54, 5622), (97, 5793), (111, 5859), (114, 5871), (115, 5880), (117, 5892),

Gene: PinkCoffee_11 Start: 5281, Stop: 5595, Start Num: 62

Candidate Starts for PinkCoffee_11:

(Start: 41 @5218 has 1 MA's), (Start: 62 @5281 has 31 MA's), (97, 5437), (98, 5443),

Gene: Portcullis_11 Start: 5204, Stop: 5518, Start Num: 62

Candidate Starts for Portcullis_11:

(Start: 62 @5204 has 31 MA's), (97, 5360), (98, 5366),

Gene: PullumCavea_11 Start: 5251, Stop: 5565, Start Num: 62

Candidate Starts for PullumCavea_11:

(Start: 41 @5188 has 1 MA's), (Start: 62 @5251 has 31 MA's), (97, 5407), (98, 5413),

Gene: Pumpernickel_79 Start: 31092, Stop: 31376, Start Num: 60

Candidate Starts for Pumpernickel_79:

(36, 30990), (47, 31059), (Start: 60 @31092 has 2 MA's), (85, 31191), (94, 31221), (97, 31251), (105, 31284), (107, 31308), (108, 31311), (113, 31335),

Gene: Racecar_76 Start: 33362, Stop: 33646, Start Num: 62

Candidate Starts for Racecar_76:

(26, 33203), (27, 33209), (29, 33221), (30, 33224), (32, 33236), (33, 33242), (34, 33245), (40, 33287), (58, 33356), (Start: 62 @33362 has 31 MA's), (69, 33380), (77, 33410), (80, 33422), (81, 33425), (94, 33491), (118, 33641),

Gene: RainyPolka_9 Start: 7682, Stop: 8032, Start Num: 61

Candidate Starts for RainyPolka_9:

(Start: 61 @7682 has 10 MA's), (80, 7742), (87, 7787), (100, 7877), (105, 7892),

Gene: Ribeye_12 Start: 6157, Stop: 6456, Start Num: 64

Candidate Starts for Ribeye_12:

(13, 5896), (18, 5923), (Start: 57 @6148 has 50 MA's), (Start: 64 @6157 has 10 MA's), (86, 6256), (97, 6313), (98, 6319), (110, 6385),

Gene: RiverRaider_12 Start: 5677, Stop: 6012, Start Num: 49

Candidate Starts for RiverRaider_12:

(39, 5644), (Start: 49 @5677 has 1 MA's), (50, 5683), (Start: 57 @5704 has 50 MA's), (70, 5731), (86, 5812), (97, 5869), (98, 5875), (99, 5881), (110, 5941), (111, 5944),

Gene: RoadKill_10 Start: 4904, Stop: 5242, Start Num: 57

Candidate Starts for RoadKill_10:

(45, 4868), (Start: 57 @4904 has 50 MA's), (69, 4931), (71, 4937), (77, 4961), (92, 5039), (98, 5105), (110, 5171), (115, 5198),

Gene: Rofo_11 Start: 6703, Stop: 7011, Start Num: 57

Candidate Starts for Rofo_11:

(Start: 57 @6703 has 50 MA's), (Start: 64 @6712 has 10 MA's), (86, 6811), (97, 6868), (98, 6874), (102, 6892),

Gene: RogerDodger_12 Start: 5508, Stop: 5822, Start Num: 62

Candidate Starts for RogerDodger_12:

(7, 5157), (Start: 41 @5445 has 1 MA's), (Start: 62 @5508 has 31 MA's), (97, 5664), (98, 5670),

Gene: SJReid_80 Start: 34582, Stop: 34863, Start Num: 63

Candidate Starts for SJReid_80:

(Start: 63 @34582 has 11 MA's), (96, 34720), (99, 34750), (100, 34756),

Gene: Salete_9 Start: 7730, Stop: 8080, Start Num: 61

Candidate Starts for Salete_9:

(Start: 61 @7730 has 10 MA's), (80, 7790), (94, 7877), (100, 7925), (105, 7940),

Gene: Salvador_11 Start: 5123, Stop: 5437, Start Num: 62

Candidate Starts for Salvador_11:

(Start: 41 @5060 has 1 MA's), (Start: 62 @5123 has 31 MA's), (97, 5279), (98, 5285),

Gene: Sampson_13 Start: 6570, Stop: 6887, Start Num: 57

Candidate Starts for Sampson_13:

(Start: 57 @6570 has 50 MA's), (74, 6612), (86, 6681), (98, 6744), (104, 6768), (110, 6810), (112, 6816),

Gene: Sanjuju_10 Start: 6661, Stop: 6969, Start Num: 57

Candidate Starts for Sanjuju_10:

(Start: 57 @6661 has 50 MA's), (Start: 64 @6670 has 10 MA's), (86, 6769), (97, 6826), (98, 6832), (102, 6850), (110, 6898),

Gene: Saronaya_11 Start: 5959, Stop: 6258, Start Num: 64

Candidate Starts for Saronaya_11:

(13, 5698), (18, 5725), (Start: 57 @5950 has 50 MA's), (Start: 64 @5959 has 10 MA's), (86, 6058), (97, 6115), (98, 6121), (110, 6187),

Gene: Savbucketdawg_11 Start: 4956, Stop: 5270, Start Num: 62

Candidate Starts for Savbucketdawg_11:

(Start: 62 @4956 has 31 MA's), (97, 5112), (98, 5118),

Gene: SchottB_10 Start: 6126, Stop: 6434, Start Num: 57

Candidate Starts for SchottB_10:

(10, 5841), (17, 5895), (19, 5907), (24, 5946), (35, 6024), (Start: 48 @6096 has 2 MA's), (Start: 57 @6126 has 50 MA's), (Start: 64 @6135 has 10 MA's), (97, 6291), (98, 6297), (110, 6363),

Gene: Scioto_13 Start: 6625, Stop: 6942, Start Num: 57

Candidate Starts for Scioto_13:

(Start: 57 @6625 has 50 MA's), (74, 6667), (86, 6736), (98, 6799), (104, 6823), (110, 6865), (112, 6871),

Gene: Sedona_12 Start: 7669, Stop: 7977, Start Num: 57

Candidate Starts for Sedona_12:

(Start: 57 @7669 has 50 MA's), (Start: 64 @7678 has 10 MA's), (74, 7708), (86, 7777), (97, 7834), (98, 7840), (102, 7858), (110, 7906),

Gene: Shatter_7 Start: 4953, Stop: 5276, Start Num: 63

Candidate Starts for Shatter_7:

(31, 4833), (Start: 55 @4941 has 1 MA's), (Start: 63 @4953 has 11 MA's), (65, 4959), (67, 4965), (68, 4968), (69, 4971), (76, 4992), (77, 4998), (82, 5025), (86, 5052), (90, 5058), (106, 5148), (119, 5247),

Gene: Shinji_11 Start: 5145, Stop: 5459, Start Num: 62

Candidate Starts for Shinji_11:

(Start: 62 @5145 has 31 MA's), (97, 5301), (98, 5307),

Gene: Shivanishola_11 Start: 6886, Stop: 7185, Start Num: 64

Candidate Starts for Shivanishola_11:

(Start: 57 @6877 has 50 MA's), (Start: 64 @6886 has 10 MA's), (74, 6916), (86, 6985), (97, 7042), (98, 7048), (102, 7066), (110, 7114),

Gene: Sisko_6 Start: 4758, Stop: 5081, Start Num: 63

Candidate Starts for Sisko_6:

(Start: 55 @4746 has 1 MA's), (Start: 63 @4758 has 11 MA's), (69, 4776), (72, 4785), (76, 4797), (77, 4803), (97, 4914), (100, 4932), (106, 4953), (119, 5052),

Gene: Sitar_12 Start: 7043, Stop: 7351, Start Num: 57

Candidate Starts for Sitar_12:

(22, 6851), (Start: 57 @7043 has 50 MA's), (Start: 64 @7052 has 10 MA's), (86, 7151), (97, 7208), (98, 7214), (102, 7232), (110, 7280),

Gene: SmokingBunny_11 Start: 5123, Stop: 5437, Start Num: 62

Candidate Starts for SmokingBunny_11:

(Start: 41 @5060 has 1 MA's), (Start: 62 @5123 has 31 MA's), (97, 5279), (98, 5285),

Gene: StorminNorm_11 Start: 5953, Stop: 6261, Start Num: 57

Candidate Starts for StorminNorm_11:

(13, 5701), (18, 5728), (Start: 57 @5953 has 50 MA's), (Start: 64 @5962 has 10 MA's), (86, 6061), (97, 6118), (98, 6124), (110, 6190),

Gene: Stultus_11 Start: 6867, Stop: 7175, Start Num: 57

Candidate Starts for Stultus_11:

(Start: 57 @6867 has 50 MA's), (Start: 64 @6876 has 10 MA's), (74, 6906), (86, 6975), (97, 7032), (98, 7038), (102, 7056), (110, 7104),

Gene: TP1604_9 Start: 7730, Stop: 8080, Start Num: 61

Candidate Starts for TP1604_9:

(Start: 61 @7730 has 10 MA's), (80, 7790), (94, 7877), (100, 7925), (105, 7940),

Gene: Talia1610_75 Start: 32727, Stop: 33011, Start Num: 62

Candidate Starts for Talia1610_75:

(26, 32568), (27, 32574), (29, 32586), (30, 32589), (32, 32601), (33, 32607), (34, 32610), (40, 32652), (58, 32721), (Start: 62 @32727 has 31 MA's), (69, 32745), (77, 32775), (80, 32787), (81, 32790), (94, 32856), (118, 33006),

Gene: Tangent_9 Start: 5665, Stop: 6003, Start Num: 48

Candidate Starts for Tangent_9:

(Start: 48 @5665 has 2 MA's), (Start: 57 @5695 has 50 MA's), (Start: 64 @5704 has 10 MA's), (86, 5803), (97, 5860), (98, 5866), (102, 5884), (110, 5932),

Gene: Tangerine_11 Start: 5962, Stop: 6270, Start Num: 57

Candidate Starts for Tangerine_11:

(13, 5710), (18, 5737), (Start: 57 @5962 has 50 MA's), (Start: 64 @5971 has 10 MA's), (86, 6070), (97, 6127), (98, 6133), (110, 6199),

Gene: Tardus_13 Start: 5665, Stop: 5982, Start Num: 57

Candidate Starts for Tardus_13:

(Start: 57 @5665 has 50 MA's), (74, 5707), (86, 5776), (98, 5839), (104, 5863), (110, 5905),

Gene: Thing3_12 Start: 6782, Stop: 7090, Start Num: 57

Candidate Starts for Thing3_12:

(Start: 48 @6752 has 2 MA's), (Start: 57 @6782 has 50 MA's), (Start: 64 @6791 has 10 MA's), (86, 6890), (97, 6947), (98, 6953), (102, 6971), (110, 7019),

Gene: Tiamoceli_13 Start: 6287, Stop: 6625, Start Num: 57

Candidate Starts for Tiamoceli_13:

(45, 6251), (Start: 57 @6287 has 50 MA's), (69, 6314), (71, 6320), (77, 6344), (92, 6422), (98, 6488), (110, 6554), (115, 6581),

Gene: TillyBobJoe_11 Start: 4959, Stop: 5273, Start Num: 62

Candidate Starts for TillyBobJoe_11:

(Start: 62 @4959 has 31 MA's), (97, 5115), (98, 5121),

Gene: Togo_11 Start: 5123, Stop: 5437, Start Num: 62

Candidate Starts for Togo_11:

(Start: 41 @5060 has 1 MA's), (Start: 62 @5123 has 31 MA's), (97, 5279), (98, 5285),

Gene: Tonitrus_25 Start: 14059, Stop: 14370, Start Num: 55

Candidate Starts for Tonitrus_25:

(Start: 55 @14059 has 1 MA's), (85, 14158),

Gene: TurkishDelight_10 Start: 6065, Stop: 6391, Start Num: 60

Candidate Starts for TurkishDelight_10:

(53, 6050), (Start: 60 @6065 has 2 MA's), (109, 6305), (113, 6317),

Gene: Twister6_11 Start: 5055, Stop: 5369, Start Num: 62

Candidate Starts for Twister6_11:

(Start: 41 @4992 has 1 MA's), (Start: 62 @5055 has 31 MA's), (97, 5211), (98, 5217),

Gene: Twonlo_10 Start: 4904, Stop: 5242, Start Num: 57

Candidate Starts for Twonlo_10:

(45, 4868), (Start: 57 @4904 has 50 MA's), (69, 4931), (71, 4937), (77, 4961), (92, 5039), (98, 5105), (110, 5171), (115, 5198),

Gene: Tycho_11 Start: 5971, Stop: 6270, Start Num: 64

Candidate Starts for Tycho_11:

(13, 5710), (18, 5737), (Start: 57 @5962 has 50 MA's), (Start: 64 @5971 has 10 MA's), (86, 6070), (97, 6127), (98, 6133), (110, 6199),

Gene: Valary_12 Start: 5508, Stop: 5822, Start Num: 62

Candidate Starts for Valary_12:

(7, 5157), (Start: 41 @5445 has 1 MA's), (Start: 62 @5508 has 31 MA's), (97, 5664), (98, 5670),

Gene: VanDeWege_12 Start: 5436, Stop: 5750, Start Num: 62

Candidate Starts for VanDeWege_12:

(Start: 41 @5373 has 1 MA's), (Start: 62 @5436 has 31 MA's), (97, 5592), (98, 5598),

Gene: Verity_13 Start: 6898, Stop: 7215, Start Num: 57

Candidate Starts for Verity_13:

(Start: 57 @6898 has 50 MA's), (70, 6928), (86, 7009), (98, 7072), (102, 7090), (103, 7093), (104, 7096), (110, 7138),

Gene: ViaConlectus_13 Start: 6625, Stop: 6942, Start Num: 57

Candidate Starts for ViaConlectus_13:

(Start: 57 @6625 has 50 MA's), (74, 6667), (86, 6736), (98, 6799), (104, 6823), (110, 6865), (112, 6871),

Gene: Vivi2_10 Start: 5856, Stop: 6164, Start Num: 57

Candidate Starts for Vivi2_10:

(22, 5664), (Start: 57 @5856 has 50 MA's), (Start: 64 @5865 has 10 MA's), (86, 5964), (97, 6021), (98, 6027), (102, 6045), (110, 6093),

Gene: Wizard_11 Start: 5251, Stop: 5565, Start Num: 62

Candidate Starts for Wizard_11:

(Start: 41 @5188 has 1 MA's), (Start: 62 @5251 has 31 MA's), (97, 5407), (98, 5413),

Gene: Xkcd426_10 Start: 8759, Stop: 9115, Start Num: 61

Candidate Starts for Xkcd426_10:

(20, 8549), (21, 8552), (46, 8729), (Start: 61 @8759 has 10 MA's), (80, 8819), (81, 8822), (88, 8873), (96, 8918), (100, 8954),

Gene: YDN12_10 Start: 7676, Stop: 8026, Start Num: 61

Candidate Starts for YDN12_10:

(Start: 61 @7676 has 10 MA's), (80, 7736), (87, 7781), (89, 7793), (94, 7823), (100, 7871), (105, 7886), (116, 7955),

Gene: YorkOnyx_11 Start: 5911, Stop: 6219, Start Num: 57

Candidate Starts for YorkOnyx_11:

(13, 5659), (Start: 57 @5911 has 50 MA's), (Start: 64 @5920 has 10 MA's), (86, 6019), (97, 6076), (98, 6082), (110, 6148),

Gene: YungMoney_11 Start: 6205, Stop: 6510, Start Num: 62

Candidate Starts for YungMoney_11:

(7, 5854), (Start: 41 @6142 has 1 MA's), (Start: 62 @6205 has 31 MA's), (97, 6361), (98, 6367),

Gene: Zipp_13 Start: 7043, Stop: 7360, Start Num: 57

Candidate Starts for Zipp_13:

(Start: 57 @7043 has 50 MA's), (70, 7073), (86, 7154), (98, 7217), (102, 7235), (103, 7238), (104, 7241), (110, 7283),

Gene: Zitch_14 Start: 6362, Stop: 6679, Start Num: 57

Candidate Starts for Zitch_14:

(Start: 57 @6362 has 50 MA's), (74, 6404), (86, 6473), (98, 6536), (104, 6560), (110, 6602),

Gene: Zooman_66 Start: 27525, Stop: 27800, Start Num: 66

Candidate Starts for Zooman_66:

(52, 27510), (Start: 66 @27525 has 2 MA's), (73, 27546), (97, 27675), (107, 27732), (108, 27735),

Gene: phiAsp2_3 Start: 663, Stop: 1013, Start Num: 44

Candidate Starts for phiAsp2_3:

(44, 663), (53, 693), (Start: 55 @702 has 1 MA's), (69, 732), (75, 747), (77, 756), (81, 771), (86, 810), (98, 888), (110, 945), (118, 990),