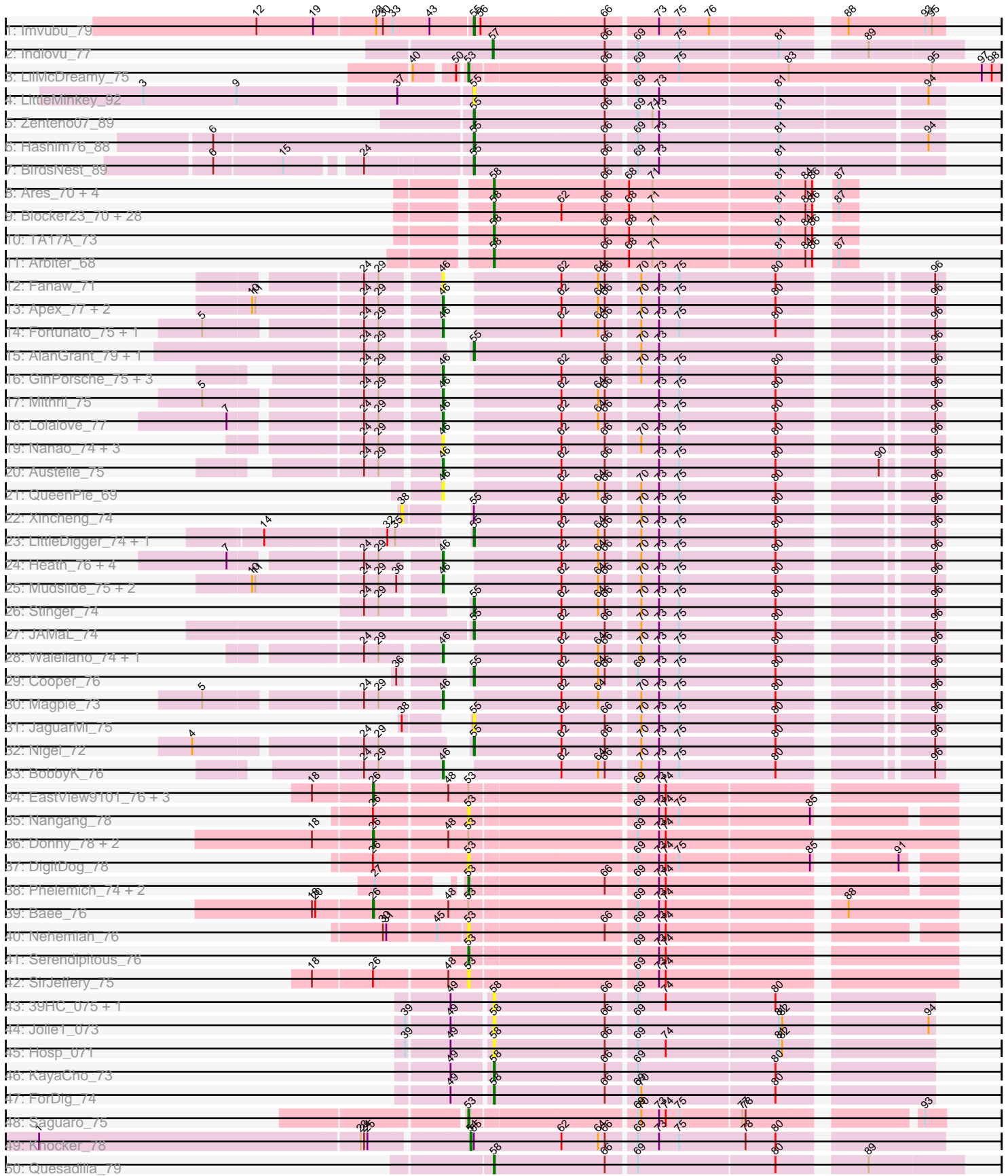
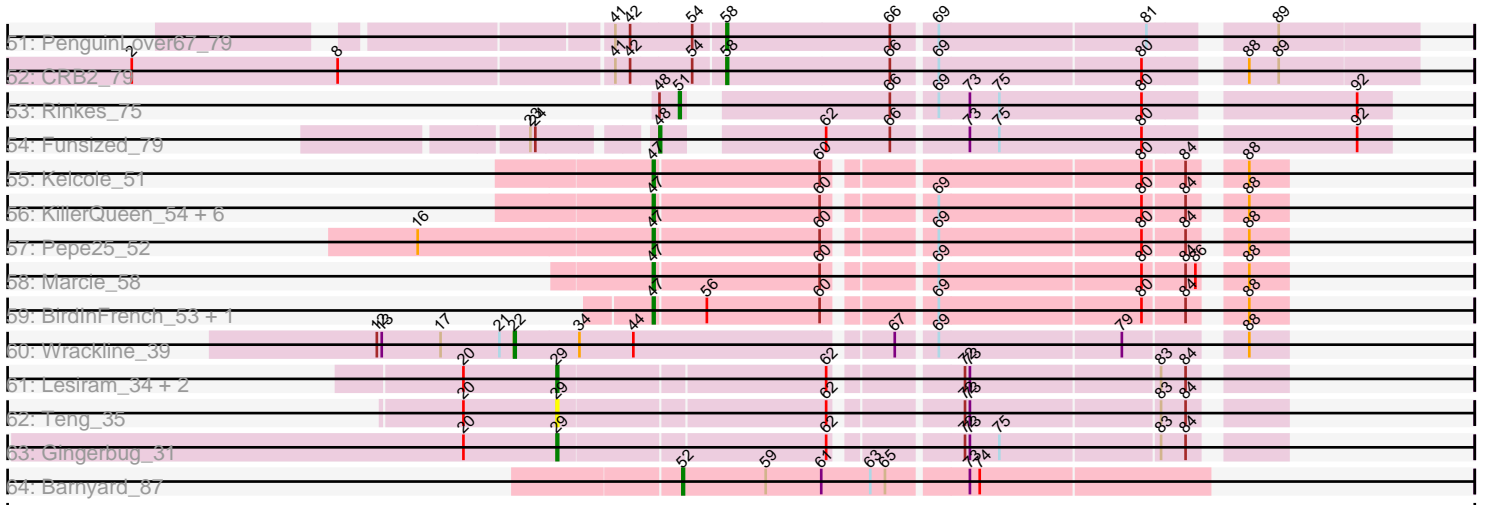


Pham 311352



Pham 311352



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 311352 Report

This analysis was run 06/27/26 on database version 652.

Pham number 311352 has 131 members, 25 are drafts.

Phages represented in each track:

- Track 1 : Imvubu_79
- Track 2 : Indlovu_77
- Track 3 : LilMcDreamy_75
- Track 4 : LittleMinkey_92
- Track 5 : Zenteno07_89
- Track 6 : Hashim76_88
- Track 7 : BirdsNest_89
- Track 8 : Ares_70, Sabella_70, Kolhan_71, Phantasmagoria_69, Faze9_69
- Track 9 : Blocker23_70, PrinceCharming_71, Vic9_00070, Allegro_70, Kheth_70, Tres_70, Lephleur_70, Godines_71, LizLemon_70, FrenchFry_71, Glass_72, Hedgerow_70, Calamitous_71, Brownie5_70, Boyle_70, ItsyBitsy1_69, Eaglehorse_70, Rhinoforte_70, Bananafish_71, Opia_71, Lars_71, Holeinone_70, MasterPo_71, Tinciduntolum_71, Kaleb_70, Coffee_70, LilSmirk_70, Rosebush_69, West99_70
- Track 10 : TA17A_73
- Track 11 : Arbitrator_68
- Track 12 : Fanaw_71
- Track 13 : Apex_77, JoyceMaria_76, Prince_75
- Track 14 : Fortunato_75, ChrisnMich_75
- Track 15 : AlanGrant_79, Vincenzo_78
- Track 16 : GinPorsche_75, Epah_73, Antihero_73, Ahwei_73
- Track 17 : Mithril_75
- Track 18 : Lolalove_77
- Track 19 : Nanao_74, Poster_73, Hally898_73, Lambano_73
- Track 20 : Austelle_75
- Track 21 : QueenPie_69
- Track 22 : Xincheng_74
- Track 23 : LittleDigger_74, Renkei_74
- Track 24 : Heath_76, Frederick_77, Zemanar_75, Hydro_76, RawrgerThat_75
- Track 25 : Mudslide_75, Hangman_77, VioletZ_78
- Track 26 : Stinger_74
- Track 27 : JAMaL_74
- Track 28 : Waleliano_74, BrownCNA_76
- Track 29 : Cooper_76
- Track 30 : Magpie_73
- Track 31 : JaguarMi_75
- Track 32 : Nigel_72

- Track 33 : BobbyK_76
- Track 34 : EastView9101_76, Reccee_78, Acadian_77, Rita130_76
- Track 35 : Nangang_78
- Track 36 : Donny_78, Rich_75, Suigeneris_78
- Track 37 : DigitDog_78
- Track 38 : Phelemich_74, Mysterious_75, Reprobate_76
- Track 39 : Bae_76
- Track 40 : Nehemiah_76
- Track 41 : Serendipitous_76
- Track 42 : SirJeffery_75
- Track 43 : 39HC_075, 40BC_075
- Track 44 : Jolie1_073
- Track 45 : Hosp_071
- Track 46 : KayaCho_73
- Track 47 : ForDig_74
- Track 48 : Saguaro_75
- Track 49 : Knocker_78
- Track 50 : Quesadilla_79
- Track 51 : PenguinLover67_79
- Track 52 : CRB2_79
- Track 53 : Rinkes_75
- Track 54 : Funsized_79
- Track 55 : Kelcole_51
- Track 56 : KillerQueen_54, OneinaGillian_53, Romm_55, Tempo_53, RobinRose_55, CandC_52, Fregley_54
- Track 57 : Pepe25_52
- Track 58 : Marcie_58
- Track 59 : BirdInFrench_53, Wilca_53
- Track 60 : Wrackline_39
- Track 61 : Lesiram_34, Sweetums_35, DelaGarza_33
- Track 62 : Teng_35
- Track 63 : Gingerbug_31
- Track 64 : Barnyard_87

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

The start number called the most often in the published annotations is 58, it was called in 40 of the 106 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- 39HC_075, 40BC_075, Allegro_70, Arbiter_68, Ares_70, Bananafish_71, Blocker23_70, Boyle_70, Brownie5_70, CRB2_79, Calamitous_71, Coffee_70, Eaglehorse_70, Faze9_69, ForDig_74, FrenchFry_71, Glass_72, Godines_71, Hedgerow_70, Holeinone_70, Hosp_071, ItsyBitsy1_69, Jolie1_073, Kaleb_70, KayaCho_73, Kheth_70, Kolhan_71, Lars_71, Lephleur_70, LilSmirk_70, LizLemon_70, MasterPo_71, Opia_71, PenguinLover67_79, Phantasmagoria_69, PrinceCharming_71, Quesadilla_79, Rhinoforte_70, Rosebush_69, Sabella_70, TA17A_73, Tinciduntolum_71, Tres_70, Vic9_00070, West99_70,

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

•

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

• Acadian_77, Ahwei_73, AlanGrant_79, Antihero_73, Apex_77, Austelle_75, Bae_76, Barnyard_87, BirdInFrench_53, BirdsNest_89, BobbyK_76, BrownCNA_76, CandC_52, ChrisnMich_75, Cooper_76, DelaGarza_33, DigitDog_78, Donny_78, EastView9101_76, Epah_73, Fanaw_71, Fortunato_75, Frederick_77, Fregley_54, Funsized_79, GinPorsche_75, Gingerbug_31, Hally898_73, Hangman_77, Hashim76_88, Heath_76, Hydro_76, Imvubu_79, Indlovu_77, JAMaL_74, JaguarMi_75, JoyceMaria_76, Kelcole_51, KillerQueen_54, Knocker_78, Lambano_73, Lesiram_34, LilMcDreamy_75, LittleDigger_74, LittleMinkey_92, Lolalove_77, Magpie_73, Marcie_58, Mithril_75, Mudslide_75, Mysterious_75, Nanao_74, Nangang_78, Nehemiah_76, Nigel_72, OneinaGillian_53, Pepe25_52, Phelemich_74, Poster_73, Prince_75, QueenPie_69, RawrgerThat_75, Reccee_78, Renkei_74, Reprobate_76, Rich_75, Rinkes_75, Rita130_76, RobinRose_55, Romm_55, Saguaro_75, Serendipitous_76, SirJeffery_75, Stinger_74, Suigeneris_78, Sweetums_35, Tempo_53, Teng_35, Vincenzo_78, VioletZ_78, Waleliano_74, Wilca_53, Wrackline_39, Xincheng_74, Zemanar_75, Zenteno07_89,

Summary by start number:

Start 22:

- Found in 1 of 131 (0.8%) of genes in pham
- Manual Annotations of this start: 1 of 106
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Wrackline_39 (GF),

Start 26:

- Found in 11 of 131 (8.4%) of genes in pham
- Manual Annotations of this start: 7 of 106
- Called 72.7% of time when present
- Phage (with cluster) where this start called: Acadian_77 (B5), Bae_76 (B5), Donny_78 (B5), EastView9101_76 (B5), Reccee_78 (B5), Rich_75 (B5), Rita130_76 (B5), Suigeneris_78 (B5),

Start 29:

- Found in 38 of 131 (29.0%) of genes in pham
- Manual Annotations of this start: 4 of 106
- Called 13.2% of time when present
- Phage (with cluster) where this start called: DelaGarza_33 (GF), Gingerbug_31 (GF), Lesiram_34 (GF), Sweetums_35 (GF), Teng_35 (GF),

Start 38:

- Found in 2 of 131 (1.5%) of genes in pham
- No Manual Annotations of this start.
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Xincheng_74 (B4),

Start 46:

- Found in 30 of 131 (22.9%) of genes in pham
- Manual Annotations of this start: 20 of 106
- Called 100.0% of time when present

- Phage (with cluster) where this start called: Ahwei_73 (B4), Antihero_73 (B4), Apex_77 (B4), Austelle_75 (B4), BobbyK_76 (B4), BrownCNA_76 (B4), ChrisnMich_75 (B4), Epah_73 (B4), Fanaw_71 (B4), Fortunato_75 (B4), Frederick_77 (B4), GinPorsche_75 (B4), Hally898_73 (B4), Hangman_77 (B4), Heath_76 (B4), Hydro_76 (B4), JoyceMaria_76 (B4), Lambano_73 (B4), Lolalove_77 (B4), Magpie_73 (B4), Mithril_75 (B4), Mudslide_75 (B4), Nanao_74 (B4), Poster_73 (B4), Prince_75 (B4), QueenPie_69 (B4), RawrgerThat_75 (B4), VioletZ_78 (B4), Waleliano_74 (B4), Zemanar_75 (B4),

Start 47:

- Found in 12 of 131 (9.2%) of genes in pham
- Manual Annotations of this start: 11 of 106
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BirdInFrench_53 (EG), CandC_52 (EG), Fregley_54 (EG), Kelcole_51 (EG), KillerQueen_54 (EG), Marcie_58 (EG), OneinaGillian_53 (EG), Pepe25_52 (EG), RobinRose_55 (EG), Romm_55 (EG), Tempo_53 (EG), Wilca_53 (EG),

Start 48:

- Found in 11 of 131 (8.4%) of genes in pham
- Manual Annotations of this start: 1 of 106
- Called 9.1% of time when present
- Phage (with cluster) where this start called: Funsized_79 (B9),

Start 51:

- Found in 1 of 131 (0.8%) of genes in pham
- Manual Annotations of this start: 1 of 106
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Rinkes_75 (B9),

Start 52:

- Found in 1 of 131 (0.8%) of genes in pham
- Manual Annotations of this start: 1 of 106
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Barnyard_87 (H2),

Start 53:

- Found in 18 of 131 (13.7%) of genes in pham
- Manual Annotations of this start: 6 of 106
- Called 55.6% of time when present
- Phage (with cluster) where this start called: DigitDog_78 (B5), LilMcDreamy_75 (B12), Mysterious_75 (B5), Nangang_78 (B5), Nehemiah_76 (B5), Phelemich_74 (B5), Reprobate_76 (B5), Saguaro_75 (B7), Serendipitous_76 (B5), SirJeffery_75 (B5),

Start 54:

- Found in 3 of 131 (2.3%) of genes in pham
- Manual Annotations of this start: 1 of 106
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Knocker_78 (B9),

Start 55:

- Found in 16 of 131 (12.2%) of genes in pham

- Manual Annotations of this start: 12 of 106
- Called 87.5% of time when present
- Phage (with cluster) where this start called: AlanGrant_79 (B4), BirdsNest_89 (B13), Cooper_76 (B4), Hashim76_88 (B13), Imvubu_79 (B10), JAMaL_74 (B4), JaguarMi_75 (B4), LittleDigger_74 (B4), LittleMinkey_92 (B13), Nigel_72 (B4), Renkei_74 (B4), Stinger_74 (B4), Vincenzo_78 (B4), Zenteno07_89 (B13),

Start 57:

- Found in 1 of 131 (0.8%) of genes in pham
- Manual Annotations of this start: 1 of 106
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Indlovu_77 (B11),

Start 58:

- Found in 45 of 131 (34.4%) of genes in pham
- Manual Annotations of this start: 40 of 106
- Called 100.0% of time when present
- Phage (with cluster) where this start called: 39HC_075 (B6), 40BC_075 (B6), Allegro_70 (B2), Arbitrator_68 (B2), Ares_70 (B2), Bananafish_71 (B2), Blocker23_70 (B2), Boyle_70 (B2), Brownie5_70 (B2), CRB2_79 (B9), Calamitous_71 (B2), Coffee_70 (B2), Eaglehorse_70 (B2), Faze9_69 (B2), ForDig_74 (B6), FrenchFry_71 (B2), Glass_72 (B2), Godines_71 (B2), Hedgerow_70 (B2), Holeinone_70 (B2), Hosp_071 (B6), ItsyBitsy1_69 (B2), Jolie1_073 (B6), Kaleb_70 (B2), KayaCho_73 (B6), Kheth_70 (B2), Kolhan_71 (B2), Lars_71 (B2), Lephleur_70 (B2), LilSmirk_70 (B2), LizLemon_70 (B2), MasterPo_71 (B2), Opia_71 (B2), PenguinLover67_79 (B9), Phantasmagoria_69 (B2), PrinceCharming_71 (B2), Quesadilla_79 (B9), Rhinoforte_70 (B2), Rosebush_69 (B2), Sabella_70 (B2), TA17A_73 (B2), Tinciduntolum_71 (B2), Tres_70 (B2), Vic9_00070 (B2), West99_70 (B2),

Summary by clusters:

There are 13 clusters represented in this pham: B10, GF, H2, EG, B4, B5, B6, B7, B12, B13, B2, B11, B9,

Info for manual annotations of cluster B10:

- Start number 55 was manually annotated 1 time for cluster B10.

Info for manual annotations of cluster B11:

- Start number 57 was manually annotated 1 time for cluster B11.

Info for manual annotations of cluster B12:

- Start number 53 was manually annotated 1 time for cluster B12.

Info for manual annotations of cluster B13:

- Start number 55 was manually annotated 3 times for cluster B13.

Info for manual annotations of cluster B2:

- Start number 58 was manually annotated 35 times for cluster B2.

Info for manual annotations of cluster B4:

- Start number 46 was manually annotated 20 times for cluster B4.
- Start number 55 was manually annotated 8 times for cluster B4.

Info for manual annotations of cluster B5:

- Start number 26 was manually annotated 7 times for cluster B5.
- Start number 53 was manually annotated 4 times for cluster B5.

Info for manual annotations of cluster B6:

- Start number 58 was manually annotated 2 times for cluster B6.

Info for manual annotations of cluster B7:

- Start number 53 was manually annotated 1 time for cluster B7.

Info for manual annotations of cluster B9:

- Start number 48 was manually annotated 1 time for cluster B9.
- Start number 51 was manually annotated 1 time for cluster B9.
- Start number 54 was manually annotated 1 time for cluster B9.
- Start number 58 was manually annotated 3 times for cluster B9.

Info for manual annotations of cluster EG:

- Start number 47 was manually annotated 11 times for cluster EG.

Info for manual annotations of cluster GF:

- Start number 22 was manually annotated 1 time for cluster GF.
- Start number 29 was manually annotated 4 times for cluster GF.

Info for manual annotations of cluster H2:

- Start number 52 was manually annotated 1 time for cluster H2.

Gene Information:

Gene: 39HC_075 Start: 62227, Stop: 61859, Start Num: 58

Candidate Starts for 39HC_075:

(49, 62260), (Start: 58 @62227 has 40 MA's), (66, 62128), (69, 62104), (74, 62080), (80, 61984),

Gene: 40BC_075 Start: 62227, Stop: 61859, Start Num: 58

Candidate Starts for 40BC_075:

(49, 62260), (Start: 58 @62227 has 40 MA's), (66, 62128), (69, 62104), (74, 62080), (80, 61984),

Gene: Acadian_77 Start: 62254, Stop: 61766, Start Num: 26

Candidate Starts for Acadian_77:

(18, 62305), (Start: 26 @62254 has 7 MA's), (Start: 48 @62191 has 1 MA's), (Start: 53 @62173 has 6 MA's), (69, 62032), (73, 62014), (74, 62008),

Gene: Ahwei_73 Start: 62187, Stop: 61801, Start Num: 46

Candidate Starts for Ahwei_73:

(24, 62247), (Start: 29 @62235 has 4 MA's), (Start: 46 @62187 has 20 MA's), (62, 62109), (66, 62070), (70, 62043), (73, 62028), (75, 62010), (80, 61923), (96, 61809),

Gene: AlanGrant_79 Start: 64544, Stop: 64158, Start Num: 55

Candidate Starts for AlanGrant_79:

(24, 64610), (Start: 29 @64598 has 4 MA's), (Start: 55 @64544 has 12 MA's), (66, 64427), (70, 64400), (73, 64385), (96, 64166),

Gene: Allegro_70 Start: 59019, Stop: 58717, Start Num: 58

Candidate Starts for Allegro_70:

(Start: 58 @59019 has 40 MA's), (62, 58959), (66, 58920), (68, 58899), (71, 58878), (81, 58767), (84, 58746), (86, 58740), (87, 58734),

Gene: Antihero_73 Start: 62122, Stop: 61736, Start Num: 46

Candidate Starts for Antihero_73:

(24, 62182), (Start: 29 @62170 has 4 MA's), (Start: 46 @62122 has 20 MA's), (62, 62044), (66, 62005), (70, 61978), (73, 61963), (75, 61945), (80, 61858), (96, 61744),

Gene: Apex_77 Start: 63483, Stop: 63097, Start Num: 46

Candidate Starts for Apex_77:

(10, 63639), (11, 63636), (24, 63543), (Start: 29 @63531 has 4 MA's), (Start: 46 @63483 has 20 MA's), (62, 63405), (64, 63372), (66, 63366), (70, 63339), (73, 63324), (75, 63306), (80, 63219), (96, 63105),

Gene: Arbiter_68 Start: 59054, Stop: 58752, Start Num: 58

Candidate Starts for Arbiter_68:

(Start: 58 @59054 has 40 MA's), (66, 58955), (68, 58934), (71, 58913), (81, 58802), (84, 58781), (86, 58775), (87, 58769),

Gene: Ares_70 Start: 59025, Stop: 58723, Start Num: 58

Candidate Starts for Ares_70:

(Start: 58 @59025 has 40 MA's), (66, 58926), (68, 58905), (71, 58884), (81, 58773), (84, 58752), (86, 58746), (87, 58740),

Gene: Austelle_75 Start: 63800, Stop: 63414, Start Num: 46

Candidate Starts for Austelle_75:

(24, 63860), (Start: 29 @63848 has 4 MA's), (Start: 46 @63800 has 20 MA's), (62, 63722), (66, 63683), (73, 63641), (75, 63623), (80, 63536), (90, 63461), (96, 63422),

Gene: Bae_76 Start: 62953, Stop: 62465, Start Num: 26

Candidate Starts for Bae_76:

(18, 63004), (20, 63001), (Start: 26 @62953 has 7 MA's), (Start: 48 @62890 has 1 MA's), (Start: 53 @62872 has 6 MA's), (69, 62731), (73, 62713), (74, 62707), (88, 62563),

Gene: Bananafish_71 Start: 58955, Stop: 58653, Start Num: 58

Candidate Starts for Bananafish_71:

(Start: 58 @58955 has 40 MA's), (62, 58895), (66, 58856), (68, 58835), (71, 58814), (81, 58703), (84, 58682), (86, 58676), (87, 58670),

Gene: Barnyard_87 Start: 60478, Stop: 60789, Start Num: 52

Candidate Starts for Barnyard_87:

(Start: 52 @60478 has 1 MA's), (59, 60529), (61, 60562), (63, 60592), (65, 60601), (73, 60646), (74, 60652),

Gene: BirdInFrench_53 Start: 37040, Stop: 36696, Start Num: 47

Candidate Starts for BirdInFrench_53:

(Start: 47 @37040 has 11 MA's), (56, 37010), (60, 36941), (69, 36887), (80, 36767), (84, 36743), (88, 36719),

Gene: BirdsNest_89 Start: 65386, Stop: 64982, Start Num: 55

Candidate Starts for BirdsNest_89:

(6, 65590), (15, 65530), (24, 65473), (Start: 55 @65386 has 12 MA's), (66, 65269), (69, 65245), (73, 65227), (81, 65122),

Gene: Blocker23_70 Start: 59020, Stop: 58718, Start Num: 58

Candidate Starts for Blocker23_70:

(Start: 58 @59020 has 40 MA's), (62, 58960), (66, 58921), (68, 58900), (71, 58879), (81, 58768), (84, 58747), (86, 58741), (87, 58735),

Gene: BobbyK_76 Start: 62954, Stop: 62568, Start Num: 46

Candidate Starts for BobbyK_76:

(24, 63014), (Start: 29 @63002 has 4 MA's), (Start: 46 @62954 has 20 MA's), (62, 62876), (64, 62843), (66, 62837), (70, 62810), (73, 62795), (75, 62777), (80, 62690), (96, 62576),

Gene: Boyle_70 Start: 59064, Stop: 58762, Start Num: 58

Candidate Starts for Boyle_70:

(Start: 58 @59064 has 40 MA's), (62, 59004), (66, 58965), (68, 58944), (71, 58923), (81, 58812), (84, 58791), (86, 58785), (87, 58779),

Gene: BrownCNA_76 Start: 63158, Stop: 62772, Start Num: 46

Candidate Starts for BrownCNA_76:

(24, 63218), (Start: 29 @63206 has 4 MA's), (Start: 46 @63158 has 20 MA's), (62, 63080), (64, 63047), (66, 63041), (70, 63014), (73, 62999), (75, 62981), (80, 62894), (96, 62780),

Gene: Brownie5_70 Start: 59065, Stop: 58763, Start Num: 58

Candidate Starts for Brownie5_70:

(Start: 58 @59065 has 40 MA's), (62, 59005), (66, 58966), (68, 58945), (71, 58924), (81, 58813), (84, 58792), (86, 58786), (87, 58780),

Gene: CRB2_79 Start: 65196, Stop: 64804, Start Num: 58

Candidate Starts for CRB2_79:

(2, 65547), (8, 65421), (41, 65259), (42, 65250), (Start: 54 @65214 has 1 MA's), (Start: 58 @65196 has 40 MA's), (66, 65097), (69, 65073), (80, 64953), (88, 64905), (89, 64887),

Gene: Calamitous_71 Start: 58954, Stop: 58652, Start Num: 58

Candidate Starts for Calamitous_71:

(Start: 58 @58954 has 40 MA's), (62, 58894), (66, 58855), (68, 58834), (71, 58813), (81, 58702), (84, 58681), (86, 58675), (87, 58669),

Gene: CandC_52 Start: 36674, Stop: 36330, Start Num: 47

Candidate Starts for CandC_52:

(Start: 47 @36674 has 11 MA's), (60, 36575), (69, 36521), (80, 36401), (84, 36377), (88, 36353),

Gene: ChrisnMich_75 Start: 62154, Stop: 61768, Start Num: 46

Candidate Starts for ChrisnMich_75:

(5, 62343), (24, 62214), (Start: 29 @62202 has 4 MA's), (Start: 46 @62154 has 20 MA's), (62, 62076), (64, 62043), (66, 62037), (70, 62010), (73, 61995), (75, 61977), (80, 61890), (96, 61776),

Gene: Coffee_70 Start: 59058, Stop: 58756, Start Num: 58

Candidate Starts for Coffee_70:

(Start: 58 @59058 has 40 MA's), (62, 58998), (66, 58959), (68, 58938), (71, 58917), (81, 58806), (84, 58785), (86, 58779), (87, 58773),

Gene: Cooper_76 Start: 62632, Stop: 62246, Start Num: 55

Candidate Starts for Cooper_76:

(36, 62671), (Start: 55 @62632 has 12 MA's), (62, 62554), (64, 62521), (66, 62515), (69, 62491), (73, 62473), (75, 62455), (80, 62368), (96, 62254),

Gene: DelaGarza_33 Start: 22446, Stop: 22048, Start Num: 29

Candidate Starts for DelaGarza_33:

(20, 22503), (Start: 29 @22446 has 4 MA's), (62, 22290), (72, 22224), (73, 22221), (83, 22110), (84, 22095),

Gene: DigitDog_78 Start: 62457, Stop: 62062, Start Num: 53

Candidate Starts for DigitDog_78:

(Start: 26 @62538 has 7 MA's), (Start: 53 @62457 has 6 MA's), (69, 62316), (73, 62298), (74, 62292), (75, 62280), (85, 62166), (91, 62103),

Gene: Donny_78 Start: 62294, Stop: 61806, Start Num: 26

Candidate Starts for Donny_78:

(18, 62345), (Start: 26 @62294 has 7 MA's), (Start: 48 @62231 has 1 MA's), (Start: 53 @62213 has 6 MA's), (69, 62072), (73, 62054), (74, 62048),

Gene: Eaglehorse_70 Start: 58944, Stop: 58642, Start Num: 58

Candidate Starts for Eaglehorse_70:

(Start: 58 @58944 has 40 MA's), (62, 58884), (66, 58845), (68, 58824), (71, 58803), (81, 58692), (84, 58671), (86, 58665), (87, 58659),

Gene: EastView9101_76 Start: 61998, Stop: 61510, Start Num: 26

Candidate Starts for EastView9101_76:

(18, 62049), (Start: 26 @61998 has 7 MA's), (Start: 48 @61935 has 1 MA's), (Start: 53 @61917 has 6 MA's), (69, 61776), (73, 61758), (74, 61752),

Gene: Epah_73 Start: 62122, Stop: 61736, Start Num: 46

Candidate Starts for Epah_73:

(24, 62182), (Start: 29 @62170 has 4 MA's), (Start: 46 @62122 has 20 MA's), (62, 62044), (66, 62005), (70, 61978), (73, 61963), (75, 61945), (80, 61858), (96, 61744),

Gene: Fanaw_71 Start: 62994, Stop: 62608, Start Num: 46

Candidate Starts for Fanaw_71:

(24, 63054), (Start: 29 @63042 has 4 MA's), (Start: 46 @62994 has 20 MA's), (62, 62916), (64, 62883), (66, 62877), (70, 62850), (73, 62835), (75, 62817), (80, 62730), (96, 62616),

Gene: Faze9_69 Start: 59082, Stop: 58780, Start Num: 58

Candidate Starts for Faze9_69:

(Start: 58 @59082 has 40 MA's), (66, 58983), (68, 58962), (71, 58941), (81, 58830), (84, 58809), (86, 58803), (87, 58797),

Gene: ForDig_74 Start: 61622, Stop: 61254, Start Num: 58

Candidate Starts for ForDig_74:

(49, 61655), (Start: 58 @61622 has 40 MA's), (66, 61523), (69, 61499), (70, 61496), (80, 61379),

Gene: Fortunato_75 Start: 62924, Stop: 62538, Start Num: 46

Candidate Starts for Fortunato_75:

(5, 63113), (24, 62984), (Start: 29 @62972 has 4 MA's), (Start: 46 @62924 has 20 MA's), (62, 62846), (64, 62813), (66, 62807), (70, 62780), (73, 62765), (75, 62747), (80, 62660), (96, 62546),

Gene: Frederick_77 Start: 63228, Stop: 62842, Start Num: 46

Candidate Starts for Frederick_77:

(7, 63393), (24, 63288), (Start: 29 @63276 has 4 MA's), (Start: 46 @63228 has 20 MA's), (62, 63150), (64, 63117), (66, 63111), (70, 63084), (73, 63069), (75, 63051), (80, 62964), (96, 62850),

Gene: Fregley_54 Start: 37235, Stop: 36891, Start Num: 47

Candidate Starts for Fregley_54:

(Start: 47 @37235 has 11 MA's), (60, 37136), (69, 37082), (80, 36962), (84, 36938), (88, 36914),

Gene: FrenchFry_71 Start: 59069, Stop: 58767, Start Num: 58

Candidate Starts for FrenchFry_71:

(Start: 58 @59069 has 40 MA's), (62, 59009), (66, 58970), (68, 58949), (71, 58928), (81, 58817), (84, 58796), (86, 58790), (87, 58784),

Gene: Funsized_79 Start: 65641, Stop: 65243, Start Num: 48

Candidate Starts for Funsized_79:

(23, 65701), (24, 65698), (Start: 48 @65641 has 1 MA's), (62, 65563), (66, 65524), (73, 65482), (75, 65464), (80, 65377), (92, 65263),

Gene: GinPorsche_75 Start: 62119, Stop: 61733, Start Num: 46

Candidate Starts for GinPorsche_75:

(24, 62179), (Start: 29 @62167 has 4 MA's), (Start: 46 @62119 has 20 MA's), (62, 62041), (66, 62002), (70, 61975), (73, 61960), (75, 61942), (80, 61855), (96, 61741),

Gene: Gingerbug_31 Start: 22564, Stop: 22166, Start Num: 29

Candidate Starts for Gingerbug_31:

(20, 22621), (Start: 29 @22564 has 4 MA's), (62, 22408), (72, 22342), (73, 22339), (75, 22321), (83, 22228), (84, 22213),

Gene: Glass_72 Start: 59070, Stop: 58768, Start Num: 58

Candidate Starts for Glass_72:

(Start: 58 @59070 has 40 MA's), (62, 59010), (66, 58971), (68, 58950), (71, 58929), (81, 58818), (84, 58797), (86, 58791), (87, 58785),

Gene: Godines_71 Start: 59323, Stop: 59021, Start Num: 58

Candidate Starts for Godines_71:

(Start: 58 @59323 has 40 MA's), (62, 59263), (66, 59224), (68, 59203), (71, 59182), (81, 59071), (84, 59050), (86, 59044), (87, 59038),

Gene: Hally898_73 Start: 62200, Stop: 61814, Start Num: 46

Candidate Starts for Hally898_73:

(24, 62260), (Start: 29 @62248 has 4 MA's), (Start: 46 @62200 has 20 MA's), (62, 62122), (66, 62083), (70, 62056), (73, 62041), (75, 62023), (80, 61936), (96, 61822),

Gene: Hangman_77 Start: 63694, Stop: 63308, Start Num: 46

Candidate Starts for Hangman_77:

(10, 63850), (11, 63847), (24, 63754), (Start: 29 @63742 has 4 MA's), (36, 63727), (Start: 46 @63694 has 20 MA's), (62, 63616), (64, 63583), (66, 63577), (70, 63550), (73, 63535), (75, 63517), (80, 63430), (96, 63316),

Gene: Hashim76_88 Start: 65419, Stop: 65015, Start Num: 55

Candidate Starts for Hashim76_88:

(6, 65641), (Start: 55 @65419 has 12 MA's), (66, 65302), (69, 65278), (73, 65260), (81, 65155), (94, 65029),

Gene: Heath_76 Start: 63439, Stop: 63053, Start Num: 46

Candidate Starts for Heath_76:

(7, 63604), (24, 63499), (Start: 29 @63487 has 4 MA's), (Start: 46 @63439 has 20 MA's), (62, 63361), (64, 63328), (66, 63322), (70, 63295), (73, 63280), (75, 63262), (80, 63175), (96, 63061),

Gene: Hedgerow_70 Start: 59020, Stop: 58718, Start Num: 58

Candidate Starts for Hedgerow_70:

(Start: 58 @59020 has 40 MA's), (62, 58960), (66, 58921), (68, 58900), (71, 58879), (81, 58768), (84, 58747), (86, 58741), (87, 58735),

Gene: Holeinone_70 Start: 58925, Stop: 58623, Start Num: 58

Candidate Starts for Holeinone_70:

(Start: 58 @58925 has 40 MA's), (62, 58865), (66, 58826), (68, 58805), (71, 58784), (81, 58673), (84, 58652), (86, 58646), (87, 58640),

Gene: Hosp_071 Start: 59697, Stop: 59329, Start Num: 58

Candidate Starts for Hosp_071:

(39, 59766), (49, 59730), (Start: 58 @59697 has 40 MA's), (66, 59598), (69, 59574), (74, 59550), (81, 59451), (82, 59448),

Gene: Hydro_76 Start: 63357, Stop: 62971, Start Num: 46

Candidate Starts for Hydro_76:

(7, 63522), (24, 63417), (Start: 29 @63405 has 4 MA's), (Start: 46 @63357 has 20 MA's), (62, 63279), (64, 63246), (66, 63240), (70, 63213), (73, 63198), (75, 63180), (80, 63093), (96, 62979),

Gene: Imvubu_79 Start: 62691, Stop: 62296, Start Num: 55

Candidate Starts for Imvubu_79:

(12, 62880), (19, 62829), (28, 62775), (30, 62769), (33, 62760), (43, 62727), (Start: 55 @62691 has 12 MA's), (56, 62685), (66, 62574), (73, 62532), (75, 62514), (76, 62487), (88, 62382), (93, 62313), (95, 62307),

Gene: Indlovu_77 Start: 63524, Stop: 63132, Start Num: 57

Candidate Starts for Indlovu_77:

(Start: 57 @63524 has 1 MA's), (66, 63425), (69, 63401), (75, 63365), (81, 63278), (89, 63215),

Gene: ItsyBitsy1_69 Start: 59161, Stop: 58859, Start Num: 58

Candidate Starts for ItsyBitsy1_69:

(Start: 58 @59161 has 40 MA's), (62, 59101), (66, 59062), (68, 59041), (71, 59020), (81, 58909), (84, 58888), (86, 58882), (87, 58876),

Gene: JAMaL_74 Start: 62677, Stop: 62291, Start Num: 55

Candidate Starts for JAMaL_74:

(Start: 55 @62677 has 12 MA's), (62, 62599), (66, 62560), (70, 62533), (73, 62518), (75, 62500), (80, 62413), (96, 62299),

Gene: JaguarMi_75 Start: 64365, Stop: 63979, Start Num: 55

Candidate Starts for JaguarMi_75:

(38, 64398), (Start: 55 @64365 has 12 MA's), (62, 64287), (66, 64248), (70, 64221), (73, 64206), (75, 64188), (80, 64101), (96, 63987),

Gene: Jolie1_073 Start: 61731, Stop: 61363, Start Num: 58

Candidate Starts for Jolie1_073:

(39, 61800), (49, 61764), (Start: 58 @61731 has 40 MA's), (66, 61632), (69, 61608), (81, 61485), (82, 61482), (94, 61368),

Gene: JoyceMaria_76 Start: 63520, Stop: 63134, Start Num: 46

Candidate Starts for JoyceMaria_76:

(10, 63676), (11, 63673), (24, 63580), (Start: 29 @63568 has 4 MA's), (Start: 46 @63520 has 20 MA's), (62, 63442), (64, 63409), (66, 63403), (70, 63376), (73, 63361), (75, 63343), (80, 63256), (96, 63142),

Gene: Kaleb_70 Start: 59076, Stop: 58774, Start Num: 58

Candidate Starts for Kaleb_70:

(Start: 58 @59076 has 40 MA's), (62, 59016), (66, 58977), (68, 58956), (71, 58935), (81, 58824), (84, 58803), (86, 58797), (87, 58791),

Gene: KayaCho_73 Start: 61898, Stop: 61530, Start Num: 58

Candidate Starts for KayaCho_73:

(49, 61931), (Start: 58 @61898 has 40 MA's), (66, 61799), (69, 61775), (80, 61655),

Gene: Kelcole_51 Start: 36869, Stop: 36525, Start Num: 47

Candidate Starts for Kelcole_51:

(Start: 47 @36869 has 11 MA's), (60, 36770), (80, 36596), (84, 36572), (88, 36548),

Gene: Kheth_70 Start: 58987, Stop: 58685, Start Num: 58

Candidate Starts for Kheth_70:

(Start: 58 @58987 has 40 MA's), (62, 58927), (66, 58888), (68, 58867), (71, 58846), (81, 58735), (84, 58714), (86, 58708), (87, 58702),

Gene: KillerQueen_54 Start: 37119, Stop: 36775, Start Num: 47

Candidate Starts for KillerQueen_54:

(Start: 47 @37119 has 11 MA's), (60, 37020), (69, 36966), (80, 36846), (84, 36822), (88, 36798),

Gene: Knocker_78 Start: 64121, Stop: 63720, Start Num: 54

Candidate Starts for Knocker_78:

(1, 64493), (23, 64208), (24, 64205), (25, 64202), (Start: 54 @64121 has 1 MA's), (Start: 55 @64118 has 12 MA's), (62, 64040), (64, 64007), (66, 64001), (69, 63977), (73, 63959), (75, 63941), (78, 63881), (80, 63854),

Gene: Kolhan_71 Start: 58964, Stop: 58662, Start Num: 58

Candidate Starts for Kolhan_71:

(Start: 58 @58964 has 40 MA's), (66, 58865), (68, 58844), (71, 58823), (81, 58712), (84, 58691), (86, 58685), (87, 58679),

Gene: Lambano_73 Start: 62200, Stop: 61814, Start Num: 46

Candidate Starts for Lambano_73:

(24, 62260), (Start: 29 @62248 has 4 MA's), (Start: 46 @62200 has 20 MA's), (62, 62122), (66, 62083), (70, 62056), (73, 62041), (75, 62023), (80, 61936), (96, 61822),

Gene: Lars_71 Start: 59048, Stop: 58746, Start Num: 58

Candidate Starts for Lars_71:

(Start: 58 @59048 has 40 MA's), (62, 58988), (66, 58949), (68, 58928), (71, 58907), (81, 58796), (84, 58775), (86, 58769), (87, 58763),

Gene: Lephleur_70 Start: 58910, Stop: 58608, Start Num: 58

Candidate Starts for Lephleur_70:

(Start: 58 @58910 has 40 MA's), (62, 58850), (66, 58811), (68, 58790), (71, 58769), (81, 58658), (84, 58637), (86, 58631), (87, 58625),

Gene: Lesiram_34 Start: 22418, Stop: 22020, Start Num: 29

Candidate Starts for Lesiram_34:

(20, 22475), (Start: 29 @22418 has 4 MA's), (62, 22262), (72, 22196), (73, 22193), (83, 22082), (84, 22067),

Gene: LilMcDreamy_75 Start: 62248, Stop: 61784, Start Num: 53

Candidate Starts for LilMcDreamy_75:

(40, 62284), (50, 62254), (Start: 53 @62248 has 6 MA's), (66, 62131), (69, 62107), (75, 62071), (83, 61975), (95, 61846), (97, 61801), (98, 61792),

Gene: LilSmirk_70 Start: 58947, Stop: 58645, Start Num: 58

Candidate Starts for LilSmirk_70:

(Start: 58 @58947 has 40 MA's), (62, 58887), (66, 58848), (68, 58827), (71, 58806), (81, 58695), (84, 58674), (86, 58668), (87, 58662),

Gene: LittleDigger_74 Start: 62053, Stop: 61667, Start Num: 55

Candidate Starts for LittleDigger_74:

(14, 62200), (32, 62098), (35, 62092), (Start: 55 @62053 has 12 MA's), (62, 61975), (64, 61942), (66, 61936), (70, 61909), (73, 61894), (75, 61876), (80, 61789), (96, 61675),

Gene: LittleMinkey_92 Start: 65026, Stop: 64622, Start Num: 55

Candidate Starts for LittleMinkey_92:

(3, 65308), (9, 65224), (37, 65089), (Start: 55 @65026 has 12 MA's), (66, 64909), (69, 64885), (73, 64867), (81, 64762), (94, 64636),

Gene: LizLemon_70 Start: 59075, Stop: 58773, Start Num: 58

Candidate Starts for LizLemon_70:

(Start: 58 @59075 has 40 MA's), (62, 59015), (66, 58976), (68, 58955), (71, 58934), (81, 58823), (84, 58802), (86, 58796), (87, 58790),

Gene: Lolalove_77 Start: 63280, Stop: 62894, Start Num: 46

Candidate Starts for Lolalove_77:

(7, 63445), (24, 63340), (Start: 29 @63328 has 4 MA's), (Start: 46 @63280 has 20 MA's), (62, 63202), (64, 63169), (66, 63163), (73, 63121), (75, 63103), (80, 63016), (96, 62902),

Gene: Magpie_73 Start: 62892, Stop: 62506, Start Num: 46

Candidate Starts for Magpie_73:

(5, 63081), (24, 62952), (Start: 29 @62940 has 4 MA's), (Start: 46 @62892 has 20 MA's), (62, 62814), (64, 62781), (70, 62748), (73, 62733), (75, 62715), (80, 62628), (96, 62514),

Gene: Marcie_58 Start: 37738, Stop: 37394, Start Num: 47

Candidate Starts for Marcie_58:

(Start: 47 @37738 has 11 MA's), (60, 37639), (69, 37585), (80, 37465), (84, 37441), (86, 37435), (88, 37417),

Gene: MasterPo_71 Start: 58942, Stop: 58640, Start Num: 58

Candidate Starts for MasterPo_71:

(Start: 58 @58942 has 40 MA's), (62, 58882), (66, 58843), (68, 58822), (71, 58801), (81, 58690), (84, 58669), (86, 58663), (87, 58657),

Gene: Mithril_75 Start: 63279, Stop: 62893, Start Num: 46

Candidate Starts for Mithril_75:

(5, 63468), (24, 63339), (Start: 29 @63327 has 4 MA's), (Start: 46 @63279 has 20 MA's), (62, 63201), (64, 63168), (66, 63162), (73, 63120), (75, 63102), (80, 63015), (96, 62901),

Gene: Mudslide_75 Start: 63316, Stop: 62930, Start Num: 46

Candidate Starts for Mudslide_75:

(10, 63472), (11, 63469), (24, 63376), (Start: 29 @63364 has 4 MA's), (36, 63349), (Start: 46 @63316 has 20 MA's), (62, 63238), (64, 63205), (66, 63199), (70, 63172), (73, 63157), (75, 63139), (80, 63052), (96, 62938),

Gene: Mysterious_75 Start: 62158, Stop: 61763, Start Num: 53

Candidate Starts for Mysterious_75:

(27, 62212), (Start: 53 @62158 has 6 MA's), (66, 62041), (69, 62017), (73, 61999), (74, 61993),

Gene: Nanao_74 Start: 62190, Stop: 61804, Start Num: 46

Candidate Starts for Nanao_74:

(24, 62250), (Start: 29 @62238 has 4 MA's), (Start: 46 @62190 has 20 MA's), (62, 62112), (66, 62073), (70, 62046), (73, 62031), (75, 62013), (80, 61926), (96, 61812),

Gene: Nangang_78 Start: 62728, Stop: 62333, Start Num: 53

Candidate Starts for Nangang_78:

(Start: 26 @62809 has 7 MA's), (Start: 53 @62728 has 6 MA's), (69, 62587), (73, 62569), (74, 62563), (75, 62551), (85, 62437),

Gene: Nehemiah_76 Start: 62221, Stop: 61826, Start Num: 53

Candidate Starts for Nehemiah_76:

(30, 62290), (31, 62287), (45, 62245), (Start: 53 @62221 has 6 MA's), (66, 62104), (69, 62080), (73, 62062), (74, 62056),

Gene: Nigel_72 Start: 61700, Stop: 61314, Start Num: 55

Candidate Starts for Nigel_72:

(4, 61904), (24, 61766), (Start: 29 @61754 has 4 MA's), (Start: 55 @61700 has 12 MA's), (62, 61622), (66, 61583), (70, 61556), (73, 61541), (75, 61523), (80, 61436), (96, 61322),

Gene: OneinaGillian_53 Start: 36771, Stop: 36427, Start Num: 47

Candidate Starts for OneinaGillian_53:

(Start: 47 @36771 has 11 MA's), (60, 36672), (69, 36618), (80, 36498), (84, 36474), (88, 36450),

Gene: Opia_71 Start: 58968, Stop: 58666, Start Num: 58

Candidate Starts for Opia_71:

(Start: 58 @58968 has 40 MA's), (62, 58908), (66, 58869), (68, 58848), (71, 58827), (81, 58716), (84, 58695), (86, 58689), (87, 58683),

Gene: PenguinLover67_79 Start: 62948, Stop: 62556, Start Num: 58

Candidate Starts for PenguinLover67_79:

(41, 63011), (42, 63002), (Start: 54 @62966 has 1 MA's), (Start: 58 @62948 has 40 MA's), (66, 62849), (69, 62825), (81, 62702), (89, 62639),

Gene: Pepe25_52 Start: 36314, Stop: 35970, Start Num: 47

Candidate Starts for Pepe25_52:

(16, 36455), (Start: 47 @36314 has 11 MA's), (60, 36215), (69, 36161), (80, 36041), (84, 36017), (88, 35993),

Gene: Phantasmagoria_69 Start: 58957, Stop: 58655, Start Num: 58

Candidate Starts for Phantasmagoria_69:

(Start: 58 @58957 has 40 MA's), (66, 58858), (68, 58837), (71, 58816), (81, 58705), (84, 58684), (86, 58678), (87, 58672),

Gene: Phelemich_74 Start: 62284, Stop: 61889, Start Num: 53

Candidate Starts for Phelemich_74:

(27, 62338), (Start: 53 @62284 has 6 MA's), (66, 62167), (69, 62143), (73, 62125), (74, 62119),

Gene: Poster_73 Start: 62191, Stop: 61805, Start Num: 46

Candidate Starts for Poster_73:

(24, 62251), (Start: 29 @62239 has 4 MA's), (Start: 46 @62191 has 20 MA's), (62, 62113), (66, 62074), (70, 62047), (73, 62032), (75, 62014), (80, 61927), (96, 61813),

Gene: Prince_75 Start: 63386, Stop: 63000, Start Num: 46

Candidate Starts for Prince_75:

(10, 63542), (11, 63539), (24, 63446), (Start: 29 @63434 has 4 MA's), (Start: 46 @63386 has 20 MA's), (62, 63308), (64, 63275), (66, 63269), (70, 63242), (73, 63227), (75, 63209), (80, 63122), (96, 63008),

Gene: PrinceCharming_71 Start: 58997, Stop: 58695, Start Num: 58

Candidate Starts for PrinceCharming_71:

(Start: 58 @58997 has 40 MA's), (62, 58937), (66, 58898), (68, 58877), (71, 58856), (81, 58745), (84, 58724), (86, 58718), (87, 58712),

Gene: QueenPie_69 Start: 61924, Stop: 61538, Start Num: 46

Candidate Starts for QueenPie_69:

(Start: 46 @61924 has 20 MA's), (62, 61846), (64, 61813), (66, 61807), (70, 61780), (73, 61765), (75, 61747), (80, 61660), (96, 61546),

Gene: Quesadilla_79 Start: 63413, Stop: 63021, Start Num: 58

Candidate Starts for Quesadilla_79:

(Start: 58 @63413 has 40 MA's), (66, 63314), (69, 63290), (80, 63170), (89, 63104),

Gene: RawrgerThat_75 Start: 62971, Stop: 62585, Start Num: 46

Candidate Starts for RawrgerThat_75:

(7, 63136), (24, 63031), (Start: 29 @63019 has 4 MA's), (Start: 46 @62971 has 20 MA's), (62, 62893), (64, 62860), (66, 62854), (70, 62827), (73, 62812), (75, 62794), (80, 62707), (96, 62593),

Gene: Reccee_78 Start: 62558, Stop: 62070, Start Num: 26

Candidate Starts for Reccee_78:

(18, 62609), (Start: 26 @62558 has 7 MA's), (Start: 48 @62495 has 1 MA's), (Start: 53 @62477 has 6 MA's), (69, 62336), (73, 62318), (74, 62312),

Gene: Renkei_74 Start: 62047, Stop: 61661, Start Num: 55

Candidate Starts for Renkei_74:

(14, 62194), (32, 62092), (35, 62086), (Start: 55 @62047 has 12 MA's), (62, 61969), (64, 61936), (66, 61930), (70, 61903), (73, 61888), (75, 61870), (80, 61783), (96, 61669),

Gene: Reprobate_76 Start: 62289, Stop: 61894, Start Num: 53

Candidate Starts for Reprobate_76:

(27, 62343), (Start: 53 @62289 has 6 MA's), (66, 62172), (69, 62148), (73, 62130), (74, 62124),

Gene: Rhinoforte_70 Start: 58995, Stop: 58693, Start Num: 58

Candidate Starts for Rhinoforte_70:

(Start: 58 @58995 has 40 MA's), (62, 58935), (66, 58896), (68, 58875), (71, 58854), (81, 58743), (84, 58722), (86, 58716), (87, 58710),

Gene: Rich_75 Start: 62998, Stop: 62510, Start Num: 26

Candidate Starts for Rich_75:

(18, 63049), (Start: 26 @62998 has 7 MA's), (Start: 48 @62935 has 1 MA's), (Start: 53 @62917 has 6 MA's), (69, 62776), (73, 62758), (74, 62752),

Gene: Rinkes_75 Start: 63331, Stop: 62945, Start Num: 51

Candidate Starts for Rinkes_75:

(Start: 48 @63343 has 1 MA's), (Start: 51 @63331 has 1 MA's), (66, 63226), (69, 63202), (73, 63184), (75, 63166), (80, 63079), (92, 62965),

Gene: Rita130_76 Start: 62228, Stop: 61740, Start Num: 26

Candidate Starts for Rita130_76:

(18, 62279), (Start: 26 @62228 has 7 MA's), (Start: 48 @62165 has 1 MA's), (Start: 53 @62147 has 6 MA's), (69, 62006), (73, 61988), (74, 61982),

Gene: RobinRose_55 Start: 37280, Stop: 36936, Start Num: 47

Candidate Starts for RobinRose_55:

(Start: 47 @37280 has 11 MA's), (60, 37181), (69, 37127), (80, 37007), (84, 36983), (88, 36959),

Gene: Romm_55 Start: 37280, Stop: 36936, Start Num: 47

Candidate Starts for Romm_55:

(Start: 47 @37280 has 11 MA's), (60, 37181), (69, 37127), (80, 37007), (84, 36983), (88, 36959),

Gene: Rosebush_69 Start: 59062, Stop: 58760, Start Num: 58

Candidate Starts for Rosebush_69:

(Start: 58 @59062 has 40 MA's), (62, 59002), (66, 58963), (68, 58942), (71, 58921), (81, 58810), (84, 58789), (86, 58783), (87, 58777),

Gene: Sabella_70 Start: 58897, Stop: 58595, Start Num: 58

Candidate Starts for Sabella_70:

(Start: 58 @58897 has 40 MA's), (66, 58798), (68, 58777), (71, 58756), (81, 58645), (84, 58624), (86, 58618), (87, 58612),

Gene: Saguaro_75 Start: 62202, Stop: 61816, Start Num: 53

Candidate Starts for Saguaro_75:

(Start: 53 @62202 has 6 MA's), (69, 62061), (70, 62058), (73, 62043), (74, 62037), (75, 62025), (77, 61971), (78, 61968), (93, 61833),

Gene: Serendipitous_76 Start: 61875, Stop: 61468, Start Num: 53

Candidate Starts for Serendipitous_76:

(Start: 53 @61875 has 6 MA's), (69, 61734), (73, 61716), (74, 61710),

Gene: SirJeffery_75 Start: 61957, Stop: 61550, Start Num: 53

Candidate Starts for SirJeffery_75:

(18, 62089), (Start: 26 @62038 has 7 MA's), (Start: 48 @61975 has 1 MA's), (Start: 53 @61957 has 6 MA's), (69, 61816), (73, 61798), (74, 61792),

Gene: Stinger_74 Start: 61821, Stop: 61435, Start Num: 55

Candidate Starts for Stinger_74:

(24, 61887), (Start: 29 @61875 has 4 MA's), (Start: 55 @61821 has 12 MA's), (62, 61743), (64, 61710), (66, 61704), (70, 61677), (73, 61662), (75, 61644), (80, 61557), (96, 61443),

Gene: Suigeneris_78 Start: 62476, Stop: 61988, Start Num: 26

Candidate Starts for Suigeneris_78:

(18, 62527), (Start: 26 @62476 has 7 MA's), (Start: 48 @62413 has 1 MA's), (Start: 53 @62395 has 6 MA's), (69, 62254), (73, 62236), (74, 62230),

Gene: Sweetums_35 Start: 22539, Stop: 22141, Start Num: 29

Candidate Starts for Sweetums_35:

(20, 22596), (Start: 29 @22539 has 4 MA's), (62, 22383), (72, 22317), (73, 22314), (83, 22203), (84, 22188),

Gene: TA17A_73 Start: 58905, Stop: 58603, Start Num: 58

Candidate Starts for TA17A_73:

(Start: 58 @58905 has 40 MA's), (66, 58806), (68, 58785), (71, 58764), (81, 58653), (84, 58632), (86, 58626),

Gene: Tempo_53 Start: 37160, Stop: 36816, Start Num: 47

Candidate Starts for Tempo_53:

(Start: 47 @37160 has 11 MA's), (60, 37061), (69, 37007), (80, 36887), (84, 36863), (88, 36839),

Gene: Teng_35 Start: 22456, Stop: 22058, Start Num: 29

Candidate Starts for Teng_35:

(20, 22513), (Start: 29 @22456 has 4 MA's), (62, 22300), (72, 22234), (73, 22231), (83, 22120), (84, 22105),

Gene: Tinciduntolum_71 Start: 59064, Stop: 58762, Start Num: 58

Candidate Starts for Tinciduntolum_71:

(Start: 58 @59064 has 40 MA's), (62, 59004), (66, 58965), (68, 58944), (71, 58923), (81, 58812), (84, 58791), (86, 58785), (87, 58779),

Gene: Tres_70 Start: 58918, Stop: 58616, Start Num: 58

Candidate Starts for Tres_70:

(Start: 58 @58918 has 40 MA's), (62, 58858), (66, 58819), (68, 58798), (71, 58777), (81, 58666), (84, 58645), (86, 58639), (87, 58633),

Gene: Vic9_00070 Start: 59761, Stop: 59459, Start Num: 58

Candidate Starts for Vic9_00070:

(Start: 58 @59761 has 40 MA's), (62, 59701), (66, 59662), (68, 59641), (71, 59620), (81, 59509), (84, 59488), (86, 59482), (87, 59476),

Gene: Vincenzo_78 Start: 64574, Stop: 64188, Start Num: 55

Candidate Starts for Vincenzo_78:

(24, 64640), (Start: 29 @64628 has 4 MA's), (Start: 55 @64574 has 12 MA's), (66, 64457), (70, 64430), (73, 64415), (96, 64196),

Gene: VioletZ_78 Start: 63482, Stop: 63096, Start Num: 46

Candidate Starts for VioletZ_78:

(10, 63638), (11, 63635), (24, 63542), (Start: 29 @63530 has 4 MA's), (36, 63515), (Start: 46 @63482 has 20 MA's), (62, 63404), (64, 63371), (66, 63365), (70, 63338), (73, 63323), (75, 63305), (80, 63218), (96, 63104),

Gene: Waleliano_74 Start: 62911, Stop: 62525, Start Num: 46

Candidate Starts for Waleliano_74:

(24, 62971), (Start: 29 @62959 has 4 MA's), (Start: 46 @62911 has 20 MA's), (62, 62833), (64, 62800), (66, 62794), (70, 62767), (73, 62752), (75, 62734), (80, 62647), (96, 62533),

Gene: West99_70 Start: 59095, Stop: 58793, Start Num: 58

Candidate Starts for West99_70:

(Start: 58 @59095 has 40 MA's), (62, 59035), (66, 58996), (68, 58975), (71, 58954), (81, 58843), (84, 58822), (86, 58816), (87, 58810),

Gene: Wilca_53 Start: 37040, Stop: 36696, Start Num: 47

Candidate Starts for Wilca_53:

(Start: 47 @37040 has 11 MA's), (56, 37010), (60, 36941), (69, 36887), (80, 36767), (84, 36743), (88, 36719),

Gene: Wrackline_39 Start: 23464, Stop: 23033, Start Num: 22

Candidate Starts for Wrackline_39:

(12, 23548), (13, 23545), (17, 23509), (21, 23473), (Start: 22 @23464 has 1 MA's), (34, 23425), (44, 23392), (67, 23245), (69, 23224), (79, 23116), (88, 23056),

Gene: Xincheng_74 Start: 64349, Stop: 63930, Start Num: 38

Candidate Starts for Xincheng_74:

(38, 64349), (Start: 55 @64316 has 12 MA's), (62, 64238), (66, 64199), (70, 64172), (73, 64157), (75, 64139), (80, 64052), (96, 63938),

Gene: Zemanar_75 Start: 63148, Stop: 62762, Start Num: 46

Candidate Starts for Zemanar_75:

(7, 63313), (24, 63208), (Start: 29 @63196 has 4 MA's), (Start: 46 @63148 has 20 MA's), (62, 63070), (64, 63037), (66, 63031), (70, 63004), (73, 62989), (75, 62971), (80, 62884), (96, 62770),

Gene: Zenteno07_89 Start: 65034, Stop: 64624, Start Num: 55

Candidate Starts for Zenteno07_89:

(Start: 55 @65034 has 12 MA's), (66, 64917), (69, 64887), (71, 64875), (73, 64869), (81, 64764),