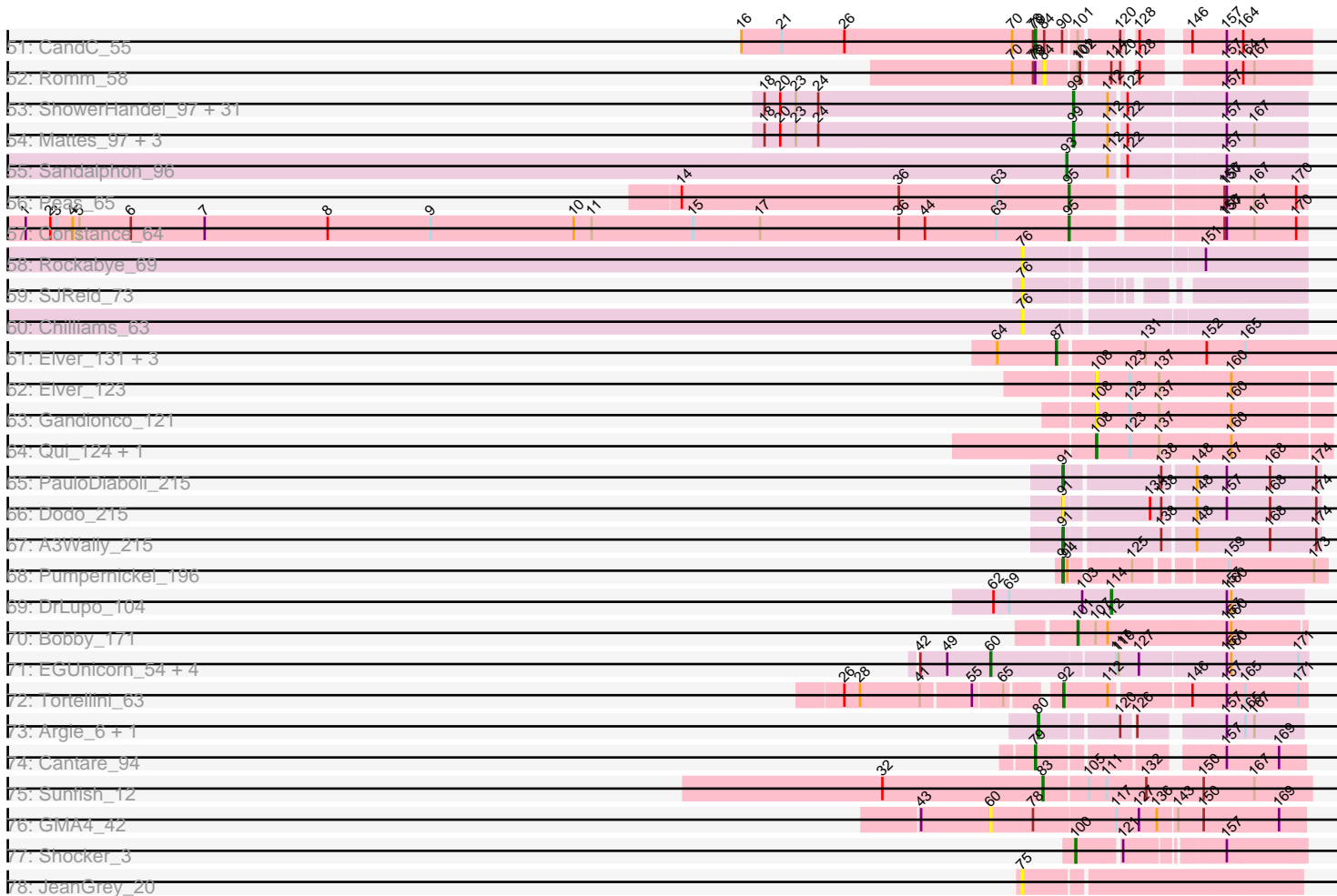


Pham 215904



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 215904 Report

This analysis was run 02/22/25 on database version 588.

Pham number 215904 has 155 members, 27 are drafts.

Phages represented in each track:

- Track 1 : Anglerfish_11, Arcanine_11, Rajelicia_10, Slagathor_11, Dynamix_11, PinkPlastic_9, Manatee_11, DreamCatcher_12, McGuire_11
- Track 2 : KSSJEB_10, U2_10, Switzer_11
- Track 3 : Squee_11, Naira_11, BeesKnees_11, Atkinbua_11, Fenn_11
- Track 4 : Ichabod_11, Briton15_12
- Track 5 : Seabiscuit_12
- Track 6 : Anon_48
- Track 7 : Dori_58, Mask_58
- Track 8 : Causa_150
- Track 9 : StAugustine_144
- Track 10 : Ranunculus_6
- Track 11 : Rizwana_7
- Track 12 : Pureglobe5_10, Pointis_8, Kubulix_8, Odyssey395_10, DogYard_7, RazzB_6, Beagle_10, MellowYellow_8, Forrestell_7
- Track 13 : Ollypop_10
- Track 14 : Ollypop_7
- Track 15 : BruhMoment_8
- Track 16 : AWGoat_6
- Track 17 : SilentRX_7
- Track 18 : G4_46
- Track 19 : Greely_244
- Track 20 : Myrna_235
- Track 21 : Phabba_246
- Track 22 : ScoobyDoobyDoo_233
- Track 23 : RedBaron_55, Nina_52
- Track 24 : Pipp_48
- Track 25 : LordFarquaad_57, Attis_55, SoilAssassin_55
- Track 26 : Clown_82
- Track 27 : Yvonnetastic_136, JonJames_139
- Track 28 : Cardigan_143
- Track 29 : Crocheter_2, Untouchable_2
- Track 30 : Perkunas_2
- Track 31 : Mossy_1
- Track 32 : Hortihabitatio_2
- Track 33 : Bantam_53
- Track 34 : SpeedDemon_540
- Track 35 : DatBoi_51

- Track 36 : MortyNRick_62
- Track 37 : BearBQ_64
- Track 38 : Squiddly_103
- Track 39 : GMA2_84
- Track 40 : Vordorf_53
- Track 41 : Sephiroth_114, Kudefre_118, Syleon_119
- Track 42 : Octobien14_114
- Track 43 : Lambo_93
- Track 44 : ParvusTarda_93, Wojtek_85
- Track 45 : Kelcole_54, OneinaGillian_56
- Track 46 : Fransoyer_60, SadLad_63
- Track 47 : Marcie_61
- Track 48 : Pepe25_55
- Track 49 : Tempo_56
- Track 50 : RobinRose_58
- Track 51 : CandC_55
- Track 52 : Romm_58
- Track 53 : ShowerHandel_97, Gorge_95, Burwell21_90, Brocalys_88, Martik_95, Clifton_88, LastJedi_87, Nivrat_96, Crumble_91, LilMoolah_99, Pippy_94, Yorick_92, Philus_98, James_100, Jarcob_99, Cabrinians_93, Vivum_98, Spoonbill_96, Whouxphf_100, ByChance_87, Lizziana_97, FreddyB_106, Minnie_91, Maravista_93, NormanBulbieJr_94, Saal_94, OlympiaSaint_100, Blexus_93, Koella_89, Latretium_99, SwagPigglett_98, Priscilla_97
- Track 54 : Mattes_97, BobaPhett_98, ShiLan_99, Zizzle_99
- Track 55 : Sandalphon_96
- Track 56 : Peas_65
- Track 57 : Constance_64
- Track 58 : Rockabye_69
- Track 59 : SJReid_73
- Track 60 : Chilliams_63
- Track 61 : Elver_131, Paella_133, Gandionco_129, Qui_133
- Track 62 : Elver_123
- Track 63 : Gandionco_121
- Track 64 : Qui_124, Paella_124
- Track 65 : PauloDiaboli_215
- Track 66 : Dodo_215
- Track 67 : A3Wally_215
- Track 68 : Pumpernickel_196
- Track 69 : DrLupo_104
- Track 70 : Bobby_171
- Track 71 : EGUnicorn_54, Magsby_55, Xerxes_55, Gex_56, Pipsqueaks_56
- Track 72 : Tortellini_63
- Track 73 : Argie_6, GodPhather_6
- Track 74 : Cantare_94
- Track 75 : Sunfish_12
- Track 76 : GMA4_42
- Track 77 : Shocker_3
- Track 78 : JeanGrey_20

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

The start number called the most often in the published annotations is 99, it was called in 35 of the 128 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Blexus_93, BobaPhett_98, Brocalys_88, Burwell21_90, ByChance_87, Cabrinians_93, Clifton_88, Crumble_91, FreddyB_106, Gorge_95, James_100, Jarcob_99, Koella_89, LastJedi_87, Latretium_99, LilMoolah_99, Lizziana_97, Maravista_93, Martik_95, Mattes_97, Minnie_91, Nivrat_96, NormanBulbieJr_94, Ollypop_10, OlympiaSaint_100, Philus_98, Pippy_94, Priscilla_97, Saal_94, ShiLan_99, ShowerHandel_97, Spoonbill_96, SwagPiggett_98, Vivum_98, Whouphf_100, Yorick_92, Zizzle_99,

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

- Rizwana_7,

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

- A3Wally_215, AWGoat_6, Anglerfish_11, Anon_48, Arcanine_11, Argie_6, Atkinbua_11, Attis_55, Bantam_53, Beagle_10, BearBQ_64, BeesKnees_11, Bobby_171, Briton15_12, BruhMoment_8, CandC_55, Cantare_94, Cardigan_143, Causa_150, Chilliams_63, Clown_82, Constance_64, Crocheter_2, DatBoi_51, Dodo_215, DogYard_7, Dori_58, DrLupo_104, DreamCatcher_12, Dynamix_11, EGUnicorn_54, Elver_123, Elver_131, Fenn_11, Forrestell_7, Fransoyer_60, G4_46, GMA2_84, GMA4_42, Gandionco_121, Gandionco_129, Gex_56, GodPhather_6, Greely_244, Hortihabitatio_2, Ichabod_11, JeanGrey_20, JonJames_139, KSSJEB_10, Kelcole_54, Kubulix_8, Kudrefre_118, Lambo_93, LordFarquaad_57, Magsby_55, Manatee_11, Marcie_61, Mask_58, McGuire_11, MellowYellow_8, MortyNRick_62, Mossy_1, Myrna_235, Naira_11, Nina_52, Octobien14_114, Odyssey395_10, Ollypop_7, OneinaGillian_56, Paella_124, Paella_133, ParvusTarda_93, PauloDiaboli_215, Peas_65, Pepe25_55, Perkunas_2, Phabba_246, PinkPlastic_9, Pipp_48, Pipsqueaks_56, Pointis_8, Pumpernickel_196, Pureglobe5_10, Qui_124, Qui_133, Rajelicia_10, Ranunculus_6, RazzB_6, RedBaron_55, RobinRose_58, Rockabye_69, Romm_58, SJReid_73, SadLad_63, Sandalphon_96, ScoobyDoobyDoo_233, Seabiscuit_12, Sephiroth_114, Shocker_3, SilentRX_7, Slagathor_11, SoilAssassin_55, SpeedDemon_540, Squee_11, Squiddly_103, StAugustine_144, Sunfish_12, Switzer_11, Syleon_119, Tempo_56, Tortellini_63, U2_10, Untouchable_2, Vordorf_53, Wojtek_85, Xerxes_55, Yvonnestic_136,

Summary by start number:

Start 57:

- Found in 1 of 155 (0.6%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Vordorf_53 (DT),

Start 60:

- Found in 6 of 155 (3.9%) of genes in pham
- Manual Annotations of this start: 4 of 128
- Called 100.0% of time when present
- Phage (with cluster) where this start called: EGUnicorn_54 (N), GMA4_42 (singleton), Gex_56 (N), Magsby_55 (N), Pipsqueaks_56 (N), Xerxes_55 (N),

Start 64:

- Found in 6 of 155 (3.9%) of genes in pham
- Manual Annotations of this start: 2 of 128
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Dori_58 (AD), Mask_58 (AD),

Start 68:

- Found in 11 of 155 (7.1%) of genes in pham
- Manual Annotations of this start: 6 of 128
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Beagle_10 (AP2), DogYard_7 (AP2), Forrestell_7 (AP2), Kubulix_8 (AP2), MellowYellow_8 (AP2), Odyssey395_10 (AP2), Ollypop_7 (AP2), Pointis_8 (AP2), Pureglobe5_10 (AP2), Ranunculus_6 (AP), RazzB_6 (AP2),

Start 69:

- Found in 4 of 155 (2.6%) of genes in pham
- Manual Annotations of this start: 3 of 128
- Called 75.0% of time when present
- Phage (with cluster) where this start called: Attis_55 (CZ2), LordFarquaad_57 (CZ2), SoilAssassin_55 (CZ2),

Start 71:

- Found in 3 of 155 (1.9%) of genes in pham
- Manual Annotations of this start: 2 of 128
- Called 66.7% of time when present
- Phage (with cluster) where this start called: ParvusTarda_93 (DV), Wojtek_85 (DV),

Start 72:

- Found in 4 of 155 (2.6%) of genes in pham
- Manual Annotations of this start: 4 of 128
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AWGoat_6 (AP4), BruhMoment_8 (AP3), Rizwana_7 (AP1), SilentRX_7 (AP4),

Start 73:

- Found in 3 of 155 (1.9%) of genes in pham
- Manual Annotations of this start: 2 of 128
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Cardigan_143 (DD), JonJames_139 (DD), Yvonnetastic_136 (DD),

Start 74:

- Found in 7 of 155 (4.5%) of genes in pham
- Manual Annotations of this start: 1 of 128
- Called 14.3% of time when present
- Phage (with cluster) where this start called: Seabiscuit_12 (A1),

Start 75:

- Found in 1 of 155 (0.6%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present

- Phage (with cluster) where this start called: JeanGrey_20 (singleton),

Start 76:

- Found in 3 of 155 (1.9%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Chilliams_63 (FC), Rockabye_69 (FC), SJReid_73 (FC),

Start 78:

- Found in 12 of 155 (7.7%) of genes in pham
- Manual Annotations of this start: 1 of 128
- Called 8.3% of time when present
- Phage (with cluster) where this start called: RobinRose_58 (EG),

Start 79:

- Found in 22 of 155 (14.2%) of genes in pham
- Manual Annotations of this start: 15 of 128
- Called 81.8% of time when present
- Phage (with cluster) where this start called: CandC_55 (EG), Cantare_94 (singleton), Crocheter_2 (DJ), GMA2_84 (DS), Greely_244 (C2), Hortihabitatio_2 (DJ), Kelcole_54 (EG), Lambo_93 (DV), Marcie_61 (EG), Mossy_1 (DJ), Myrna_235 (C2), OneinaGillian_56 (EG), Pepe25_55 (EG), Perkunas_2 (DJ), Phabba_246 (C2), ScoobyDoobyDoo_233 (C2), Tempo_56 (EG), Untouchable_2 (DJ),

Start 80:

- Found in 3 of 155 (1.9%) of genes in pham
- Manual Annotations of this start: 3 of 128
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Argie_6 (W), G4_46 (BW), GodPhather_6 (W),

Start 82:

- Found in 4 of 155 (2.6%) of genes in pham
- Manual Annotations of this start: 1 of 128
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Causa_150 (AI), StAugustine_144 (AI),

Start 83:

- Found in 23 of 155 (14.8%) of genes in pham
- Manual Annotations of this start: 19 of 128
- Called 87.0% of time when present
- Phage (with cluster) where this start called: Anglerfish_11 (A1), Arcanine_11 (A1), Atkinbua_11 (A1), BeesKnees_11 (A1), DreamCatcher_12 (A1), Dynamix_11 (A1), Fenn_11 (A1), KSSJEB_10 (A1), Manatee_11 (A1), McGuire_11 (A1), Naira_11 (A1), Nina_52 (CT), PinkPlastic_9 (A1), Rajelicia_10 (A1), RedBaron_55 (CT), Slagathor_11 (A1), Squee_11 (A1), Sunfish_12 (singleton), Switzer_11 (A1), U2_10 (A1),

Start 84:

- Found in 7 of 155 (4.5%) of genes in pham
- No Manual Annotations of this start.
- Called 14.3% of time when present

- Phage (with cluster) where this start called: Romm_58 (EG),

Start 87:

- Found in 4 of 155 (2.6%) of genes in pham
- Manual Annotations of this start: 2 of 128
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Elver_131 (FK), Gandionco_129 (FK), Paella_133 (FK), Qui_133 (FK),

Start 91:

- Found in 4 of 155 (2.6%) of genes in pham
- Manual Annotations of this start: 3 of 128
- Called 100.0% of time when present
- Phage (with cluster) where this start called: A3Wally_215 (GD1), Dodo_215 (GD1), PauloDiaboli_215 (GD1), Pumpnickel_196 (GD4),

Start 92:

- Found in 1 of 155 (0.6%) of genes in pham
- Manual Annotations of this start: 1 of 128
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Tortellini_63 (P2),

Start 93:

- Found in 1 of 155 (0.6%) of genes in pham
- Manual Annotations of this start: 1 of 128
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Sandalphon_96 (F1),

Start 95:

- Found in 4 of 155 (2.6%) of genes in pham
- Manual Annotations of this start: 4 of 128
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Anon_48 (A15), Constance_64 (FA), DatBoi_51 (DL), Peas_65 (FA),

Start 96:

- Found in 4 of 155 (2.6%) of genes in pham
- Manual Annotations of this start: 3 of 128
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BearBQ_64 (DN), Clown_82 (DC2), MortyNRick_62 (DN), Squiddly_103 (DN2),

Start 97:

- Found in 3 of 155 (1.9%) of genes in pham
- Manual Annotations of this start: 3 of 128
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Bantam_53 (DL), Pipp_48 (CV), SpeedDemon_540 (DL),

Start 98:

- Found in 2 of 155 (1.3%) of genes in pham
- Manual Annotations of this start: 2 of 128
- Called 100.0% of time when present

- Phage (with cluster) where this start called: Briton15_12 (A1), Ichabod_11 (A1),

Start 99:

- Found in 38 of 155 (24.5%) of genes in pham
- Manual Annotations of this start: 35 of 128
- Called 97.4% of time when present
- Phage (with cluster) where this start called: Blexus_93 (F1), BobaPhett_98 (F1), Brocalys_88 (F1), Burwell21_90 (F1), ByChance_87 (F1), Cabrinians_93 (F1), Clifton_88 (F1), Crumble_91 (F1), FreddyB_106 (F1), Gorge_95 (F1), James_100 (F1), Jarcob_99 (F1), Koella_89 (F1), LastJedi_87 (F1), Latretium_99 (F1), LilMoolah_99 (F1), Lizziana_97 (F1), Maravista_93 (F1), Martik_95 (F1), Mattes_97 (F1), Minnie_91 (F1), Nivrat_96 (F1), NormanBulbieJr_94 (F1), Ollypop_10 (AP2), OlympiaSaint_100 (F1), Philus_98 (F1), Pippy_94 (F1), Priscilla_97 (F1), Saal_94 (F1), ShiLan_99 (F1), ShowerHandel_97 (F1), Spoonbill_96 (F1), SwagPigglett_98 (F1), Vivum_98 (F1), Whouxphf_100 (F1), Yorick_92 (F1), Zizzle_99 (F1),

Start 100:

- Found in 5 of 155 (3.2%) of genes in pham
- Manual Annotations of this start: 1 of 128
- Called 20.0% of time when present
- Phage (with cluster) where this start called: Shocker_3 (singleton),

Start 101:

- Found in 36 of 155 (23.2%) of genes in pham
- Manual Annotations of this start: 1 of 128
- Called 2.8% of time when present
- Phage (with cluster) where this start called: Bobby_171 (J),

Start 102:

- Found in 9 of 155 (5.8%) of genes in pham
- Manual Annotations of this start: 6 of 128
- Called 66.7% of time when present
- Phage (with cluster) where this start called: Fransoyer_60 (EG), Kudrefre_118 (DU1), Octobien14_114 (DU1), SadLad_63 (EG), Sephiroth_114 (DU1), Syleon_119 (DU1),

Start 108:

- Found in 4 of 155 (2.6%) of genes in pham
- Manual Annotations of this start: 2 of 128
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Elver_123 (FK), Gandionco_121 (FK), Paella_124 (FK), Qui_124 (FK),

Start 114:

- Found in 5 of 155 (3.2%) of genes in pham
- Manual Annotations of this start: 1 of 128
- Called 20.0% of time when present
- Phage (with cluster) where this start called: DrLupo_104 (H2),

Summary by clusters:

There are 37 clusters represented in this pham: DN, GD1, singleton, DJ, AP2, AP3, DD, AP1, DL, AP4, FA, FC, DV, GD4, DT, FK, DS, A15, A1, CZ2, DN2, C2, P2, AD, AI, EG, J, N, AP, W, DU1, DC2, CV, CT, F1, H2, BW,

Info for manual annotations of cluster A1:

- Start number 74 was manually annotated 1 time for cluster A1.
- Start number 83 was manually annotated 17 times for cluster A1.
- Start number 98 was manually annotated 2 times for cluster A1.

Info for manual annotations of cluster A15:

- Start number 95 was manually annotated 1 time for cluster A15.

Info for manual annotations of cluster AD:

- Start number 64 was manually annotated 2 times for cluster AD.

Info for manual annotations of cluster AI:

- Start number 82 was manually annotated 1 time for cluster AI.

Info for manual annotations of cluster AP:

- Start number 68 was manually annotated 1 time for cluster AP.

Info for manual annotations of cluster AP1:

- Start number 72 was manually annotated 1 time for cluster AP1.

Info for manual annotations of cluster AP2:

- Start number 68 was manually annotated 5 times for cluster AP2.

Info for manual annotations of cluster AP3:

- Start number 72 was manually annotated 1 time for cluster AP3.

Info for manual annotations of cluster AP4:

- Start number 72 was manually annotated 2 times for cluster AP4.

Info for manual annotations of cluster BW:

- Start number 80 was manually annotated 1 time for cluster BW.

Info for manual annotations of cluster C2:

- Start number 79 was manually annotated 3 times for cluster C2.

Info for manual annotations of cluster CT:

- Start number 83 was manually annotated 1 time for cluster CT.

Info for manual annotations of cluster CV:

- Start number 97 was manually annotated 1 time for cluster CV.

Info for manual annotations of cluster CZ2:

- Start number 69 was manually annotated 3 times for cluster CZ2.

Info for manual annotations of cluster DC2:

- Start number 96 was manually annotated 1 time for cluster DC2.

Info for manual annotations of cluster DD:

- Start number 73 was manually annotated 2 times for cluster DD.

Info for manual annotations of cluster DJ:

- Start number 79 was manually annotated 4 times for cluster DJ.

Info for manual annotations of cluster DL:

- Start number 95 was manually annotated 1 time for cluster DL.
- Start number 97 was manually annotated 2 times for cluster DL.

Info for manual annotations of cluster DN:

- Start number 96 was manually annotated 1 time for cluster DN.

Info for manual annotations of cluster DN2:

- Start number 96 was manually annotated 1 time for cluster DN2.

Info for manual annotations of cluster DU1:

- Start number 102 was manually annotated 4 times for cluster DU1.

Info for manual annotations of cluster DV:

- Start number 71 was manually annotated 2 times for cluster DV.
- Start number 79 was manually annotated 1 time for cluster DV.

Info for manual annotations of cluster EG:

- Start number 78 was manually annotated 1 time for cluster EG.
- Start number 79 was manually annotated 6 times for cluster EG.
- Start number 102 was manually annotated 2 times for cluster EG.

Info for manual annotations of cluster F1:

- Start number 93 was manually annotated 1 time for cluster F1.
- Start number 99 was manually annotated 35 times for cluster F1.

Info for manual annotations of cluster FA:

- Start number 95 was manually annotated 2 times for cluster FA.

Info for manual annotations of cluster FK:

- Start number 87 was manually annotated 2 times for cluster FK.
- Start number 108 was manually annotated 2 times for cluster FK.

Info for manual annotations of cluster GD1:

- Start number 91 was manually annotated 2 times for cluster GD1.

Info for manual annotations of cluster GD4:

- Start number 91 was manually annotated 1 time for cluster GD4.

Info for manual annotations of cluster H2:

- Start number 114 was manually annotated 1 time for cluster H2.

Info for manual annotations of cluster J:

- Start number 101 was manually annotated 1 time for cluster J.

Info for manual annotations of cluster N:

- Start number 60 was manually annotated 4 times for cluster N.

Info for manual annotations of cluster P2:

- Start number 92 was manually annotated 1 time for cluster P2.

Info for manual annotations of cluster W:

- Start number 80 was manually annotated 2 times for cluster W.

Gene Information:

Gene: A3Wally_215 Start: 115440, Stop: 115123, Start Num: 91

Candidate Starts for A3Wally_215:

(Start: 91 @115440 has 3 MA's), (138, 115323), (148, 115284), (168, 115188), (174, 115128),

Gene: AWGoat_6 Start: 2566, Stop: 2979, Start Num: 72

Candidate Starts for AWGoat_6:

(Start: 72 @2566 has 4 MA's), (103, 2656), (140, 2773), (166, 2869),

Gene: Anglerfish_11 Start: 6625, Stop: 6939, Start Num: 83

Candidate Starts for Anglerfish_11:

(Start: 83 @6625 has 19 MA's), (Start: 101 @6664 has 1 MA's), (107, 6673), (133, 6742), (151, 6817), (167, 6877),

Gene: Anon_48 Start: 31013, Stop: 30756, Start Num: 95

Candidate Starts for Anon_48:

(Start: 95 @31013 has 4 MA's), (149, 30884), (157, 30860),

Gene: Arcanine_11 Start: 6591, Stop: 6905, Start Num: 83

Candidate Starts for Arcanine_11:

(Start: 83 @6591 has 19 MA's), (Start: 101 @6630 has 1 MA's), (107, 6639), (133, 6708), (151, 6783), (167, 6843),

Gene: Argie_6 Start: 3283, Stop: 3579, Start Num: 80

Candidate Starts for Argie_6:

(Start: 80 @3283 has 3 MA's), (120, 3376), (126, 3391), (157, 3481), (165, 3505), (167, 3517),

Gene: Atkinbua_11 Start: 6636, Stop: 6950, Start Num: 83

Candidate Starts for Atkinbua_11:

(Start: 83 @6636 has 19 MA's), (Start: 101 @6675 has 1 MA's), (133, 6753), (144, 6798),

Gene: Attis_55 Start: 39035, Stop: 39415, Start Num: 69

Candidate Starts for Attis_55:

(Start: 69 @39035 has 3 MA's), (88, 39089), (135, 39218), (144, 39254), (150, 39281), (151, 39284), (160, 39314), (165, 39332), (167, 39344), (171, 39401),

Gene: Bantam_53 Start: 43734, Stop: 44000, Start Num: 97

Candidate Starts for Bantam_53:

(Start: 97 @43734 has 3 MA's), (112, 43782), (113, 43785), (149, 43878), (157, 43902),

Gene: Beagle_10 Start: 3455, Stop: 3862, Start Num: 68

Candidate Starts for Beagle_10:

(Start: 68 @3455 has 6 MA's), (85, 3506), (86, 3515), (118, 3602), (135, 3650), (150, 3716), (155, 3734), (160, 3752),

Gene: BearBQ_64 Start: 41458, Stop: 41745, Start Num: 96
Candidate Starts for BearBQ_64:
(31, 41194), (37, 41230), (38, 41236), (56, 41332), (89, 41446), (Start: 96 @41458 has 3 MA's), (112, 41503), (141, 41575), (162, 41653), (167, 41677), (171, 41734),

Gene: BeesKnees_11 Start: 6720, Stop: 7034, Start Num: 83
Candidate Starts for BeesKnees_11:
(Start: 83 @6720 has 19 MA's), (Start: 101 @6759 has 1 MA's), (133, 6837), (144, 6882),

Gene: Blexus_93 Start: 53556, Stop: 53837, Start Num: 99
Candidate Starts for Blexus_93:
(18, 53145), (20, 53166), (23, 53187), (24, 53217), (Start: 99 @53556 has 35 MA's), (112, 53601), (122, 53619), (157, 53736),

Gene: BobaPhett_98 Start: 55238, Stop: 55519, Start Num: 99
Candidate Starts for BobaPhett_98:
(18, 54827), (20, 54848), (23, 54869), (24, 54899), (Start: 99 @55238 has 35 MA's), (112, 55283), (122, 55301), (157, 55418), (167, 55454),

Gene: Bobby_171 Start: 94727, Stop: 95017, Start Num: 101
Candidate Starts for Bobby_171:
(Start: 101 @94727 has 1 MA's), (107, 94751), (112, 94766), (157, 94919), (160, 94925),

Gene: Briton15_12 Start: 6774, Stop: 7046, Start Num: 98
Candidate Starts for Briton15_12:
(Start: 98 @6774 has 2 MA's), (112, 6813), (122, 6831), (146, 6909), (157, 6948),

Gene: Brocalys_88 Start: 50717, Stop: 50998, Start Num: 99
Candidate Starts for Brocalys_88:
(18, 50306), (20, 50327), (23, 50348), (24, 50378), (Start: 99 @50717 has 35 MA's), (112, 50762), (122, 50780), (157, 50897),

Gene: BruhMoment_8 Start: 3480, Stop: 3902, Start Num: 72
Candidate Starts for BruhMoment_8:
(27, 3276), (30, 3288), (47, 3375), (Start: 72 @3480 has 4 MA's), (85, 3522), (105, 3579), (124, 3636), (136, 3669), (151, 3735), (153, 3738), (160, 3768),

Gene: Burwell21_90 Start: 53003, Stop: 53284, Start Num: 99
Candidate Starts for Burwell21_90:
(18, 52592), (20, 52613), (23, 52634), (24, 52664), (Start: 99 @53003 has 35 MA's), (112, 53048), (122, 53066), (157, 53183),

Gene: ByChance_87 Start: 49075, Stop: 49356, Start Num: 99
Candidate Starts for ByChance_87:
(18, 48664), (20, 48685), (23, 48706), (24, 48736), (Start: 99 @49075 has 35 MA's), (112, 49120), (122, 49138), (157, 49255),

Gene: Cabrinians_93 Start: 52638, Stop: 52919, Start Num: 99
Candidate Starts for Cabrinians_93:
(18, 52227), (20, 52248), (23, 52269), (24, 52299), (Start: 99 @52638 has 35 MA's), (112, 52683), (122, 52701), (157, 52818),

Gene: CandC_55 Start: 37729, Stop: 37433, Start Num: 79

Candidate Starts for CandC_55:

(16, 38122), (21, 38068), (26, 37984), (70, 37759), (Start: 78 @37732 has 1 MA's), (Start: 79 @37729 has 15 MA's), (84, 37717), (90, 37693), (Start: 101 @37678 has 1 MA's), (120, 37630), (128, 37621), (146, 37585), (157, 37543), (164, 37522),

Gene: Cantare_94 Start: 71064, Stop: 71369, Start Num: 79

Candidate Starts for Cantare_94:

(Start: 79 @71064 has 15 MA's), (157, 71268), (169, 71337),

Gene: Cardigan_143 Start: 79014, Stop: 79379, Start Num: 73

Candidate Starts for Cardigan_143:

(Start: 73 @79014 has 2 MA's), (81, 79044), (86, 79059), (88, 79065), (Start: 100 @79089 has 1 MA's), (120, 79149), (156, 79257), (157, 79260), (172, 79365),

Gene: Causa_150 Start: 84210, Stop: 83881, Start Num: 82

Candidate Starts for Causa_150:

(Start: 82 @84210 has 1 MA's), (104, 84153), (146, 84015), (154, 83991), (166, 83943),

Gene: Chilliams_63 Start: 29204, Stop: 29557, Start Num: 76

Candidate Starts for Chilliams_63:

(76, 29204),

Gene: Clifton_88 Start: 51692, Stop: 51973, Start Num: 99

Candidate Starts for Clifton_88:

(18, 51281), (20, 51302), (23, 51323), (24, 51353), (Start: 99 @51692 has 35 MA's), (112, 51737), (122, 51755), (157, 51872),

Gene: Clown_82 Start: 53661, Stop: 54005, Start Num: 96

Candidate Starts for Clown_82:

(Start: 96 @53661 has 3 MA's), (112, 53709), (139, 53778), (153, 53832), (155, 53841), (175, 53973), (176, 53982),

Gene: Constance_64 Start: 41355, Stop: 41633, Start Num: 95

Candidate Starts for Constance_64:

(1, 39963), (2, 39996), (3, 40005), (4, 40026), (5, 40035), (6, 40104), (7, 40203), (8, 40368), (9, 40506), (10, 40698), (11, 40722), (15, 40857), (17, 40944), (36, 41130), (44, 41163), (63, 41259), (Start: 95 @41355 has 4 MA's), (156, 41529), (157, 41532), (167, 41568), (170, 41622),

Gene: Crocheter_2 Start: 479, Stop: 808, Start Num: 79

Candidate Starts for Crocheter_2:

(Start: 79 @479 has 15 MA's), (106, 545), (150, 686), (157, 713), (162, 725),

Gene: Crumble_91 Start: 49362, Stop: 49643, Start Num: 99

Candidate Starts for Crumble_91:

(18, 48951), (20, 48972), (23, 48993), (24, 49023), (Start: 99 @49362 has 35 MA's), (112, 49407), (122, 49425), (157, 49542),

Gene: DatBoi_51 Start: 43635, Stop: 43889, Start Num: 95

Candidate Starts for DatBoi_51:

(Start: 95 @43635 has 4 MA's), (109, 43674), (157, 43791),

Gene: Dodo_215 Start: 115242, Stop: 114925, Start Num: 91

Candidate Starts for Dodo_215:

(Start: 91 @115242 has 3 MA's), (134, 115140), (138, 115125), (148, 115086), (157, 115047), (168, 114990), (174, 114930),

Gene: DogYard_7 Start: 3331, Stop: 3738, Start Num: 68

Candidate Starts for DogYard_7:

(Start: 68 @3331 has 6 MA's), (85, 3382), (86, 3391), (118, 3478), (135, 3526), (150, 3592), (155, 3610), (160, 3628),

Gene: Dori_58 Start: 47703, Stop: 48095, Start Num: 64

Candidate Starts for Dori_58:

(54, 47673), (Start: 64 @47703 has 2 MA's), (Start: 78 @47751 has 1 MA's), (117, 47850), (119, 47853), (127, 47880), (157, 47991), (160, 47997),

Gene: DrLupo_104 Start: 65399, Stop: 65650, Start Num: 114

Candidate Starts for DrLupo_104:

(62, 65246), (Start: 69 @65267 has 3 MA's), (103, 65360), (Start: 114 @65399 has 1 MA's), (157, 65552), (160, 65558),

Gene: DreamCatcher_12 Start: 7365, Stop: 7679, Start Num: 83

Candidate Starts for DreamCatcher_12:

(Start: 83 @7365 has 19 MA's), (Start: 101 @7404 has 1 MA's), (107, 7413), (133, 7482), (151, 7557), (167, 7617),

Gene: Dynamix_11 Start: 6722, Stop: 7036, Start Num: 83

Candidate Starts for Dynamix_11:

(Start: 83 @6722 has 19 MA's), (Start: 101 @6761 has 1 MA's), (107, 6770), (133, 6839), (151, 6914), (167, 6974),

Gene: EGUnicorn_54 Start: 35104, Stop: 35502, Start Num: 60

Candidate Starts for EGUnicorn_54:

(42, 35014), (49, 35050), (Start: 60 @35104 has 4 MA's), (117, 35257), (119, 35260), (127, 35287), (157, 35398), (160, 35404), (171, 35491),

Gene: Elver_131 Start: 70843, Stop: 71208, Start Num: 87

Candidate Starts for Elver_131:

(Start: 64 @70765 has 2 MA's), (Start: 87 @70843 has 2 MA's), (131, 70954), (152, 71029), (165, 71080),

Gene: Elver_123 Start: 67517, Stop: 67825, Start Num: 108

Candidate Starts for Elver_123:

(Start: 108 @67517 has 2 MA's), (123, 67562), (137, 67601), (160, 67697),

Gene: Fenn_11 Start: 6952, Stop: 7266, Start Num: 83

Candidate Starts for Fenn_11:

(Start: 83 @6952 has 19 MA's), (Start: 101 @6991 has 1 MA's), (133, 7069), (144, 7114),

Gene: Forrestell_7 Start: 3035, Stop: 3442, Start Num: 68

Candidate Starts for Forrestell_7:

(Start: 68 @3035 has 6 MA's), (85, 3086), (86, 3095), (118, 3182), (135, 3230), (150, 3296), (155, 3314), (160, 3332),

Gene: Fransoyer_60 Start: 45317, Stop: 45054, Start Num: 102

Candidate Starts for Fransoyer_60:

(Start: 102 @45317 has 6 MA's), (110, 45290), (121, 45269), (157, 45158), (167, 45122), (171, 45065),

Gene: FreddyB_106 Start: 54284, Stop: 54565, Start Num: 99

Candidate Starts for FreddyB_106:

(18, 53873), (20, 53894), (23, 53915), (24, 53945), (Start: 99 @54284 has 35 MA's), (112, 54329), (122, 54347), (157, 54464),

Gene: G4_46 Start: 30222, Stop: 30545, Start Num: 80

Candidate Starts for G4_46:

(67, 30180), (Start: 80 @30222 has 3 MA's), (Start: 83 @30228 has 19 MA's), (103, 30276), (116, 30312), (144, 30378), (151, 30408), (157, 30432),

Gene: GMA2_84 Start: 80351, Stop: 80010, Start Num: 79

Candidate Starts for GMA2_84:

(Start: 79 @80351 has 15 MA's), (Start: 83 @80342 has 19 MA's), (150, 80141), (151, 80138), (171, 80021),

Gene: GMA4_42 Start: 31658, Stop: 32065, Start Num: 60

Candidate Starts for GMA4_42:

(43, 31565), (Start: 60 @31658 has 4 MA's), (Start: 78 @31715 has 1 MA's), (117, 31823), (127, 31853), (136, 31877), (143, 31901), (150, 31934), (169, 32033),

Gene: Gandionco_121 Start: 66329, Stop: 66637, Start Num: 108

Candidate Starts for Gandionco_121:

(Start: 108 @66329 has 2 MA's), (123, 66374), (137, 66413), (160, 66509),

Gene: Gandionco_129 Start: 69661, Stop: 70026, Start Num: 87

Candidate Starts for Gandionco_129:

(Start: 64 @69583 has 2 MA's), (Start: 87 @69661 has 2 MA's), (131, 69772), (152, 69847), (165, 69898),

Gene: Gex_56 Start: 36283, Stop: 36681, Start Num: 60

Candidate Starts for Gex_56:

(42, 36193), (49, 36229), (Start: 60 @36283 has 4 MA's), (117, 36436), (119, 36439), (127, 36466), (157, 36577), (160, 36583), (171, 36670),

Gene: GodPhather_6 Start: 3283, Stop: 3579, Start Num: 80

Candidate Starts for GodPhather_6:

(Start: 80 @3283 has 3 MA's), (120, 3376), (126, 3391), (157, 3481), (165, 3505), (167, 3517),

Gene: Gorge_95 Start: 53911, Stop: 54192, Start Num: 99

Candidate Starts for Gorge_95:

(18, 53500), (20, 53521), (23, 53542), (24, 53572), (Start: 99 @53911 has 35 MA's), (112, 53956), (122, 53974), (157, 54091),

Gene: Greely_244 Start: 137695, Stop: 138051, Start Num: 79

Candidate Starts for Greely_244:

(22, 137374), (29, 137473), (35, 137515), (Start: 79 @137695 has 15 MA's), (Start: 101 @137746 has 1 MA's), (133, 137821), (134, 137824), (145, 137854), (146, 137863), (157, 137905), (160, 137911), (163, 137920), (165, 137929),

Gene: Hortihabitatio_2 Start: 447, Stop: 776, Start Num: 79

Candidate Starts for Hortihabitatio_2:

(52, 342), (66, 414), (Start: 79 @447 has 15 MA's), (106, 513), (150, 654), (156, 678), (157, 681), (162, 693),

Gene: Ichabod_11 Start: 6739, Stop: 7011, Start Num: 98

Candidate Starts for Ichabod_11:

(Start: 98 @6739 has 2 MA's), (112, 6778), (122, 6796), (146, 6874), (157, 6913),

Gene: James_100 Start: 55293, Stop: 55574, Start Num: 99

Candidate Starts for James_100:

(18, 54882), (20, 54903), (23, 54924), (24, 54954), (Start: 99 @55293 has 35 MA's), (112, 55338), (122, 55356), (157, 55473),

Gene: Jarcob_99 Start: 54892, Stop: 55173, Start Num: 99

Candidate Starts for Jarcob_99:

(18, 54481), (20, 54502), (23, 54523), (24, 54553), (Start: 99 @54892 has 35 MA's), (112, 54937), (122, 54955), (157, 55072),

Gene: JeanGrey_20 Start: 10459, Stop: 10809, Start Num: 75

Candidate Starts for JeanGrey_20:

(75, 10459),

Gene: JonJames_139 Start: 79256, Stop: 79624, Start Num: 73

Candidate Starts for JonJames_139:

(Start: 73 @79256 has 2 MA's), (81, 79286), (86, 79301), (88, 79307), (Start: 100 @79331 has 1 MA's), (115, 79382), (156, 79502), (157, 79505), (165, 79529), (172, 79610),

Gene: KSSJEB_10 Start: 6483, Stop: 6797, Start Num: 83

Candidate Starts for KSSJEB_10:

(Start: 74 @6456 has 1 MA's), (Start: 83 @6483 has 19 MA's), (Start: 101 @6522 has 1 MA's), (107, 6531), (133, 6600), (151, 6675), (167, 6735),

Gene: Kelcole_54 Start: 37921, Stop: 37628, Start Num: 79

Candidate Starts for Kelcole_54:

(70, 37951), (Start: 78 @37924 has 1 MA's), (Start: 79 @37921 has 15 MA's), (84, 37909), (Start: 101 @37870 has 1 MA's), (Start: 102 @37867 has 6 MA's), (Start: 114 @37834 has 1 MA's), (120, 37822), (128, 37813), (157, 37735), (164, 37714), (167, 37699),

Gene: Koella_89 Start: 50055, Stop: 50336, Start Num: 99

Candidate Starts for Koella_89:

(18, 49644), (20, 49665), (23, 49686), (24, 49716), (Start: 99 @50055 has 35 MA's), (112, 50100), (122, 50118), (157, 50235),

Gene: Kubulix_8 Start: 3460, Stop: 3867, Start Num: 68

Candidate Starts for Kubulix_8:

(Start: 68 @3460 has 6 MA's), (85, 3511), (86, 3520), (118, 3607), (135, 3655), (150, 3721), (155, 3739), (160, 3757),

Gene: Kudefre_118 Start: 64805, Stop: 65071, Start Num: 102

Candidate Starts for Kudefre_118:

(59, 64688), (Start: 102 @64805 has 6 MA's), (161, 64979), (170, 65060),

Gene: Lambo_93 Start: 64770, Stop: 65072, Start Num: 79

Candidate Starts for Lambo_93:

(Start: 71 @64743 has 2 MA's), (Start: 74 @64752 has 1 MA's), (77, 64761), (Start: 79 @64770 has 15 MA's), (Start: 101 @64818 has 1 MA's), (157, 64971), (165, 64995),

Gene: LastJedi_87 Start: 51112, Stop: 51393, Start Num: 99

Candidate Starts for LastJedi_87:

(18, 50701), (20, 50722), (23, 50743), (24, 50773), (Start: 99 @51112 has 35 MA's), (112, 51157), (122, 51175), (157, 51292),

Gene: Latretium_99 Start: 54158, Stop: 54439, Start Num: 99

Candidate Starts for Latretium_99:

(18, 53747), (20, 53768), (23, 53789), (24, 53819), (Start: 99 @54158 has 35 MA's), (112, 54203), (122, 54221), (157, 54338),

Gene: LilMoolah_99 Start: 54092, Stop: 54373, Start Num: 99

Candidate Starts for LilMoolah_99:

(18, 53681), (20, 53702), (23, 53723), (24, 53753), (Start: 99 @54092 has 35 MA's), (112, 54137), (122, 54155), (157, 54272),

Gene: Lizziana_97 Start: 54360, Stop: 54641, Start Num: 99

Candidate Starts for Lizziana_97:

(18, 53949), (20, 53970), (23, 53991), (24, 54021), (Start: 99 @54360 has 35 MA's), (112, 54405), (122, 54423), (157, 54540),

Gene: LordFarquaad_57 Start: 39016, Stop: 39396, Start Num: 69

Candidate Starts for LordFarquaad_57:

(Start: 69 @39016 has 3 MA's), (88, 39070), (135, 39199), (144, 39235), (150, 39262), (151, 39265), (160, 39295), (165, 39313), (167, 39325), (171, 39382),

Gene: Magsby_55 Start: 36284, Stop: 36682, Start Num: 60

Candidate Starts for Magsby_55:

(42, 36194), (49, 36230), (Start: 60 @36284 has 4 MA's), (117, 36437), (119, 36440), (127, 36467), (157, 36578), (160, 36584), (171, 36671),

Gene: Manatee_11 Start: 6673, Stop: 6987, Start Num: 83

Candidate Starts for Manatee_11:

(Start: 83 @6673 has 19 MA's), (Start: 101 @6712 has 1 MA's), (107, 6721), (133, 6790), (151, 6865), (167, 6925),

Gene: Maravista_93 Start: 55020, Stop: 55301, Start Num: 99

Candidate Starts for Maravista_93:

(18, 54609), (20, 54630), (23, 54651), (24, 54681), (Start: 99 @55020 has 35 MA's), (112, 55065), (122, 55083), (157, 55200),

Gene: Marcie_61 Start: 38811, Stop: 38491, Start Num: 79

Candidate Starts for Marcie_61:

(70, 38841), (Start: 78 @38814 has 1 MA's), (Start: 79 @38811 has 15 MA's), (Start: 101 @38760 has 1 MA's), (120, 38712), (130, 38682), (147, 38637), (157, 38598), (164, 38577), (167, 38562),

Gene: Martik_95 Start: 54823, Stop: 55104, Start Num: 99

Candidate Starts for Martik_95:

(18, 54412), (20, 54433), (23, 54454), (24, 54484), (Start: 99 @54823 has 35 MA's), (112, 54868), (122, 54886), (157, 55003),

Gene: Mask_58 Start: 48446, Stop: 48838, Start Num: 64

Candidate Starts for Mask_58:

(54, 48416), (Start: 64 @48446 has 2 MA's), (Start: 78 @48494 has 1 MA's), (117, 48593), (119, 48596), (127, 48623), (157, 48734), (160, 48740),

Gene: Mattes_97 Start: 54029, Stop: 54310, Start Num: 99

Candidate Starts for Mattes_97:

(18, 53618), (20, 53639), (23, 53660), (24, 53690), (Start: 99 @54029 has 35 MA's), (112, 54074), (122, 54092), (157, 54209), (167, 54245),

Gene: McGuire_11 Start: 6718, Stop: 7032, Start Num: 83

Candidate Starts for McGuire_11:

(Start: 83 @6718 has 19 MA's), (Start: 101 @6757 has 1 MA's), (107, 6766), (133, 6835), (151, 6910), (167, 6970),

Gene: MellowYellow_8 Start: 3065, Stop: 3472, Start Num: 68

Candidate Starts for MellowYellow_8:

(Start: 68 @3065 has 6 MA's), (85, 3116), (86, 3125), (118, 3212), (135, 3260), (150, 3326), (155, 3344), (160, 3362),

Gene: Minnie_91 Start: 54441, Stop: 54722, Start Num: 99

Candidate Starts for Minnie_91:

(18, 54030), (20, 54051), (23, 54072), (24, 54102), (Start: 99 @54441 has 35 MA's), (112, 54486), (122, 54504), (157, 54621),

Gene: MortyNRick_62 Start: 41583, Stop: 41870, Start Num: 96

Candidate Starts for MortyNRick_62:

(26, 41283), (32, 41334), (34, 41346), (40, 41370), (56, 41457), (89, 41571), (Start: 96 @41583 has 3 MA's), (112, 41628), (141, 41700), (162, 41778), (167, 41802), (171, 41859),

Gene: Mossy_1 Start: 220, Stop: 549, Start Num: 79

Candidate Starts for Mossy_1:

(Start: 79 @220 has 15 MA's), (Start: 101 @268 has 1 MA's), (129, 352), (150, 427), (157, 454), (162, 466),

Gene: Myrna_235 Start: 137260, Stop: 137607, Start Num: 79

Candidate Starts for Myrna_235:

(13, 136774), (19, 136918), (25, 136978), (39, 137095), (Start: 79 @137260 has 15 MA's), (Start: 101 @137311 has 1 MA's), (157, 137461), (160, 137467), (163, 137476), (165, 137485), (177, 137599),

Gene: Naira_11 Start: 6952, Stop: 7266, Start Num: 83

Candidate Starts for Naira_11:

(Start: 83 @6952 has 19 MA's), (Start: 101 @6991 has 1 MA's), (133, 7069), (144, 7114),

Gene: Nina_52 Start: 37854, Stop: 37525, Start Num: 83

Candidate Starts for Nina_52:

(Start: 83 @37854 has 19 MA's), (Start: 101 @37815 has 1 MA's), (134, 37722), (150, 37653),

Gene: Nivrat_96 Start: 53965, Stop: 54246, Start Num: 99

Candidate Starts for Nivrat_96:

(18, 53554), (20, 53575), (23, 53596), (24, 53626), (Start: 99 @53965 has 35 MA's), (112, 54010), (122, 54028), (157, 54145),

Gene: NormanBulbieJr_94 Start: 54069, Stop: 54350, Start Num: 99
Candidate Starts for NormanBulbieJr_94:
(18, 53658), (20, 53679), (23, 53700), (24, 53730), (Start: 99 @54069 has 35 MA's), (112, 54114),
(122, 54132), (157, 54249),

Gene: Octobien14_114 Start: 63585, Stop: 63860, Start Num: 102
Candidate Starts for Octobien14_114:
(59, 63468), (Start: 102 @63585 has 6 MA's), (123, 63651), (170, 63849),

Gene: Odyssey395_10 Start: 3459, Stop: 3866, Start Num: 68
Candidate Starts for Odyssey395_10:
(Start: 68 @3459 has 6 MA's), (85, 3510), (86, 3519), (118, 3606), (135, 3654), (150, 3720), (155,
3738), (160, 3756),

Gene: Ollypop_10 Start: 4172, Stop: 4435, Start Num: 99
Candidate Starts for Ollypop_10:
(Start: 99 @4172 has 35 MA's), (122, 4235), (129, 4256), (146, 4292), (157, 4331),

Gene: Ollypop_7 Start: 3116, Stop: 3523, Start Num: 68
Candidate Starts for Ollypop_7:
(50, 3041), (58, 3092), (Start: 68 @3116 has 6 MA's), (86, 3176), (Start: 100 @3206 has 1 MA's), (135,
3311), (155, 3395), (160, 3413),

Gene: OlympiaSaint_100 Start: 54235, Stop: 54516, Start Num: 99
Candidate Starts for OlympiaSaint_100:
(18, 53824), (20, 53845), (23, 53866), (24, 53896), (Start: 99 @54235 has 35 MA's), (112, 54280),
(122, 54298), (157, 54415),

Gene: OneinaGillian_56 Start: 37823, Stop: 37530, Start Num: 79
Candidate Starts for OneinaGillian_56:
(70, 37853), (Start: 78 @37826 has 1 MA's), (Start: 79 @37823 has 15 MA's), (84, 37811), (Start: 101
@37772 has 1 MA's), (Start: 102 @37769 has 6 MA's), (Start: 114 @37736 has 1 MA's), (120, 37724),
(128, 37715), (157, 37637), (164, 37616), (167, 37601),

Gene: Paella_133 Start: 71406, Stop: 71771, Start Num: 87
Candidate Starts for Paella_133:
(Start: 64 @71328 has 2 MA's), (Start: 87 @71406 has 2 MA's), (131, 71517), (152, 71592), (165,
71643),

Gene: Paella_124 Start: 68080, Stop: 68388, Start Num: 108
Candidate Starts for Paella_124:
(Start: 108 @68080 has 2 MA's), (123, 68125), (137, 68164), (160, 68260),

Gene: ParvusTarda_93 Start: 64024, Stop: 64359, Start Num: 71
Candidate Starts for ParvusTarda_93:
(Start: 71 @64024 has 2 MA's), (Start: 74 @64033 has 1 MA's), (77, 64042), (Start: 79 @64051 has 15
MA's), (Start: 101 @64099 has 1 MA's), (157, 64252), (165, 64276), (171, 64345),

Gene: PauloDiaboli_215 Start: 113653, Stop: 113336, Start Num: 91
Candidate Starts for PauloDiaboli_215:
(Start: 91 @113653 has 3 MA's), (138, 113536), (148, 113497), (157, 113458), (168, 113401), (174,
113341),

Gene: Peas_65 Start: 41993, Stop: 42271, Start Num: 95
Candidate Starts for Peas_65:
(14, 41477), (36, 41768), (63, 41897), (Start: 95 @41993 has 4 MA's), (156, 42167), (157, 42170),
(167, 42206), (170, 42260),

Gene: Pepe25_55 Start: 37387, Stop: 37064, Start Num: 79
Candidate Starts for Pepe25_55:
(70, 37417), (Start: 78 @37390 has 1 MA's), (Start: 79 @37387 has 15 MA's), (84, 37375), (90, 37351),
(Start: 101 @37336 has 1 MA's), (Start: 114 @37300 has 1 MA's), (120, 37288), (130, 37258), (147,
37213), (157, 37174),

Gene: Perkunas_2 Start: 448, Stop: 780, Start Num: 79
Candidate Starts for Perkunas_2:
(Start: 79 @448 has 15 MA's), (106, 514), (157, 682), (165, 706),

Gene: Phabba_246 Start: 137077, Stop: 137433, Start Num: 79
Candidate Starts for Phabba_246:
(22, 136756), (35, 136897), (Start: 79 @137077 has 15 MA's), (Start: 101 @137128 has 1 MA's), (133,
137203), (145, 137236), (146, 137245), (157, 137287), (160, 137293), (163, 137302), (165, 137311),

Gene: Philus_98 Start: 54977, Stop: 55258, Start Num: 99
Candidate Starts for Philus_98:
(18, 54566), (20, 54587), (23, 54608), (24, 54638), (Start: 99 @54977 has 35 MA's), (112, 55022),
(122, 55040), (157, 55157),

Gene: PinkPlastic_9 Start: 6480, Stop: 6794, Start Num: 83
Candidate Starts for PinkPlastic_9:
(Start: 83 @6480 has 19 MA's), (Start: 101 @6519 has 1 MA's), (107, 6528), (133, 6597), (151, 6672),
(167, 6732),

Gene: Pipp_48 Start: 34437, Stop: 34712, Start Num: 97
Candidate Starts for Pipp_48:
(Start: 97 @34437 has 3 MA's), (158, 34608), (165, 34632),

Gene: Pippy_94 Start: 52340, Stop: 52621, Start Num: 99
Candidate Starts for Pippy_94:
(18, 51929), (20, 51950), (23, 51971), (24, 52001), (Start: 99 @52340 has 35 MA's), (112, 52385),
(122, 52403), (157, 52520),

Gene: Pipsqueaks_56 Start: 36265, Stop: 36663, Start Num: 60
Candidate Starts for Pipsqueaks_56:
(42, 36175), (49, 36211), (Start: 60 @36265 has 4 MA's), (117, 36418), (119, 36421), (127, 36448),
(157, 36559), (160, 36565), (171, 36652),

Gene: Pointis_8 Start: 3460, Stop: 3867, Start Num: 68
Candidate Starts for Pointis_8:
(Start: 68 @3460 has 6 MA's), (85, 3511), (86, 3520), (118, 3607), (135, 3655), (150, 3721), (155,
3739), (160, 3757),

Gene: Priscilla_97 Start: 54167, Stop: 54448, Start Num: 99
Candidate Starts for Priscilla_97:
(18, 53756), (20, 53777), (23, 53798), (24, 53828), (Start: 99 @54167 has 35 MA's), (112, 54212),
(122, 54230), (157, 54347),

Gene: Pumpernickel_196 Start: 112347, Stop: 112042, Start Num: 91

Candidate Starts for Pumpernickel_196:

(Start: 91 @112347 has 3 MA's), (94, 112341), (125, 112272), (159, 112170), (173, 112059),

Gene: Pureglobe5_10 Start: 3473, Stop: 3880, Start Num: 68

Candidate Starts for Pureglobe5_10:

(Start: 68 @3473 has 6 MA's), (85, 3524), (86, 3533), (118, 3620), (135, 3668), (150, 3734), (155, 3752), (160, 3770),

Gene: Qui_124 Start: 68080, Stop: 68388, Start Num: 108

Candidate Starts for Qui_124:

(Start: 108 @68080 has 2 MA's), (123, 68125), (137, 68164), (160, 68260),

Gene: Qui_133 Start: 71406, Stop: 71771, Start Num: 87

Candidate Starts for Qui_133:

(Start: 64 @71328 has 2 MA's), (Start: 87 @71406 has 2 MA's), (131, 71517), (152, 71592), (165, 71643),

Gene: Rajelicia_10 Start: 6620, Stop: 6934, Start Num: 83

Candidate Starts for Rajelicia_10:

(Start: 83 @6620 has 19 MA's), (Start: 101 @6659 has 1 MA's), (107, 6668), (133, 6737), (151, 6812), (167, 6872),

Gene: Ranunculus_6 Start: 3041, Stop: 3424, Start Num: 68

Candidate Starts for Ranunculus_6:

(Start: 68 @3041 has 6 MA's), (135, 3236), (151, 3305), (155, 3320), (159, 3335), (160, 3338),

Gene: RazzB_6 Start: 2835, Stop: 3242, Start Num: 68

Candidate Starts for RazzB_6:

(Start: 68 @2835 has 6 MA's), (85, 2886), (86, 2895), (118, 2982), (135, 3030), (150, 3096), (155, 3114), (160, 3132),

Gene: RedBaron_55 Start: 37907, Stop: 37578, Start Num: 83

Candidate Starts for RedBaron_55:

(Start: 83 @37907 has 19 MA's), (Start: 101 @37868 has 1 MA's), (134, 37775), (150, 37706),

Gene: Rizwana_7 Start: 3422, Stop: 3844, Start Num: 72

Candidate Starts for Rizwana_7:

(53, 3356), (Start: 72 @3422 has 4 MA's), (Start: 82 @3458 has 1 MA's), (Start: 99 @3500 has 35 MA's), (118, 3560), (159, 3707), (160, 3710),

Gene: RobinRose_58 Start: 38338, Stop: 38039, Start Num: 78

Candidate Starts for RobinRose_58:

(70, 38365), (Start: 78 @38338 has 1 MA's), (Start: 79 @38335 has 15 MA's), (84, 38323), (90, 38299), (Start: 101 @38284 has 1 MA's), (120, 38236), (128, 38227), (146, 38191), (157, 38149), (164, 38128),

Gene: Rockabye_69 Start: 29857, Stop: 30210, Start Num: 76

Candidate Starts for Rockabye_69:

(76, 29857), (151, 30079),

Gene: Romm_58 Start: 38320, Stop: 38039, Start Num: 84

Candidate Starts for Romm_58:

(70, 38362), (Start: 78 @38335 has 1 MA's), (Start: 79 @38332 has 15 MA's), (84, 38320), (Start: 101 @38281 has 1 MA's), (Start: 102 @38278 has 6 MA's), (Start: 114 @38245 has 1 MA's), (120, 38233), (128, 38224), (157, 38146), (164, 38125), (167, 38110),

Gene: SJReid_73 Start: 30780, Stop: 31085, Start Num: 76

Candidate Starts for SJReid_73:

(76, 30780),

Gene: Saal_94 Start: 53731, Stop: 54012, Start Num: 99

Candidate Starts for Saal_94:

(18, 53320), (20, 53341), (23, 53362), (24, 53392), (Start: 99 @53731 has 35 MA's), (112, 53776), (122, 53794), (157, 53911),

Gene: SadLad_63 Start: 46437, Stop: 46174, Start Num: 102

Candidate Starts for SadLad_63:

(Start: 102 @46437 has 6 MA's), (110, 46410), (121, 46389), (157, 46278), (167, 46242), (171, 46185),

Gene: Sandalphon_96 Start: 54715, Stop: 55005, Start Num: 93

Candidate Starts for Sandalphon_96:

(Start: 93 @54715 has 1 MA's), (112, 54769), (122, 54787), (157, 54904),

Gene: ScoobyDoobyDoo_233 Start: 134075, Stop: 134443, Start Num: 79

Candidate Starts for ScoobyDoobyDoo_233:

(Start: 79 @134075 has 15 MA's), (142, 134234), (160, 134303), (165, 134321), (170, 134387), (174, 134414),

Gene: Seabiscuit_12 Start: 6693, Stop: 7034, Start Num: 74

Candidate Starts for Seabiscuit_12:

(Start: 74 @6693 has 1 MA's), (Start: 83 @6720 has 19 MA's), (Start: 101 @6759 has 1 MA's), (107, 6768), (133, 6837), (151, 6912), (167, 6972),

Gene: Sephiroth_114 Start: 64560, Stop: 64826, Start Num: 102

Candidate Starts for Sephiroth_114:

(59, 64443), (Start: 102 @64560 has 6 MA's), (161, 64734), (170, 64815),

Gene: ShiLan_99 Start: 55748, Stop: 56029, Start Num: 99

Candidate Starts for ShiLan_99:

(18, 55337), (20, 55358), (23, 55379), (24, 55409), (Start: 99 @55748 has 35 MA's), (112, 55793), (122, 55811), (157, 55928), (167, 55964),

Gene: Shocker_3 Start: 902, Stop: 1168, Start Num: 100

Candidate Starts for Shocker_3:

(Start: 100 @902 has 1 MA's), (121, 956), (157, 1067),

Gene: ShowerHandel_97 Start: 53013, Stop: 53294, Start Num: 99

Candidate Starts for ShowerHandel_97:

(18, 52602), (20, 52623), (23, 52644), (24, 52674), (Start: 99 @53013 has 35 MA's), (112, 53058), (122, 53076), (157, 53193),

Gene: SilentRX_7 Start: 2575, Stop: 2988, Start Num: 72

Candidate Starts for SilentRX_7:

(Start: 72 @2575 has 4 MA's), (103, 2665), (136, 2764), (140, 2782), (166, 2878),

Gene: Slagathor_11 Start: 6591, Stop: 6905, Start Num: 83
Candidate Starts for Slagathor_11:
(Start: 83 @6591 has 19 MA's), (Start: 101 @6630 has 1 MA's), (107, 6639), (133, 6708), (151, 6783),
(167, 6843),

Gene: SoilAssassin_55 Start: 39034, Stop: 39414, Start Num: 69
Candidate Starts for SoilAssassin_55:
(Start: 69 @39034 has 3 MA's), (88, 39088), (135, 39217), (144, 39253), (150, 39280), (151, 39283),
(160, 39313), (165, 39331), (167, 39343), (171, 39400),

Gene: SpeedDemon_540 Start: 45518, Stop: 45787, Start Num: 97
Candidate Starts for SpeedDemon_540:
(Start: 97 @45518 has 3 MA's), (112, 45566), (149, 45662), (157, 45686),

Gene: Spoonbill_96 Start: 51661, Stop: 51942, Start Num: 99
Candidate Starts for Spoonbill_96:
(18, 51250), (20, 51271), (23, 51292), (24, 51322), (Start: 99 @51661 has 35 MA's), (112, 51706),
(122, 51724), (157, 51841),

Gene: Squee_11 Start: 7115, Stop: 7429, Start Num: 83
Candidate Starts for Squee_11:
(Start: 83 @7115 has 19 MA's), (Start: 101 @7154 has 1 MA's), (133, 7232), (144, 7277),

Gene: Squiddly_103 Start: 56800, Stop: 57090, Start Num: 96
Candidate Starts for Squiddly_103:
(45, 56620), (46, 56623), (61, 56704), (Start: 82 @56770 has 1 MA's), (Start: 96 @56800 has 3 MA's),
(139, 56917), (153, 56971), (167, 57028),

Gene: StAugustine_144 Start: 85407, Stop: 85078, Start Num: 82
Candidate Starts for StAugustine_144:
(Start: 82 @85407 has 1 MA's), (104, 85350), (146, 85212), (154, 85188), (166, 85140),

Gene: Sunfish_12 Start: 3876, Stop: 4208, Start Num: 83
Candidate Starts for Sunfish_12:
(32, 3663), (Start: 83 @3876 has 19 MA's), (105, 3927), (111, 3951), (132, 4002), (150, 4071), (167,
4134),

Gene: SwagPigglett_98 Start: 54867, Stop: 55148, Start Num: 99
Candidate Starts for SwagPigglett_98:
(18, 54456), (20, 54477), (23, 54498), (24, 54528), (Start: 99 @54867 has 35 MA's), (112, 54912),
(122, 54930), (157, 55047),

Gene: Switzer_11 Start: 6599, Stop: 6913, Start Num: 83
Candidate Starts for Switzer_11:
(Start: 74 @6572 has 1 MA's), (Start: 83 @6599 has 19 MA's), (Start: 101 @6638 has 1 MA's), (107,
6647), (133, 6716), (151, 6791), (167, 6851),

Gene: Syleon_119 Start: 65342, Stop: 65608, Start Num: 102
Candidate Starts for Syleon_119:
(59, 65225), (Start: 102 @65342 has 6 MA's), (161, 65516), (170, 65597),

Gene: Tempo_56 Start: 38215, Stop: 37919, Start Num: 79
Candidate Starts for Tempo_56:

(70, 38245), (Start: 78 @38218 has 1 MA's), (Start: 79 @38215 has 15 MA's), (84, 38203), (90, 38179), (Start: 101 @38164 has 1 MA's), (120, 38116), (128, 38107), (146, 38071), (157, 38029), (164, 38008),

Gene: Tortellini_63 Start: 43457, Stop: 43750, Start Num: 92

Candidate Starts for Tortellini_63:

(26, 43202), (28, 43223), (41, 43301), (55, 43364), (65, 43400), (Start: 92 @43457 has 1 MA's), (112, 43511), (146, 43607), (157, 43646), (165, 43670), (171, 43739),

Gene: U2_10 Start: 6601, Stop: 6915, Start Num: 83

Candidate Starts for U2_10:

(Start: 74 @6574 has 1 MA's), (Start: 83 @6601 has 19 MA's), (Start: 101 @6640 has 1 MA's), (107, 6649), (133, 6718), (151, 6793), (167, 6853),

Gene: Untouchable_2 Start: 479, Stop: 808, Start Num: 79

Candidate Starts for Untouchable_2:

(Start: 79 @479 has 15 MA's), (106, 545), (150, 686), (157, 713), (162, 725),

Gene: Vivum_98 Start: 55102, Stop: 55383, Start Num: 99

Candidate Starts for Vivum_98:

(18, 54691), (20, 54712), (23, 54733), (24, 54763), (Start: 99 @55102 has 35 MA's), (112, 55147), (122, 55165), (157, 55282),

Gene: Vordorf_53 Start: 39065, Stop: 39475, Start Num: 57

Candidate Starts for Vordorf_53:

(12, 38624), (20, 38795), (33, 38936), (48, 39017), (51, 39023), (57, 39065), (Start: 78 @39131 has 1 MA's), (117, 39221), (125, 39242), (138, 39278),

Gene: Whouxphf_100 Start: 54173, Stop: 54454, Start Num: 99

Candidate Starts for Whouxphf_100:

(18, 53762), (20, 53783), (23, 53804), (24, 53834), (Start: 99 @54173 has 35 MA's), (112, 54218), (122, 54236), (157, 54353),

Gene: Wojtek_85 Start: 64679, Stop: 65014, Start Num: 71

Candidate Starts for Wojtek_85:

(Start: 71 @64679 has 2 MA's), (Start: 74 @64688 has 1 MA's), (77, 64697), (Start: 79 @64706 has 15 MA's), (Start: 101 @64754 has 1 MA's), (157, 64907), (165, 64931), (171, 65000),

Gene: Xerxes_55 Start: 36284, Stop: 36682, Start Num: 60

Candidate Starts for Xerxes_55:

(42, 36194), (49, 36230), (Start: 60 @36284 has 4 MA's), (117, 36437), (119, 36440), (127, 36467), (157, 36578), (160, 36584), (171, 36671),

Gene: Yorick_92 Start: 54408, Stop: 54689, Start Num: 99

Candidate Starts for Yorick_92:

(18, 53997), (20, 54018), (23, 54039), (24, 54069), (Start: 99 @54408 has 35 MA's), (112, 54453), (122, 54471), (157, 54588),

Gene: Yvonnetastic_136 Start: 75890, Stop: 76258, Start Num: 73

Candidate Starts for Yvonnetastic_136:

(Start: 73 @75890 has 2 MA's), (81, 75920), (86, 75935), (88, 75941), (Start: 100 @75965 has 1 MA's), (115, 76016), (156, 76136), (157, 76139), (165, 76163), (172, 76244),

Gene: Zizzle_99 Start: 55058, Stop: 55339, Start Num: 99

Candidate Starts for Zizzle_99:

(18, 54647), (20, 54668), (23, 54689), (24, 54719), (Start: 99 @55058 has 35 MA's), (112, 55103),
(122, 55121), (157, 55238), (167, 55274),