



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 283511 Report

This analysis was run 02/23/26 on database version 636.

Pham number 283511 has 189 members, 35 are drafts.

Phages represented in each track:

- Track 1 : Briton15_12, Ichabod_11
- Track 2 : Anglerfish_11, Arcanine_11, Rajelicia_10, Slagathor_11, Dynamix_11, PinkPlastic_9, Manatee_11, DreamCatcher_12, McGuire_11
- Track 3 : KSSJEB_10, U2_10, Switzer_11
- Track 4 : Squee_11, Naira_11, BeesKnees_11, Atkinbua_11, Fenn_11
- Track 5 : Seabiscuit_12
- Track 6 : Anon_48
- Track 7 : Dori_58, Mask_58
- Track 8 : StAugustine_144
- Track 9 : Causa_146
- Track 10 : Ranunculus_6
- Track 11 : Rizwana_7
- Track 12 : Pureglobe5_10, Pointis_8, Beagle_10, Kubulix_9, PhuzzTulsa_6, Odyssey395_10, DogYard_8, RazzB_7, BetaFish_8, MellowYellow_8, Popstraw_8, Forrestell_8
- Track 13 : Nikan_9, Ren19_8
- Track 14 : Ollypop_11
- Track 15 : Ollypop_7
- Track 16 : BruhMoment_8
- Track 17 : AWGoat_6
- Track 18 : SilentRX_7
- Track 19 : SeresaTree_71, Faust_71
- Track 20 : Blueeyedbeauty_69
- Track 21 : Sham_67
- Track 22 : Annadreamy_67, Limpid_66
- Track 23 : TunaTartare_69
- Track 24 : Beuffert_67
- Track 25 : G4_46
- Track 26 : Greely_244
- Track 27 : Phabba_246
- Track 28 : ScoobyDoobyDoo_233
- Track 29 : Myrna_235
- Track 30 : HomeFry_79
- Track 31 : RedBaron_55, Nina_52
- Track 32 : Pipp_48
- Track 33 : LordFarquaad_57, Attis_55, SoilAssassin_55
- Track 34 : Clown_82

- Track 35 : Yvonnetastic_136, JonJames_139
- Track 36 : Cardigan_143
- Track 37 : Crocheter_2, CWormy_2, ArtetaBall_2, Dialga_2, Untouchable_2
- Track 38 : Perkunas_2
- Track 39 : Mossy_1
- Track 40 : Blanky_1
- Track 41 : Hortihabitatio_2
- Track 42 : Bantam_53
- Track 43 : SpeedDemon_540
- Track 44 : DatBoi_51
- Track 45 : MortyNRick_62
- Track 46 : BearBQ_64
- Track 47 : Squiddly_103
- Track 48 : GMA2_84
- Track 49 : Vordorf_53
- Track 50 : Sephiroth_114, Kudefre_118, Syleon_119
- Track 51 : Octobien14_114
- Track 52 : Lambo_93
- Track 53 : ParvusTarda_93, Wojtek_85
- Track 54 : Kelcole_54, KillerQueen_57, OneinaGillian_56
- Track 55 : Fransoyer_60, SadLad_63
- Track 56 : Marcie_61
- Track 57 : Pepe25_55
- Track 58 : RobinRose_58
- Track 59 : Tempo_56
- Track 60 : CandC_55
- Track 61 : Romm_58
- Track 62 : ShowerHandel_97, Gorge_95, Brocalys_88, Lizziana_97, Martik_95, LastJedi_87, Clifton_88, Nivrat_96, Crumble_91, LilMoolah_99, ByChance_87, Pippy_94, Yorick_92, Philus_98, James_100, Jarcob_99, Burwell21_90, Cabrinians_93, Vivum_98, Spoonbill_96, Whouxphf_100, FreddyB_106, Minnie_91, Maravista_93, NormanBulbieJr_94, Saal_94, OlympiaSaint_100, Blexus_93, Koella_89, Latretium_99, SwagPiggett_98, Priscilla_97
- Track 63 : Jennelsea_93, BobaPhett_98, ShiLan_99, Zizzle_99, Mattes_97
- Track 64 : Sandalphon_96
- Track 65 : Peas_65
- Track 66 : Constance_64
- Track 67 : Rockabye_69
- Track 68 : SJReid_70
- Track 69 : Elver_133, Paella_133, Gandionco_129, JeNeSaisPas_127, Qui_133, Kureo_130, Marianna39_130
- Track 70 : Marianna39_122, Gandionco_121, JeNeSaisPas_119, Kureo_122
- Track 71 : Qui_124, Paella_124
- Track 72 : Elver_124
- Track 73 : BellaJr_84
- Track 74 : PauloDiaboli_215
- Track 75 : A3Wally_215
- Track 76 : Dodo_215
- Track 77 : Pumpernickel_196
- Track 78 : DrLupo_104
- Track 79 : Bobby_171
- Track 80 : Carcharodon_55, Phloss_53, Parmesanjohn_55, Smurph_55, Schnauzer_56

- Track 81 : EGUnicorn_51, Gex_56, Magsby_55, Xerxes_55, Pipsqueaks_56
- Track 82 : Tortellini_63
- Track 83 : Stellammi_137
- Track 84 : Argie_6, GodPhather_6
- Track 85 : Cantare_94
- Track 86 : ERHickory_13
- Track 87 : Sunfish_12
- Track 88 : GMA4_42
- Track 89 : Shocker_3
- Track 90 : BigAnti_4
- Track 91 : 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 91, it was called in 39 of the 154 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- BearBQ_64, Blexus_93, BobaPhett_98, Brocalys_88, Burwell21_90, ByChance_87, Cabrinians_93, Clifton_88, Crumble_91, FreddyB_106, G4_46, Gorge_95, James_100, Jarcob_99, Jennelsea_93, Koella_89, LastJedi_87, Latretium_99, LilMoolah_99, Lizziana_97, Maravista_93, Martik_95, Mattes_97, Minnie_91, MortyNRick_62, Nikan_9, Nivrat_96, NormanBulbieJr_94, Ollypop_11, OlympiaSaint_100, Philus_98, Pippy_94, Priscilla_97, Ren19_8, Saal_94, ShiLan_99, ShowerHandel_97, Spoonbill_96, SwagPigglett_98, Vivum_98, Whouxphf_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, Annadreamy_67, Anon_48, Arcanine_11, Argie_6, ArtetaBall_2, Atkinbua_11, Attis_55, Bantam_53, Beagle_10, BeesKnees_11, BellaJr_84, BetaFish_8, Beuffert_67, BigAnti_4, Blanky_1, Blueeyedbeauty_69, Bobby_171, Briton15_12, BruhMoment_8, CWormy_2, CandC_55, Cantare_94, Carcharodon_55, Cardigan_143, Causa_146, Clown_82, Constance_64, Crocheter_2, DatBoi_51, Dialga_2, Dodo_215, DogYard_8, Dori_58, DrLupo_104, DreamCatcher_12, Dynamix_11, EGUnicorn_51, ERHickory_13, Elver_124, Elver_133, Faust_71, Fenn_11, Forrestell_8, Fransoyer_60, GMA2_84, GMA4_42, Gandionco_121, Gandionco_129, Gex_56, GodPhather_6, Greely_244, HomeFry_79, Hortihabitatio_2, Ichabod_11, JeNeSaisPas_119, JeNeSaisPas_127, JeanGrey_20, JonJames_139, KSSJEB_10, Kelcole_54, KillerQueen_57, Kubulix_9, Kudrefre_118, Kureo_122, Kureo_130, Lambo_93, Limpid_66, LordFarquaad_57, Magsby_55, Manatee_11, Marcie_61, Marianna39_122, Marianna39_130, Mask_58, McGuire_11, MellowYellow_8, Mossy_1, Myrna_235, Naira_11, Nina_52, Octobien14_114, Odyssey395_10, Ollypop_7, OneinaGillian_56, Paella_124, Paella_133, Parmesanjohn_55, ParvusTarda_93, PauloDiaboli_215, Peas_65, Pepe25_55, Perkunas_2, Phabba_246, Phloss_53, PhuzzTulsa_6, PinkPlastic_9, Pipp_48, Pipsqueaks_56, Pointis_8, Popstraw_8, Pumpernickel_196, Pureglobe5_10, Qui_124, Qui_133, Rajelicia_10, Ranunculus_6, RazzB_7, RedBaron_55,

RobinRose_58, Rockabye_69, Romm_58, SJReid_70, SadLad_63, Sandalphon_96, Schnauzer_56, ScoobyDoobyDoo_233, Seabiscuit_12, Sephiroth_114, SeresaTree_71, Sham_67, Shocker_3, SilentRX_7, Slagathor_11, Smurph_55, SoilAssassin_55, SpeedDemon_540, Squee_11, Squiddly_103, StAugustine_144, Stellammi_137, Sunfish_12, Switzer_11, Syleon_119, Tempo_56, Tortellini_63, TunaTartare_69, U2_10, Untouchable_2, Vordorf_53, Wojtek_85, Xerxes_55, Yvonnestic_136,

Summary by start number:

Start 49:

- Found in 10 of 189 (5.3%) of genes in pham
- Manual Annotations of this start: 5 of 154
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Carcharodon_55 (N), Parmesanjohn_55 (N), Phloss_53 (N), Schnauzer_56 (N), Smurph_55 (N),

Start 62:

- Found in 2 of 189 (1.1%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: GMA4_42 (singleton), Vordorf_53 (DT),

Start 64:

- Found in 10 of 189 (5.3%) of genes in pham
- Manual Annotations of this start: 5 of 154
- Called 50.0% of time when present
- Phage (with cluster) where this start called: EGUnicorn_51 (N), Gex_56 (N), Magsby_55 (N), Pipsqueaks_56 (N), Xerxes_55 (N),

Start 65:

- Found in 10 of 189 (5.3%) of genes in pham
- Manual Annotations of this start: 9 of 154
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Annadreamy_67 (BK1), Beuffert_67 (BK1), Blueeyedbeauty_69 (BK1), Dori_58 (AD), Faust_71 (BK1), Limpid_66 (BK1), Mask_58 (AD), SeresaTree_71 (BK1), Sham_67 (BK1), TunaTartare_69 (BK1),

Start 67:

- Found in 2 of 189 (1.1%) of genes in pham
- No Manual Annotations of this start.
- Called 50.0% of time when present
- Phage (with cluster) where this start called: HomeFry_79 (CR5),

Start 68:

- Found in 14 of 189 (7.4%) of genes in pham
- Manual Annotations of this start: 11 of 154
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Beagle_10 (AP2), BetaFish_8 (AP2), DogYard_8 (AP2), Forrestell_8 (AP2), Kubulix_9 (AP2), MellowYellow_8 (AP2), Odyssey395_10 (AP2), Ollypop_7 (AP2), PhuzzTulsa_6 (AP2), Pointis_8 (AP2), Popstraw_8 (AP2), Pureglobe5_10 (AP2), Ranunculus_6 (AP), RazzB_7 (AP2),

Start 70:

- Found in 3 of 189 (1.6%) of genes in pham
- Manual Annotations of this start: 3 of 154
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Attis_55 (CZ2), LordFarquaad_57 (CZ2), SoilAssassin_55 (CZ2),

Start 71:

- Found in 2 of 189 (1.1%) of genes in pham
- Manual Annotations of this start: 2 of 154
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Causa_146 (AI), StAugustine_144 (AI),

Start 74:

- Found in 4 of 189 (2.1%) of genes in pham
- Manual Annotations of this start: 4 of 154
- 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 75:

- Found in 3 of 189 (1.6%) of genes in pham
- Manual Annotations of this start: 2 of 154
- Called 66.7% of time when present
- Phage (with cluster) where this start called: ParvusTarda_93 (DV), Wojtek_85 (DV),

Start 80:

- Found in 5 of 189 (2.6%) of genes in pham
- Manual Annotations of this start: 1 of 154
- Called 40.0% of time when present
- Phage (with cluster) where this start called: JeanGrey_20 (singleton), Seabiscuit_12 (A1),

Start 83:

- Found in 3 of 189 (1.6%) of genes in pham
- Manual Annotations of this start: 1 of 154
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Tortellini_63 (P2),

Start 84:

- Found in 19 of 189 (10.1%) of genes in pham
- Manual Annotations of this start: 6 of 154
- Called 57.9% of time when present
- Phage (with cluster) where this start called: ArtetaBall_2 (DJ), Blanky_1 (DJ), CWormy_2 (DJ), Crocheter_2 (DJ), Dialga_2 (DJ), GMA2_84 (DS), Hortihabitatio_2 (DJ), Mossy_1 (DJ), Perkunas_2 (DJ), RobinRose_58 (EG), Untouchable_2 (DJ),

Start 85:

- Found in 2 of 189 (1.1%) of genes in pham
- Manual Annotations of this start: 1 of 154
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Sandalphon_96 (F1),

Start 86:

- Found in 17 of 189 (9.0%) of genes in pham
- Manual Annotations of this start: 12 of 154
- Called 76.5% of time when present
- Phage (with cluster) where this start called: CandC_55 (EG), Cantare_94 (singleton), Greely_244 (C2), Kelcole_54 (EG), KillerQueen_57 (EG), Lambo_93 (DV), Marcie_61 (EG), Myrna_235 (C2), OneinaGillian_56 (EG), Pepe25_55 (EG), Phabba_246 (C2), ScoobyDoobyDoo_233 (C2), Tempo_56 (EG),

Start 88:

- Found in 4 of 189 (2.1%) of genes in pham
- Manual Annotations of this start: 3 of 154
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Anon_48 (A15), DatBoi_51 (DL), Pipp_48 (CV), Stellammi_137 (UNK),

Start 89:

- Found in 6 of 189 (3.2%) of genes in pham
- Manual Annotations of this start: 6 of 154
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Bantam_53 (DL), Clown_82 (DC2), Constance_64 (FA), Peas_65 (FA), SpeedDemon_540 (DL), Squiddly_103 (DN2),

Start 90:

- Found in 8 of 189 (4.2%) of genes in pham
- Manual Annotations of this start: 6 of 154
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Argie_6 (W), BellaJr_84 (FN), Briton15_12 (A1), Cardigan_143 (DD), GodPhather_6 (W), Ichabod_11 (A1), JonJames_139 (DD), Yvonnestic_136 (DD),

Start 91:

- Found in 44 of 189 (23.3%) of genes in pham
- Manual Annotations of this start: 39 of 154
- Called 97.7% of time when present
- Phage (with cluster) where this start called: BearBQ_64 (DN), 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), G4_46 (BW), Gorge_95 (F1), James_100 (F1), Jarcob_99 (F1), Jennelsea_93 (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), MortyNRick_62 (DN), Nikan_9 (AP2), Nivrat_96 (F1), NormanBulbieJr_94 (F1), Ollypop_11 (AP2), OlympiaSaint_100 (F1), Philus_98 (F1), Pippy_94 (F1), Priscilla_97 (F1), Ren19_8 (AP2), Saal_94 (F1), ShiLan_99 (F1), ShowerHandel_97 (F1), Spoonbill_96 (F1), SwagPiggett_98 (F1), Vivum_98 (F1), Whouxphf_100 (F1), Yorick_92 (F1), Zizzle_99 (F1),

Start 92:

- Found in 2 of 189 (1.1%) of genes in pham
- Manual Annotations of this start: 1 of 154
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Rockabye_69 (FC), SJReid_70 (FC),

Start 93:

- Found in 1 of 189 (0.5%) of genes in pham
- Manual Annotations of this start: 1 of 154
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Shocker_3 (singleton),

Start 94:

- Found in 45 of 189 (23.8%) of genes in pham
- Manual Annotations of this start: 20 of 154
- Called 48.9% of time when present
- Phage (with cluster) where this start called: Anglerfish_11 (A1), Arcanine_11 (A1), Atkinbua_11 (A1), BeesKnees_11 (A1), Bobby_171 (J), 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), Romm_58 (EG), Slagathor_11 (A1), Squee_11 (A1), Sunfish_12 (singleton), Switzer_11 (A1), U2_10 (A1),

Start 96:

- Found in 3 of 189 (1.6%) of genes in pham
- Manual Annotations of this start: 2 of 154
- Called 66.7% of time when present
- Phage (with cluster) where this start called: Fransoyer_60 (EG), SadLad_63 (EG),

Start 98:

- Found in 14 of 189 (7.4%) of genes in pham
- No Manual Annotations of this start.
- Called 7.1% of time when present
- Phage (with cluster) where this start called: BigAnti_4 (singleton),

Start 102:

- Found in 7 of 189 (3.7%) of genes in pham
- Manual Annotations of this start: 3 of 154
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Elver_133 (FK), Gandionco_129 (FK), JeNeSaisPas_127 (FK), Kureo_130 (FK), Marianna39_130 (FK), Paella_133 (FK), Qui_133 (FK),

Start 103:

- Found in 12 of 189 (6.3%) of genes in pham
- Manual Annotations of this start: 3 of 154
- Called 33.3% of time when present
- Phage (with cluster) where this start called: A3Wally_215 (GD1), Dodo_215 (GD1), PauloDiaboli_215 (GD1), Pumpnickel_196 (GD4),

Start 105:

- Found in 2 of 189 (1.1%) of genes in pham
- No Manual Annotations of this start.
- Called 50.0% of time when present
- Phage (with cluster) where this start called: ERHickory_13 (singleton),

Start 118:

- Found in 7 of 189 (3.7%) of genes in pham
- Manual Annotations of this start: 3 of 154

- Called 100.0% of time when present
- Phage (with cluster) where this start called: Elver_124 (FK), Gandionco_121 (FK), JeNeSaisPas_119 (FK), Kureo_122 (FK), Marianna39_122 (FK), Paella_124 (FK), Qui_124 (FK),

Start 121:

- Found in 4 of 189 (2.1%) of genes in pham
- Manual Annotations of this start: 4 of 154
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Kudrefre_118 (DU1), Octobien14_114 (DU1), Sephiroth_114 (DU1), Syleon_119 (DU1),

Start 148:

- Found in 1 of 189 (0.5%) of genes in pham
- Manual Annotations of this start: 1 of 154
- Called 100.0% of time when present
- Phage (with cluster) where this start called: DrLupo_104 (H2),

Summary by clusters:

There are 41 clusters represented in this pham: DN, GD1, singleton, DJ, AP2, AP3, DD, AP1, DL, AP4, FA, FC, DV, GD4, DT, FK, DS, FN, A15, A1, CZ2, DN2, C2, P2, AD, AI, EG, J, N, AP, BK1, W, DU1, UNK, DC2, CV, CT, F1, CR5, H2, BW,

Info for manual annotations of cluster A1:

- Start number 80 was manually annotated 1 time for cluster A1.
- Start number 90 was manually annotated 2 times for cluster A1.
- Start number 94 was manually annotated 17 times for cluster A1.

Info for manual annotations of cluster A15:

- Start number 88 was manually annotated 1 time for cluster A15.

Info for manual annotations of cluster AD:

- Start number 65 was manually annotated 2 times for cluster AD.

Info for manual annotations of cluster AI:

- Start number 71 was manually annotated 2 times 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 74 was manually annotated 1 time for cluster AP1.

Info for manual annotations of cluster AP2:

- Start number 68 was manually annotated 10 times for cluster AP2.
- Start number 91 was manually annotated 1 time for cluster AP2.

Info for manual annotations of cluster AP3:

- Start number 74 was manually annotated 1 time for cluster AP3.

Info for manual annotations of cluster AP4:

- Start number 74 was manually annotated 2 times for cluster AP4.

Info for manual annotations of cluster BK1:

- Start number 65 was manually annotated 7 times for cluster BK1.

Info for manual annotations of cluster BW:

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

Info for manual annotations of cluster C2:

- Start number 86 was manually annotated 3 times for cluster C2.

Info for manual annotations of cluster CT:

- Start number 94 was manually annotated 1 time for cluster CT.

Info for manual annotations of cluster CV:

- Start number 88 was manually annotated 1 time for cluster CV.

Info for manual annotations of cluster CZ2:

- Start number 70 was manually annotated 3 times for cluster CZ2.

Info for manual annotations of cluster DC2:

- Start number 89 was manually annotated 1 time for cluster DC2.

Info for manual annotations of cluster DD:

- Start number 90 was manually annotated 2 times for cluster DD.

Info for manual annotations of cluster DJ:

- Start number 84 was manually annotated 5 times for cluster DJ.

Info for manual annotations of cluster DL:

- Start number 88 was manually annotated 1 time for cluster DL.
- Start number 89 was manually annotated 2 times for cluster DL.

Info for manual annotations of cluster DN:

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

Info for manual annotations of cluster DN2:

- Start number 89 was manually annotated 1 time for cluster DN2.

Info for manual annotations of cluster DU1:

- Start number 121 was manually annotated 4 times for cluster DU1.

Info for manual annotations of cluster DV:

- Start number 75 was manually annotated 2 times for cluster DV.
- Start number 86 was manually annotated 1 time for cluster DV.

Info for manual annotations of cluster EG:

- Start number 84 was manually annotated 1 time for cluster EG.
- Start number 86 was manually annotated 7 times for cluster EG.
- Start number 96 was manually annotated 2 times for cluster EG.

Info for manual annotations of cluster F1:

- Start number 85 was manually annotated 1 time for cluster F1.
- Start number 91 was manually annotated 35 times for cluster F1.

Info for manual annotations of cluster FA:

- Start number 89 was manually annotated 2 times for cluster FA.

Info for manual annotations of cluster FC:

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

Info for manual annotations of cluster FK:

- Start number 102 was manually annotated 3 times for cluster FK.
- Start number 118 was manually annotated 3 times for cluster FK.

Info for manual annotations of cluster GD1:

- Start number 103 was manually annotated 2 times for cluster GD1.

Info for manual annotations of cluster GD4:

- Start number 103 was manually annotated 1 time for cluster GD4.

Info for manual annotations of cluster H2:

- Start number 148 was manually annotated 1 time for cluster H2.

Info for manual annotations of cluster J:

- Start number 94 was manually annotated 1 time for cluster J.

Info for manual annotations of cluster N:

- Start number 49 was manually annotated 5 times for cluster N.
- Start number 64 was manually annotated 5 times for cluster N.

Info for manual annotations of cluster P2:

- Start number 83 was manually annotated 1 time for cluster P2.

Info for manual annotations of cluster W:

- Start number 90 was manually annotated 2 times for cluster W.

Gene Information:

Gene: A3Wally_215 Start: 115440, Stop: 115123, Start Num: 103

Candidate Starts for A3Wally_215:

(Start: 103 @115440 has 3 MA's), (156, 115323), (168, 115284), (190, 115188), (198, 115128),

Gene: AWGoat_6 Start: 2566, Stop: 2979, Start Num: 74

Candidate Starts for AWGoat_6:

(Start: 74 @2566 has 4 MA's), (114, 2656), (157, 2773), (185, 2869),

Gene: Anglerfish_11 Start: 6625, Stop: 6939, Start Num: 94

Candidate Starts for Anglerfish_11:

(Start: 94 @6625 has 20 MA's), (114, 6664), (124, 6673), (151, 6742), (170, 6817), (186, 6877),

Gene: Annadreamy_67 Start: 53881, Stop: 54282, Start Num: 65
Candidate Starts for Annadreamy_67:
(Start: 65 @53881 has 9 MA's), (95, 53947), (114, 53992), (125, 54019), (126, 54025), (139, 54061),
(151, 54088), (153, 54094), (163, 54130), (174, 54181), (177, 54187),

Gene: Anon_48 Start: 31013, Stop: 30756, Start Num: 88
Candidate Starts for Anon_48:
(Start: 88 @31013 has 3 MA's), (170, 30884), (177, 30860),

Gene: Arcanine_11 Start: 6591, Stop: 6905, Start Num: 94
Candidate Starts for Arcanine_11:
(Start: 94 @6591 has 20 MA's), (114, 6630), (124, 6639), (151, 6708), (170, 6783), (186, 6843),

Gene: Argie_6 Start: 3283, Stop: 3579, Start Num: 90
Candidate Starts for Argie_6:
(Start: 90 @3283 has 6 MA's), (132, 3376), (141, 3391), (177, 3481), (184, 3505), (186, 3517),

Gene: ArtetaBall_2 Start: 479, Stop: 808, Start Num: 84
Candidate Starts for ArtetaBall_2:
(Start: 84 @479 has 6 MA's), (122, 545), (169, 686), (177, 713), (181, 725),

Gene: Atkinbua_11 Start: 6636, Stop: 6950, Start Num: 94
Candidate Starts for Atkinbua_11:
(Start: 94 @6636 has 20 MA's), (114, 6675), (151, 6753), (164, 6798),

Gene: Attis_55 Start: 39035, Stop: 39415, Start Num: 70
Candidate Starts for Attis_55:
(Start: 70 @39035 has 3 MA's), (100, 39089), (154, 39218), (164, 39254), (169, 39281), (170, 39284),
(179, 39314), (184, 39332), (186, 39344), (194, 39401),

Gene: Bantam_53 Start: 43734, Stop: 44000, Start Num: 89
Candidate Starts for Bantam_53:
(Start: 89 @43734 has 6 MA's), (114, 43782), (115, 43785), (170, 43878), (177, 43902),

Gene: Beagle_10 Start: 3455, Stop: 3862, Start Num: 68
Candidate Starts for Beagle_10:
(Start: 68 @3455 has 11 MA's), (Start: 94 @3506 has 20 MA's), (98, 3515), (130, 3602), (151, 3650),
(169, 3716), (173, 3734), (179, 3752),

Gene: BearBQ_64 Start: 41458, Stop: 41745, Start Num: 91
Candidate Starts for BearBQ_64:
(31, 41194), (39, 41230), (40, 41236), (53, 41332), (Start: 83 @41446 has 1 MA's), (Start: 91 @41458
has 39 MA's), (114, 41503), (155, 41575), (181, 41653), (186, 41677), (194, 41734),

Gene: BeesKnees_11 Start: 6720, Stop: 7034, Start Num: 94
Candidate Starts for BeesKnees_11:
(Start: 94 @6720 has 20 MA's), (114, 6759), (151, 6837), (164, 6882),

Gene: BellaJr_84 Start: 48464, Stop: 48778, Start Num: 90
Candidate Starts for BellaJr_84:
(Start: 90 @48464 has 6 MA's), (114, 48512), (192, 48746),

Gene: BetaFish_8 Start: 3461, Stop: 3868, Start Num: 68

Candidate Starts for BetaFish_8:

(Start: 68 @3461 has 11 MA's), (Start: 94 @3512 has 20 MA's), (98, 3521), (130, 3608), (151, 3656), (169, 3722), (173, 3740), (179, 3758),

Gene: Beuffert_67 Start: 55006, Stop: 55407, Start Num: 65

Candidate Starts for Beuffert_67:

(Start: 65 @55006 has 9 MA's), (111, 55111), (114, 55117), (125, 55144), (163, 55255), (172, 55300), (177, 55312),

Gene: BigAnti_4 Start: 2585, Stop: 2959, Start Num: 98

Candidate Starts for BigAnti_4:

(77, 2546), (98, 2585), (99, 2588), (101, 2597), (110, 2618), (123, 2648), (131, 2669), (158, 2729), (170, 2777), (177, 2801),

Gene: Blanky_1 Start: 220, Stop: 549, Start Num: 84

Candidate Starts for Blanky_1:

(Start: 84 @220 has 6 MA's), (114, 268), (147, 352), (169, 427), (170, 430), (177, 454), (181, 466),

Gene: Blexus_93 Start: 53556, Stop: 53837, Start Num: 91

Candidate Starts for Blexus_93:

(17, 53145), (20, 53166), (21, 53187), (25, 53217), (Start: 91 @53556 has 39 MA's), (114, 53601), (125, 53619), (177, 53736),

Gene: Blueeyedbeauty_69 Start: 54393, Stop: 54800, Start Num: 65

Candidate Starts for Blueeyedbeauty_69:

(Start: 65 @54393 has 9 MA's), (78, 54429), (112, 54507), (126, 54543), (141, 54582), (159, 54633), (168, 54666), (175, 54699), (177, 54705),

Gene: BobaPhett_98 Start: 55238, Stop: 55519, Start Num: 91

Candidate Starts for BobaPhett_98:

(17, 54827), (20, 54848), (21, 54869), (25, 54899), (Start: 91 @55238 has 39 MA's), (114, 55283), (125, 55301), (177, 55418), (186, 55454),

Gene: Bobby_171 Start: 94727, Stop: 95017, Start Num: 94

Candidate Starts for Bobby_171:

(Start: 94 @94727 has 20 MA's), (Start: 103 @94751 has 3 MA's), (114, 94766), (177, 94919), (179, 94925),

Gene: Briton15_12 Start: 6774, Stop: 7046, Start Num: 90

Candidate Starts for Briton15_12:

(Start: 90 @6774 has 6 MA's), (114, 6813), (125, 6831), (166, 6909), (177, 6948),

Gene: Brocalys_88 Start: 50717, Stop: 50998, Start Num: 91

Candidate Starts for Brocalys_88:

(17, 50306), (20, 50327), (21, 50348), (25, 50378), (Start: 91 @50717 has 39 MA's), (114, 50762), (125, 50780), (177, 50897),

Gene: BruhMoment_8 Start: 3480, Stop: 3902, Start Num: 74

Candidate Starts for BruhMoment_8:

(34, 3276), (37, 3288), (50, 3375), (Start: 74 @3480 has 4 MA's), (Start: 94 @3522 has 20 MA's), (117, 3579), (137, 3636), (152, 3669), (170, 3735), (171, 3738), (179, 3768),

Gene: Burwell21_90 Start: 53003, Stop: 53284, Start Num: 91

Candidate Starts for Burwell21_90:

(17, 52592), (20, 52613), (21, 52634), (25, 52664), (Start: 91 @53003 has 39 MA's), (114, 53048), (125, 53066), (177, 53183),

Gene: ByChance_87 Start: 49075, Stop: 49356, Start Num: 91

Candidate Starts for ByChance_87:

(17, 48664), (20, 48685), (21, 48706), (25, 48736), (Start: 91 @49075 has 39 MA's), (114, 49120), (125, 49138), (177, 49255),

Gene: CWormy_2 Start: 479, Stop: 808, Start Num: 84

Candidate Starts for CWormy_2:

(Start: 84 @479 has 6 MA's), (122, 545), (169, 686), (177, 713), (181, 725),

Gene: Cabrinians_93 Start: 52638, Stop: 52919, Start Num: 91

Candidate Starts for Cabrinians_93:

(17, 52227), (20, 52248), (21, 52269), (25, 52299), (Start: 91 @52638 has 39 MA's), (114, 52683), (125, 52701), (177, 52818),

Gene: CandC_55 Start: 37729, Stop: 37433, Start Num: 86

Candidate Starts for CandC_55:

(19, 38122), (24, 38068), (32, 37984), (72, 37759), (Start: 84 @37732 has 6 MA's), (Start: 86 @37729 has 12 MA's), (Start: 94 @37717 has 20 MA's), (Start: 103 @37693 has 3 MA's), (114, 37678), (132, 37630), (142, 37621), (166, 37585), (177, 37543), (183, 37522),

Gene: Cantare_94 Start: 71064, Stop: 71369, Start Num: 86

Candidate Starts for Cantare_94:

(Start: 86 @71064 has 12 MA's), (177, 71268), (192, 71337),

Gene: Carcharodon_55 Start: 36177, Stop: 36665, Start Num: 49

Candidate Starts for Carcharodon_55:

(Start: 49 @36177 has 5 MA's), (52, 36213), (Start: 64 @36267 has 5 MA's), (134, 36420), (135, 36423), (146, 36450), (177, 36561), (179, 36567), (194, 36654),

Gene: Cardigan_143 Start: 79014, Stop: 79379, Start Num: 90

Candidate Starts for Cardigan_143:

(Start: 90 @79014 has 6 MA's), (Start: 103 @79044 has 3 MA's), (109, 79059), (113, 79065), (122, 79089), (143, 79149), (176, 79257), (177, 79260), (195, 79365),

Gene: Causa_146 Start: 84210, Stop: 83881, Start Num: 71

Candidate Starts for Causa_146:

(Start: 71 @84210 has 2 MA's), (99, 84153), (154, 84015), (160, 83991), (175, 83943),

Gene: Clifton_88 Start: 51692, Stop: 51973, Start Num: 91

Candidate Starts for Clifton_88:

(17, 51281), (20, 51302), (21, 51323), (25, 51353), (Start: 91 @51692 has 39 MA's), (114, 51737), (125, 51755), (177, 51872),

Gene: Clown_82 Start: 53661, Stop: 54005, Start Num: 89

Candidate Starts for Clown_82:

(Start: 89 @53661 has 6 MA's), (114, 53709), (146, 53778), (171, 53832), (173, 53841), (199, 53973), (200, 53982),

Gene: Constance_64 Start: 41355, Stop: 41633, Start Num: 89

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), (14, 40857), (18, 40944), (38, 41130), (45, 41163), (59, 41259), (Start: 89 @41355 has 6 MA's), (176, 41529), (177, 41532), (186, 41568), (193, 41622),

Gene: Crocheter_2 Start: 479, Stop: 808, Start Num: 84

Candidate Starts for Crocheter_2:

(Start: 84 @479 has 6 MA's), (122, 545), (169, 686), (177, 713), (181, 725),

Gene: Crumble_91 Start: 49362, Stop: 49643, Start Num: 91

Candidate Starts for Crumble_91:

(17, 48951), (20, 48972), (21, 48993), (25, 49023), (Start: 91 @49362 has 39 MA's), (114, 49407), (125, 49425), (177, 49542),

Gene: DatBoi_51 Start: 43635, Stop: 43889, Start Num: 88

Candidate Starts for DatBoi_51:

(Start: 88 @43635 has 3 MA's), (105, 43674), (177, 43791),

Gene: Dialga_2 Start: 479, Stop: 808, Start Num: 84

Candidate Starts for Dialga_2:

(Start: 84 @479 has 6 MA's), (122, 545), (169, 686), (177, 713), (181, 725),

Gene: Dodo_215 Start: 115242, Stop: 114925, Start Num: 103

Candidate Starts for Dodo_215:

(Start: 103 @115242 has 3 MA's), (149, 115140), (156, 115125), (168, 115086), (177, 115047), (190, 114990), (198, 114930),

Gene: DogYard_8 Start: 3331, Stop: 3738, Start Num: 68

Candidate Starts for DogYard_8:

(Start: 68 @3331 has 11 MA's), (Start: 94 @3382 has 20 MA's), (98, 3391), (130, 3478), (151, 3526), (169, 3592), (173, 3610), (179, 3628),

Gene: Dori_58 Start: 47703, Stop: 48095, Start Num: 65

Candidate Starts for Dori_58:

(60, 47673), (Start: 65 @47703 has 9 MA's), (87, 47751), (134, 47850), (135, 47853), (146, 47880), (177, 47991), (179, 47997),

Gene: DrLupo_104 Start: 65399, Stop: 65650, Start Num: 148

Candidate Starts for DrLupo_104:

(Start: 85 @65246 has 1 MA's), (97, 65267), (132, 65360), (Start: 148 @65399 has 1 MA's), (187, 65552), (189, 65558),

Gene: DreamCatcher_12 Start: 7365, Stop: 7679, Start Num: 94

Candidate Starts for DreamCatcher_12:

(Start: 94 @7365 has 20 MA's), (114, 7404), (124, 7413), (151, 7482), (170, 7557), (186, 7617),

Gene: Dynamix_11 Start: 6722, Stop: 7036, Start Num: 94

Candidate Starts for Dynamix_11:

(Start: 94 @6722 has 20 MA's), (114, 6761), (124, 6770), (151, 6839), (170, 6914), (186, 6974),

Gene: EGUunicorn_51 Start: 35104, Stop: 35502, Start Num: 64

Candidate Starts for EGUunicorn_51:

(Start: 49 @35014 has 5 MA's), (52, 35050), (Start: 64 @35104 has 5 MA's), (134, 35257), (135, 35260), (146, 35287), (177, 35398), (179, 35404), (194, 35491),

Gene: ERHickory_13 Start: 5618, Stop: 5839, Start Num: 105

Candidate Starts for ERHickory_13:

(Start: 96 @5594 has 2 MA's), (105, 5618), (177, 5738),

Gene: Elver_133 Start: 70843, Stop: 71208, Start Num: 102

Candidate Starts for Elver_133:

(66, 70765), (Start: 102 @70843 has 3 MA's), (145, 70954), (170, 71029), (184, 71080),

Gene: Elver_124 Start: 67517, Stop: 67825, Start Num: 118

Candidate Starts for Elver_124:

(Start: 118 @67517 has 3 MA's), (134, 67562), (151, 67601), (179, 67697),

Gene: Faust_71 Start: 56000, Stop: 56389, Start Num: 65

Candidate Starts for Faust_71:

(Start: 65 @56000 has 9 MA's), (104, 56087), (108, 56096), (136, 56168), (139, 56174), (188, 56351), (191, 56360),

Gene: Fenn_11 Start: 6952, Stop: 7266, Start Num: 94

Candidate Starts for Fenn_11:

(Start: 94 @6952 has 20 MA's), (114, 6991), (151, 7069), (164, 7114),

Gene: Forrestell_8 Start: 3035, Stop: 3442, Start Num: 68

Candidate Starts for Forrestell_8:

(Start: 68 @3035 has 11 MA's), (Start: 94 @3086 has 20 MA's), (98, 3095), (130, 3182), (151, 3230), (169, 3296), (173, 3314), (179, 3332),

Gene: Fransoyer_60 Start: 45317, Stop: 45054, Start Num: 96

Candidate Starts for Fransoyer_60:

(Start: 96 @45317 has 2 MA's), (106, 45290), (122, 45269), (177, 45158), (186, 45122), (194, 45065),

Gene: FreddyB_106 Start: 54284, Stop: 54565, Start Num: 91

Candidate Starts for FreddyB_106:

(17, 53873), (20, 53894), (21, 53915), (25, 53945), (Start: 91 @54284 has 39 MA's), (114, 54329), (125, 54347), (177, 54464),

Gene: G4_46 Start: 30222, Stop: 30545, Start Num: 91

Candidate Starts for G4_46:

(69, 30180), (Start: 91 @30222 has 39 MA's), (Start: 94 @30228 has 20 MA's), (116, 30276), (133, 30312), (164, 30378), (170, 30408), (177, 30432),

Gene: GMA2_84 Start: 80351, Stop: 80010, Start Num: 84

Candidate Starts for GMA2_84:

(Start: 84 @80351 has 6 MA's), (Start: 94 @80342 has 20 MA's), (169, 80141), (170, 80138), (194, 80021),

Gene: GMA4_42 Start: 31658, Stop: 32065, Start Num: 62

Candidate Starts for GMA4_42:

(48, 31565), (62, 31658), (87, 31715), (134, 31823), (146, 31853), (155, 31877), (162, 31901), (169, 31934), (192, 32033),

Gene: Gandionco_121 Start: 66329, Stop: 66637, Start Num: 118
Candidate Starts for Gandionco_121:
(Start: 118 @66329 has 3 MA's), (134, 66374), (151, 66413), (179, 66509),

Gene: Gandionco_129 Start: 69661, Stop: 70026, Start Num: 102
Candidate Starts for Gandionco_129:
(66, 69583), (Start: 102 @69661 has 3 MA's), (145, 69772), (170, 69847), (184, 69898),

Gene: Gex_56 Start: 36283, Stop: 36681, Start Num: 64
Candidate Starts for Gex_56:
(Start: 49 @36193 has 5 MA's), (52, 36229), (Start: 64 @36283 has 5 MA's), (134, 36436), (135, 36439), (146, 36466), (177, 36577), (179, 36583), (194, 36670),

Gene: GodPhather_6 Start: 3283, Stop: 3579, Start Num: 90
Candidate Starts for GodPhather_6:
(Start: 90 @3283 has 6 MA's), (132, 3376), (141, 3391), (177, 3481), (184, 3505), (186, 3517),

Gene: Gorge_95 Start: 53911, Stop: 54192, Start Num: 91
Candidate Starts for Gorge_95:
(17, 53500), (20, 53521), (21, 53542), (25, 53572), (Start: 91 @53911 has 39 MA's), (114, 53956), (125, 53974), (177, 54091),

Gene: Greely_244 Start: 137695, Stop: 138051, Start Num: 86
Candidate Starts for Greely_244:
(26, 137374), (36, 137473), (45, 137515), (Start: 86 @137695 has 12 MA's), (114, 137746), (146, 137821), (147, 137824), (165, 137854), (166, 137863), (177, 137905), (179, 137911), (182, 137920), (184, 137929),

Gene: HomeFry_79 Start: 53143, Stop: 52757, Start Num: 67
Candidate Starts for HomeFry_79:
(16, 53527), (67, 53143), (127, 53014), (134, 52996), (146, 52966),

Gene: Hortihabitatio_2 Start: 447, Stop: 776, Start Num: 84
Candidate Starts for Hortihabitatio_2:
(56, 342), (67, 414), (Start: 84 @447 has 6 MA's), (122, 513), (169, 654), (176, 678), (177, 681), (181, 693),

Gene: Ichabod_11 Start: 6739, Stop: 7011, Start Num: 90
Candidate Starts for Ichabod_11:
(Start: 90 @6739 has 6 MA's), (114, 6778), (125, 6796), (166, 6874), (177, 6913),

Gene: James_100 Start: 55293, Stop: 55574, Start Num: 91
Candidate Starts for James_100:
(17, 54882), (20, 54903), (21, 54924), (25, 54954), (Start: 91 @55293 has 39 MA's), (114, 55338), (125, 55356), (177, 55473),

Gene: Jarcob_99 Start: 54892, Stop: 55173, Start Num: 91
Candidate Starts for Jarcob_99:
(17, 54481), (20, 54502), (21, 54523), (25, 54553), (Start: 91 @54892 has 39 MA's), (114, 54937), (125, 54955), (177, 55072),

Gene: JeNeSaisPas_119 Start: 66931, Stop: 67239, Start Num: 118
Candidate Starts for JeNeSaisPas_119:

(Start: 118 @66931 has 3 MA's), (134, 66976), (151, 67015), (179, 67111),

Gene: JeNeSaisPas_127 Start: 70257, Stop: 70622, Start Num: 102

Candidate Starts for JeNeSaisPas_127:

(66, 70179), (Start: 102 @70257 has 3 MA's), (145, 70368), (170, 70443), (184, 70494),

Gene: JeanGrey_20 Start: 10459, Stop: 10809, Start Num: 80

Candidate Starts for JeanGrey_20:

(Start: 80 @10459 has 1 MA's),

Gene: Jennelsea_93 Start: 52193, Stop: 52474, Start Num: 91

Candidate Starts for Jennelsea_93:

(17, 51782), (20, 51803), (21, 51824), (25, 51854), (Start: 91 @52193 has 39 MA's), (114, 52238), (125, 52256), (177, 52373), (186, 52409),

Gene: JonJames_139 Start: 79256, Stop: 79624, Start Num: 90

Candidate Starts for JonJames_139:

(Start: 90 @79256 has 6 MA's), (Start: 103 @79286 has 3 MA's), (109, 79301), (113, 79307), (122, 79331), (140, 79382), (176, 79502), (177, 79505), (184, 79529), (195, 79610),

Gene: KSSJEB_10 Start: 6483, Stop: 6797, Start Num: 94

Candidate Starts for KSSJEB_10:

(Start: 80 @6456 has 1 MA's), (Start: 94 @6483 has 20 MA's), (114, 6522), (124, 6531), (151, 6600), (170, 6675), (186, 6735),

Gene: Kelcole_54 Start: 37921, Stop: 37628, Start Num: 86

Candidate Starts for Kelcole_54:

(72, 37951), (Start: 84 @37924 has 6 MA's), (Start: 86 @37921 has 12 MA's), (Start: 94 @37909 has 20 MA's), (114, 37870), (115, 37867), (128, 37834), (132, 37822), (142, 37813), (177, 37735), (183, 37714), (186, 37699),

Gene: KillerQueen_57 Start: 38171, Stop: 37878, Start Num: 86

Candidate Starts for KillerQueen_57:

(72, 38201), (Start: 84 @38174 has 6 MA's), (Start: 86 @38171 has 12 MA's), (Start: 94 @38159 has 20 MA's), (114, 38120), (115, 38117), (128, 38084), (132, 38072), (142, 38063), (177, 37985), (183, 37964), (186, 37949),

Gene: Koella_89 Start: 50055, Stop: 50336, Start Num: 91

Candidate Starts for Koella_89:

(17, 49644), (20, 49665), (21, 49686), (25, 49716), (Start: 91 @50055 has 39 MA's), (114, 50100), (125, 50118), (177, 50235),

Gene: Kubulix_9 Start: 3460, Stop: 3867, Start Num: 68

Candidate Starts for Kubulix_9:

(Start: 68 @3460 has 11 MA's), (Start: 94 @3511 has 20 MA's), (98, 3520), (130, 3607), (151, 3655), (169, 3721), (173, 3739), (179, 3757),

Gene: Kudfre_118 Start: 64805, Stop: 65071, Start Num: 121

Candidate Starts for Kudfre_118:

(66, 64688), (Start: 121 @64805 has 4 MA's), (180, 64979), (193, 65060),

Gene: Kureo_122 Start: 66525, Stop: 66833, Start Num: 118

Candidate Starts for Kureo_122:

(Start: 118 @66525 has 3 MA's), (134, 66570), (151, 66609), (179, 66705),

Gene: Kureo_130 Start: 69857, Stop: 70222, Start Num: 102

Candidate Starts for Kureo_130:

(66, 69779), (Start: 102 @69857 has 3 MA's), (145, 69968), (170, 70043), (184, 70094),

Gene: Lambo_93 Start: 64770, Stop: 65072, Start Num: 86

Candidate Starts for Lambo_93:

(Start: 75 @64743 has 2 MA's), (79, 64752), (82, 64761), (Start: 86 @64770 has 12 MA's), (114, 64818), (177, 64971), (184, 64995),

Gene: LastJedi_87 Start: 51112, Stop: 51393, Start Num: 91

Candidate Starts for LastJedi_87:

(17, 50701), (20, 50722), (21, 50743), (25, 50773), (Start: 91 @51112 has 39 MA's), (114, 51157), (125, 51175), (177, 51292),

Gene: Latretium_99 Start: 54158, Stop: 54439, Start Num: 91

Candidate Starts for Latretium_99:

(17, 53747), (20, 53768), (21, 53789), (25, 53819), (Start: 91 @54158 has 39 MA's), (114, 54203), (125, 54221), (177, 54338),

Gene: LilMoolah_99 Start: 54092, Stop: 54373, Start Num: 91

Candidate Starts for LilMoolah_99:

(17, 53681), (20, 53702), (21, 53723), (25, 53753), (Start: 91 @54092 has 39 MA's), (114, 54137), (125, 54155), (177, 54272),

Gene: Limpid_66 Start: 53880, Stop: 54281, Start Num: 65

Candidate Starts for Limpid_66:

(Start: 65 @53880 has 9 MA's), (95, 53946), (114, 53991), (125, 54018), (126, 54024), (139, 54060), (151, 54087), (153, 54093), (163, 54129), (174, 54180), (177, 54186),

Gene: Lizziana_97 Start: 54360, Stop: 54641, Start Num: 91

Candidate Starts for Lizziana_97:

(17, 53949), (20, 53970), (21, 53991), (25, 54021), (Start: 91 @54360 has 39 MA's), (114, 54405), (125, 54423), (177, 54540),

Gene: LordFarquaad_57 Start: 39016, Stop: 39396, Start Num: 70

Candidate Starts for LordFarquaad_57:

(Start: 70 @39016 has 3 MA's), (100, 39070), (154, 39199), (164, 39235), (169, 39262), (170, 39265), (179, 39295), (184, 39313), (186, 39325), (194, 39382),

Gene: Magsby_55 Start: 36284, Stop: 36682, Start Num: 64

Candidate Starts for Magsby_55:

(Start: 49 @36194 has 5 MA's), (52, 36230), (Start: 64 @36284 has 5 MA's), (134, 36437), (135, 36440), (146, 36467), (177, 36578), (179, 36584), (194, 36671),

Gene: Manatee_11 Start: 6673, Stop: 6987, Start Num: 94

Candidate Starts for Manatee_11:

(Start: 94 @6673 has 20 MA's), (114, 6712), (124, 6721), (151, 6790), (170, 6865), (186, 6925),

Gene: Maravista_93 Start: 55020, Stop: 55301, Start Num: 91

Candidate Starts for Maravista_93:

(17, 54609), (20, 54630), (21, 54651), (25, 54681), (Start: 91 @55020 has 39 MA's), (114, 55065), (125, 55083), (177, 55200),

Gene: Marcie_61 Start: 38811, Stop: 38491, Start Num: 86

Candidate Starts for Marcie_61:

(72, 38841), (Start: 84 @38814 has 6 MA's), (Start: 86 @38811 has 12 MA's), (114, 38760), (132, 38712), (144, 38682), (167, 38637), (177, 38598), (183, 38577), (186, 38562),

Gene: Marianna39_122 Start: 66940, Stop: 67248, Start Num: 118

Candidate Starts for Marianna39_122:

(Start: 118 @66940 has 3 MA's), (134, 66985), (151, 67024), (179, 67120),

Gene: Marianna39_130 Start: 70266, Stop: 70631, Start Num: 102

Candidate Starts for Marianna39_130:

(66, 70188), (Start: 102 @70266 has 3 MA's), (145, 70377), (170, 70452), (184, 70503),

Gene: Martik_95 Start: 54823, Stop: 55104, Start Num: 91

Candidate Starts for Martik_95:

(17, 54412), (20, 54433), (21, 54454), (25, 54484), (Start: 91 @54823 has 39 MA's), (114, 54868), (125, 54886), (177, 55003),

Gene: Mask_58 Start: 48446, Stop: 48838, Start Num: 65

Candidate Starts for Mask_58:

(60, 48416), (Start: 65 @48446 has 9 MA's), (87, 48494), (134, 48593), (135, 48596), (146, 48623), (177, 48734), (179, 48740),

Gene: Mattes_97 Start: 54029, Stop: 54310, Start Num: 91

Candidate Starts for Mattes_97:

(17, 53618), (20, 53639), (21, 53660), (25, 53690), (Start: 91 @54029 has 39 MA's), (114, 54074), (125, 54092), (177, 54209), (186, 54245),

Gene: McGuire_11 Start: 6718, Stop: 7032, Start Num: 94

Candidate Starts for McGuire_11:

(Start: 94 @6718 has 20 MA's), (114, 6757), (124, 6766), (151, 6835), (170, 6910), (186, 6970),

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

Candidate Starts for MellowYellow_8:

(Start: 68 @3065 has 11 MA's), (Start: 94 @3116 has 20 MA's), (98, 3125), (130, 3212), (151, 3260), (169, 3326), (173, 3344), (179, 3362),

Gene: Minnie_91 Start: 54441, Stop: 54722, Start Num: 91

Candidate Starts for Minnie_91:

(17, 54030), (20, 54051), (21, 54072), (25, 54102), (Start: 91 @54441 has 39 MA's), (114, 54486), (125, 54504), (177, 54621),

Gene: MortyNRick_62 Start: 41583, Stop: 41870, Start Num: 91

Candidate Starts for MortyNRick_62:

(28, 41283), (33, 41334), (35, 41346), (41, 41370), (53, 41457), (Start: 83 @41571 has 1 MA's), (Start: 91 @41583 has 39 MA's), (114, 41628), (155, 41700), (181, 41778), (186, 41802), (194, 41859),

Gene: Mossy_1 Start: 220, Stop: 549, Start Num: 84

Candidate Starts for Mossy_1:

(Start: 84 @220 has 6 MA's), (114, 268), (147, 352), (169, 427), (177, 454), (181, 466),

Gene: Myrna_235 Start: 137260, Stop: 137607, Start Num: 86

Candidate Starts for Myrna_235:

(15, 136774), (22, 136918), (29, 136978), (47, 137095), (Start: 86 @137260 has 12 MA's), (114, 137311), (177, 137461), (179, 137467), (182, 137476), (184, 137485), (201, 137599),

Gene: Naira_11 Start: 6952, Stop: 7266, Start Num: 94

Candidate Starts for Naira_11:

(Start: 94 @6952 has 20 MA's), (114, 6991), (151, 7069), (164, 7114),

Gene: Nikan_9 Start: 4093, Stop: 4401, Start Num: 91

Candidate Starts for Nikan_9:

(Start: 91 @4093 has 39 MA's), (177, 4297), (186, 4333),

Gene: Nina_52 Start: 37854, Stop: 37525, Start Num: 94

Candidate Starts for Nina_52:

(Start: 94 @37854 has 20 MA's), (114, 37815), (152, 37722), (169, 37653),

Gene: Nivrat_96 Start: 53965, Stop: 54246, Start Num: 91

Candidate Starts for Nivrat_96:

(17, 53554), (20, 53575), (21, 53596), (25, 53626), (Start: 91 @53965 has 39 MA's), (114, 54010), (125, 54028), (177, 54145),

Gene: NormanBulbieJr_94 Start: 54069, Stop: 54350, Start Num: 91

Candidate Starts for NormanBulbieJr_94:

(17, 53658), (20, 53679), (21, 53700), (25, 53730), (Start: 91 @54069 has 39 MA's), (114, 54114), (125, 54132), (177, 54249),

Gene: Octobien14_114 Start: 63585, Stop: 63860, Start Num: 121

Candidate Starts for Octobien14_114:

(66, 63468), (Start: 121 @63585 has 4 MA's), (146, 63651), (193, 63849),

Gene: Odyssey395_10 Start: 3459, Stop: 3866, Start Num: 68

Candidate Starts for Odyssey395_10:

(Start: 68 @3459 has 11 MA's), (Start: 94 @3510 has 20 MA's), (98, 3519), (130, 3606), (151, 3654), (169, 3720), (173, 3738), (179, 3756),

Gene: Ollypop_11 Start: 4172, Stop: 4435, Start Num: 91

Candidate Starts for Ollypop_11:

(Start: 91 @4172 has 39 MA's), (120, 4235), (129, 4256), (167, 4292), (177, 4331),

Gene: Ollypop_7 Start: 3116, Stop: 3523, Start Num: 68

Candidate Starts for Ollypop_7:

(54, 3041), (63, 3092), (Start: 68 @3116 has 11 MA's), (98, 3176), (109, 3206), (151, 3311), (173, 3395), (179, 3413),

Gene: OlympiaSaint_100 Start: 54235, Stop: 54516, Start Num: 91

Candidate Starts for OlympiaSaint_100:

(17, 53824), (20, 53845), (21, 53866), (25, 53896), (Start: 91 @54235 has 39 MA's), (114, 54280), (125, 54298), (177, 54415),

Gene: OneinaGillian_56 Start: 37823, Stop: 37530, Start Num: 86

Candidate Starts for OneinaGillian_56:

(72, 37853), (Start: 84 @37826 has 6 MA's), (Start: 86 @37823 has 12 MA's), (Start: 94 @37811 has 20 MA's), (114, 37772), (115, 37769), (128, 37736), (132, 37724), (142, 37715), (177, 37637), (183, 37616), (186, 37601),

Gene: Paella_133 Start: 71406, Stop: 71771, Start Num: 102

Candidate Starts for Paella_133:

(66, 71328), (Start: 102 @71406 has 3 MA's), (145, 71517), (170, 71592), (184, 71643),

Gene: Paella_124 Start: 68080, Stop: 68388, Start Num: 118

Candidate Starts for Paella_124:

(Start: 118 @68080 has 3 MA's), (134, 68125), (151, 68164), (179, 68260),

Gene: Parmesanjohn_55 Start: 36197, Stop: 36685, Start Num: 49

Candidate Starts for Parmesanjohn_55:

(Start: 49 @36197 has 5 MA's), (52, 36233), (Start: 64 @36287 has 5 MA's), (134, 36440), (135, 36443), (146, 36470), (177, 36581), (179, 36587), (194, 36674),

Gene: ParvusTarda_93 Start: 64024, Stop: 64359, Start Num: 75

Candidate Starts for ParvusTarda_93:

(Start: 75 @64024 has 2 MA's), (79, 64033), (82, 64042), (Start: 86 @64051 has 12 MA's), (114, 64099), (177, 64252), (184, 64276), (194, 64345),

Gene: PauloDiaboli_215 Start: 113653, Stop: 113336, Start Num: 103

Candidate Starts for PauloDiaboli_215:

(Start: 103 @113653 has 3 MA's), (156, 113536), (168, 113497), (177, 113458), (190, 113401), (198, 113341),

Gene: Peas_65 Start: 41993, Stop: 42271, Start Num: 89

Candidate Starts for Peas_65:

(13, 41477), (38, 41768), (59, 41897), (Start: 89 @41993 has 6 MA's), (176, 42167), (177, 42170), (186, 42206), (193, 42260),

Gene: Pepe25_55 Start: 37387, Stop: 37064, Start Num: 86

Candidate Starts for Pepe25_55:

(72, 37417), (Start: 84 @37390 has 6 MA's), (Start: 86 @37387 has 12 MA's), (Start: 94 @37375 has 20 MA's), (Start: 103 @37351 has 3 MA's), (114, 37336), (128, 37300), (132, 37288), (144, 37258), (167, 37213), (177, 37174),

Gene: Perkunas_2 Start: 448, Stop: 780, Start Num: 84

Candidate Starts for Perkunas_2:

(Start: 84 @448 has 6 MA's), (122, 514), (177, 682), (184, 706),

Gene: Phabba_246 Start: 137077, Stop: 137433, Start Num: 86

Candidate Starts for Phabba_246:

(26, 136756), (45, 136897), (Start: 86 @137077 has 12 MA's), (114, 137128), (146, 137203), (165, 137236), (166, 137245), (177, 137287), (179, 137293), (182, 137302), (184, 137311),

Gene: Philus_98 Start: 54977, Stop: 55258, Start Num: 91

Candidate Starts for Philus_98:

(17, 54566), (20, 54587), (21, 54608), (25, 54638), (Start: 91 @54977 has 39 MA's), (114, 55022), (125, 55040), (177, 55157),

Gene: Phloss_53 Start: 35604, Stop: 36092, Start Num: 49

Candidate Starts for Phloss_53:

(Start: 49 @35604 has 5 MA's), (52, 35640), (Start: 64 @35694 has 5 MA's), (134, 35847), (135, 35850), (146, 35877), (177, 35988), (179, 35994), (194, 36081),

Gene: PhuzzTulsa_6 Start: 3249, Stop: 3656, Start Num: 68

Candidate Starts for PhuzzTulsa_6:

(Start: 68 @3249 has 11 MA's), (Start: 94 @3300 has 20 MA's), (98, 3309), (130, 3396), (151, 3444), (169, 3510), (173, 3528), (179, 3546),

Gene: PinkPlastic_9 Start: 6480, Stop: 6794, Start Num: 94

Candidate Starts for PinkPlastic_9:

(Start: 94 @6480 has 20 MA's), (114, 6519), (124, 6528), (151, 6597), (170, 6672), (186, 6732),

Gene: Pipp_48 Start: 34437, Stop: 34712, Start Num: 88

Candidate Starts for Pipp_48:

(Start: 88 @34437 has 3 MA's), (177, 34608), (184, 34632),

Gene: Pippy_94 Start: 52340, Stop: 52621, Start Num: 91

Candidate Starts for Pippy_94:

(17, 51929), (20, 51950), (21, 51971), (25, 52001), (Start: 91 @52340 has 39 MA's), (114, 52385), (125, 52403), (177, 52520),

Gene: Pipsqueaks_56 Start: 36265, Stop: 36663, Start Num: 64

Candidate Starts for Pipsqueaks_56:

(Start: 49 @36175 has 5 MA's), (52, 36211), (Start: 64 @36265 has 5 MA's), (134, 36418), (135, 36421), (146, 36448), (177, 36559), (179, 36565), (194, 36652),

Gene: Pointis_8 Start: 3460, Stop: 3867, Start Num: 68

Candidate Starts for Pointis_8:

(Start: 68 @3460 has 11 MA's), (Start: 94 @3511 has 20 MA's), (98, 3520), (130, 3607), (151, 3655), (169, 3721), (173, 3739), (179, 3757),

Gene: Popstraw_8 Start: 3443, Stop: 3850, Start Num: 68

Candidate Starts for Popstraw_8:

(Start: 68 @3443 has 11 MA's), (Start: 94 @3494 has 20 MA's), (98, 3503), (130, 3590), (151, 3638), (169, 3704), (173, 3722), (179, 3740),

Gene: Priscilla_97 Start: 54167, Stop: 54448, Start Num: 91

Candidate Starts for Priscilla_97:

(17, 53756), (20, 53777), (21, 53798), (25, 53828), (Start: 91 @54167 has 39 MA's), (114, 54212), (125, 54230), (177, 54347),

Gene: Pumpernickel_196 Start: 112347, Stop: 112042, Start Num: 103

Candidate Starts for Pumpernickel_196:

(Start: 103 @112347 has 3 MA's), (107, 112341), (138, 112272), (178, 112170), (196, 112059),

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

Candidate Starts for Pureglobe5_10:

(Start: 68 @3473 has 11 MA's), (Start: 94 @3524 has 20 MA's), (98, 3533), (130, 3620), (151, 3668), (169, 3734), (173, 3752), (179, 3770),

Gene: Qui_124 Start: 68080, Stop: 68388, Start Num: 118

Candidate Starts for Qui_124:

(Start: 118 @68080 has 3 MA's), (134, 68125), (151, 68164), (179, 68260),

Gene: Qui_133 Start: 71406, Stop: 71771, Start Num: 102

Candidate Starts for Qui_133:

(66, 71328), (Start: 102 @71406 has 3 MA's), (145, 71517), (170, 71592), (184, 71643),

Gene: Rajelicia_10 Start: 6620, Stop: 6934, Start Num: 94

Candidate Starts for Rajelicia_10:

(Start: 94 @6620 has 20 MA's), (114, 6659), (124, 6668), (151, 6737), (170, 6812), (186, 6872),

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

Candidate Starts for Ranunculus_6:

(Start: 68 @3041 has 11 MA's), (151, 3236), (170, 3305), (173, 3320), (178, 3335), (179, 3338),

Gene: RazzB_7 Start: 2835, Stop: 3242, Start Num: 68

Candidate Starts for RazzB_7:

(Start: 68 @2835 has 11 MA's), (Start: 94 @2886 has 20 MA's), (98, 2895), (130, 2982), (151, 3030), (169, 3096), (173, 3114), (179, 3132),

Gene: RedBaron_55 Start: 37907, Stop: 37578, Start Num: 94

Candidate Starts for RedBaron_55:

(Start: 94 @37907 has 20 MA's), (114, 37868), (152, 37775), (169, 37706),

Gene: Ren19_8 Start: 4093, Stop: 4401, Start Num: 91

Candidate Starts for Ren19_8:

(Start: 91 @4093 has 39 MA's), (177, 4297), (186, 4333),

Gene: Rizwana_7 Start: 3422, Stop: 3844, Start Num: 74

Candidate Starts for Rizwana_7:

(58, 3356), (Start: 74 @3422 has 4 MA's), (Start: 91 @3458 has 39 MA's), (108, 3500), (130, 3560), (178, 3707), (179, 3710),

Gene: RobinRose_58 Start: 38338, Stop: 38039, Start Num: 84

Candidate Starts for RobinRose_58:

(72, 38365), (Start: 84 @38338 has 6 MA's), (Start: 86 @38335 has 12 MA's), (Start: 94 @38323 has 20 MA's), (Start: 103 @38299 has 3 MA's), (114, 38284), (132, 38236), (142, 38227), (166, 38191), (177, 38149), (183, 38128),

Gene: Rockabye_69 Start: 29857, Stop: 30210, Start Num: 92

Candidate Starts for Rockabye_69:

(Start: 92 @29857 has 1 MA's), (170, 30079),

Gene: Romm_58 Start: 38320, Stop: 38039, Start Num: 94

Candidate Starts for Romm_58:

(72, 38362), (Start: 84 @38335 has 6 MA's), (Start: 86 @38332 has 12 MA's), (Start: 94 @38320 has 20 MA's), (114, 38281), (115, 38278), (128, 38245), (132, 38233), (142, 38224), (177, 38146), (183, 38125), (186, 38110),

Gene: SJReid_70 Start: 30780, Stop: 31085, Start Num: 92

Candidate Starts for SJReid_70:

(Start: 92 @30780 has 1 MA's),

Gene: Saal_94 Start: 53731, Stop: 54012, Start Num: 91

Candidate Starts for Saal_94:

(17, 53320), (20, 53341), (21, 53362), (25, 53392), (Start: 91 @53731 has 39 MA's), (114, 53776), (125, 53794), (177, 53911),

Gene: SadLad_63 Start: 46437, Stop: 46174, Start Num: 96

Candidate Starts for SadLad_63:

(Start: 96 @46437 has 2 MA's), (106, 46410), (122, 46389), (177, 46278), (186, 46242), (194, 46185),

Gene: Sandalphon_96 Start: 54715, Stop: 55005, Start Num: 85

Candidate Starts for Sandalphon_96:

(Start: 85 @54715 has 1 MA's), (114, 54769), (125, 54787), (177, 54904),

Gene: Schnauzer_56 Start: 36197, Stop: 36685, Start Num: 49

Candidate Starts for Schnauzer_56:

(Start: 49 @36197 has 5 MA's), (52, 36233), (Start: 64 @36287 has 5 MA's), (134, 36440), (135, 36443), (146, 36470), (177, 36581), (179, 36587), (194, 36674),

Gene: ScoobyDoobyDoo_233 Start: 134075, Stop: 134443, Start Num: 86

Candidate Starts for ScoobyDoobyDoo_233:

(Start: 86 @134075 has 12 MA's), (161, 134234), (179, 134303), (184, 134321), (193, 134387), (197, 134414),

Gene: Seabiscuit_12 Start: 6693, Stop: 7034, Start Num: 80

Candidate Starts for Seabiscuit_12:

(Start: 80 @6693 has 1 MA's), (Start: 94 @6720 has 20 MA's), (114, 6759), (124, 6768), (151, 6837), (170, 6912), (186, 6972),

Gene: Sephiroth_114 Start: 64560, Stop: 64826, Start Num: 121

Candidate Starts for Sephiroth_114:

(66, 64443), (Start: 121 @64560 has 4 MA's), (180, 64734), (193, 64815),

Gene: SeresaTree_71 Start: 55390, Stop: 55779, Start Num: 65

Candidate Starts for SeresaTree_71:

(Start: 65 @55390 has 9 MA's), (104, 55477), (108, 55486), (136, 55558), (139, 55564), (188, 55741), (191, 55750),

Gene: Sham_67 Start: 56064, Stop: 56453, Start Num: 65

Candidate Starts for Sham_67:

(Start: 65 @56064 has 9 MA's), (73, 56091), (139, 56238), (191, 56424),

Gene: ShiLan_99 Start: 55748, Stop: 56029, Start Num: 91

Candidate Starts for ShiLan_99:

(17, 55337), (20, 55358), (21, 55379), (25, 55409), (Start: 91 @55748 has 39 MA's), (114, 55793), (125, 55811), (177, 55928), (186, 55964),

Gene: Shocker_3 Start: 902, Stop: 1168, Start Num: 93

Candidate Starts for Shocker_3:

(Start: 93 @902 has 1 MA's), (122, 956), (177, 1067),

Gene: ShowerHandel_97 Start: 53013, Stop: 53294, Start Num: 91

Candidate Starts for ShowerHandel_97:

(17, 52602), (20, 52623), (21, 52644), (25, 52674), (Start: 91 @53013 has 39 MA's), (114, 53058), (125, 53076), (177, 53193),

Gene: SilentRX_7 Start: 2575, Stop: 2988, Start Num: 74

Candidate Starts for SilentRX_7:

(Start: 74 @2575 has 4 MA's), (114, 2665), (152, 2764), (157, 2782), (185, 2878),

Gene: Slagathor_11 Start: 6591, Stop: 6905, Start Num: 94

Candidate Starts for Slagathor_11:

(Start: 94 @6591 has 20 MA's), (114, 6630), (124, 6639), (151, 6708), (170, 6783), (186, 6843),

Gene: Smurph_55 Start: 36197, Stop: 36685, Start Num: 49

Candidate Starts for Smurph_55:

(Start: 49 @36197 has 5 MA's), (52, 36233), (Start: 64 @36287 has 5 MA's), (134, 36440), (135, 36443), (146, 36470), (177, 36581), (179, 36587), (194, 36674),

Gene: SoilAssassin_55 Start: 39034, Stop: 39414, Start Num: 70

Candidate Starts for SoilAssassin_55:

(Start: 70 @39034 has 3 MA's), (100, 39088), (154, 39217), (164, 39253), (169, 39280), (170, 39283), (179, 39313), (184, 39331), (186, 39343), (194, 39400),

Gene: SpeedDemon_540 Start: 45518, Stop: 45787, Start Num: 89

Candidate Starts for SpeedDemon_540:

(Start: 89 @45518 has 6 MA's), (114, 45566), (170, 45662), (177, 45686),

Gene: Spoonbill_96 Start: 51661, Stop: 51942, Start Num: 91

Candidate Starts for Spoonbill_96:

(17, 51250), (20, 51271), (21, 51292), (25, 51322), (Start: 91 @51661 has 39 MA's), (114, 51706), (125, 51724), (177, 51841),

Gene: Squee_11 Start: 7115, Stop: 7429, Start Num: 94

Candidate Starts for Squee_11:

(Start: 94 @7115 has 20 MA's), (114, 7154), (151, 7232), (164, 7277),

Gene: Squiddly_103 Start: 56800, Stop: 57090, Start Num: 89

Candidate Starts for Squiddly_103:

(46, 56620), (47, 56623), (60, 56704), (76, 56770), (Start: 89 @56800 has 6 MA's), (146, 56917), (171, 56971), (186, 57028),

Gene: StAugustine_144 Start: 85407, Stop: 85078, Start Num: 71

Candidate Starts for StAugustine_144:

(Start: 71 @85407 has 2 MA's), (99, 85350), (154, 85212), (160, 85188), (175, 85140),

Gene: Stellammi_137 Start: 61212, Stop: 61520, Start Num: 88

Candidate Starts for Stellammi_137:

(81, 61200), (Start: 88 @61212 has 3 MA's), (114, 61263), (177, 61413),

Gene: Sunfish_12 Start: 3876, Stop: 4208, Start Num: 94

Candidate Starts for Sunfish_12:

(42, 3663), (Start: 94 @3876 has 20 MA's), (119, 3927), (129, 3951), (150, 4002), (169, 4071), (186, 4134),

Gene: SwagPiggett_98 Start: 54867, Stop: 55148, Start Num: 91

Candidate Starts for SwagPiggett_98:

(17, 54456), (20, 54477), (21, 54498), (25, 54528), (Start: 91 @54867 has 39 MA's), (114, 54912), (125, 54930), (177, 55047),

Gene: Switzer_11 Start: 6599, Stop: 6913, Start Num: 94

Candidate Starts for Switzer_11:

(Start: 80 @6572 has 1 MA's), (Start: 94 @6599 has 20 MA's), (114, 6638), (124, 6647), (151, 6716), (170, 6791), (186, 6851),

Gene: Syleon_119 Start: 65342, Stop: 65608, Start Num: 121

Candidate Starts for Syleon_119:

(66, 65225), (Start: 121 @65342 has 4 MA's), (180, 65516), (193, 65597),

Gene: Tempo_56 Start: 38215, Stop: 37919, Start Num: 86

Candidate Starts for Tempo_56:

(72, 38245), (Start: 84 @38218 has 6 MA's), (Start: 86 @38215 has 12 MA's), (Start: 94 @38203 has 20 MA's), (Start: 103 @38179 has 3 MA's), (114, 38164), (132, 38116), (142, 38107), (166, 38071), (177, 38029), (183, 38008),

Gene: Tortellini_63 Start: 43457, Stop: 43750, Start Num: 83

Candidate Starts for Tortellini_63:

(27, 43202), (30, 43223), (43, 43301), (51, 43364), (61, 43400), (Start: 83 @43457 has 1 MA's), (114, 43511), (166, 43607), (177, 43646), (184, 43670), (194, 43739),

Gene: TunaTartare_69 Start: 56371, Stop: 56772, Start Num: 65

Candidate Starts for TunaTartare_69:

(Start: 65 @56371 has 9 MA's), (114, 56482), (125, 56509), (126, 56515), (136, 56545), (172, 56665), (185, 56704),

Gene: U2_10 Start: 6601, Stop: 6915, Start Num: 94

Candidate Starts for U2_10:

(Start: 80 @6574 has 1 MA's), (Start: 94 @6601 has 20 MA's), (114, 6640), (124, 6649), (151, 6718), (170, 6793), (186, 6853),

Gene: Untouchable_2 Start: 479, Stop: 808, Start Num: 84

Candidate Starts for Untouchable_2:

(Start: 84 @479 has 6 MA's), (122, 545), (169, 686), (177, 713), (181, 725),

Gene: Vivum_98 Start: 55102, Stop: 55383, Start Num: 91

Candidate Starts for Vivum_98:

(17, 54691), (20, 54712), (21, 54733), (25, 54763), (Start: 91 @55102 has 39 MA's), (114, 55147), (125, 55165), (177, 55282),

Gene: Vordorf_53 Start: 39065, Stop: 39475, Start Num: 62

Candidate Starts for Vordorf_53:

(12, 38624), (23, 38795), (44, 38936), (55, 39017), (57, 39023), (62, 39065), (87, 39131), (127, 39221), (135, 39242), (157, 39278),

Gene: Whouxphf_100 Start: 54173, Stop: 54454, Start Num: 91

Candidate Starts for Whouxphf_100:

(17, 53762), (20, 53783), (21, 53804), (25, 53834), (Start: 91 @54173 has 39 MA's), (114, 54218), (125, 54236), (177, 54353),

Gene: Wojtek_85 Start: 64679, Stop: 65014, Start Num: 75

Candidate Starts for Wojtek_85:

(Start: 75 @64679 has 2 MA's), (79, 64688), (82, 64697), (Start: 86 @64706 has 12 MA's), (114, 64754), (177, 64907), (184, 64931), (194, 65000),

Gene: Xerxes_55 Start: 36284, Stop: 36682, Start Num: 64

Candidate Starts for Xerxes_55:

(Start: 49 @36194 has 5 MA's), (52, 36230), (Start: 64 @36284 has 5 MA's), (134, 36437), (135, 36440), (146, 36467), (177, 36578), (179, 36584), (194, 36671),

Gene: Yorick_92 Start: 54408, Stop: 54689, Start Num: 91

Candidate Starts for Yorick_92:

(17, 53997), (20, 54018), (21, 54039), (25, 54069), (Start: 91 @54408 has 39 MA's), (114, 54453), (125, 54471), (177, 54588),

Gene: Yvonnetastic_136 Start: 75890, Stop: 76258, Start Num: 90

Candidate Starts for Yvonnetastic_136:

(Start: 90 @75890 has 6 MA's), (Start: 103 @75920 has 3 MA's), (109, 75935), (113, 75941), (122, 75965), (140, 76016), (176, 76136), (177, 76139), (184, 76163), (195, 76244),

Gene: Zizzle_99 Start: 55058, Stop: 55339, Start Num: 91

Candidate Starts for Zizzle_99:

(17, 54647), (20, 54668), (21, 54689), (25, 54719), (Start: 91 @55058 has 39 MA's), (114, 55103), (125, 55121), (177, 55238), (186, 55274),