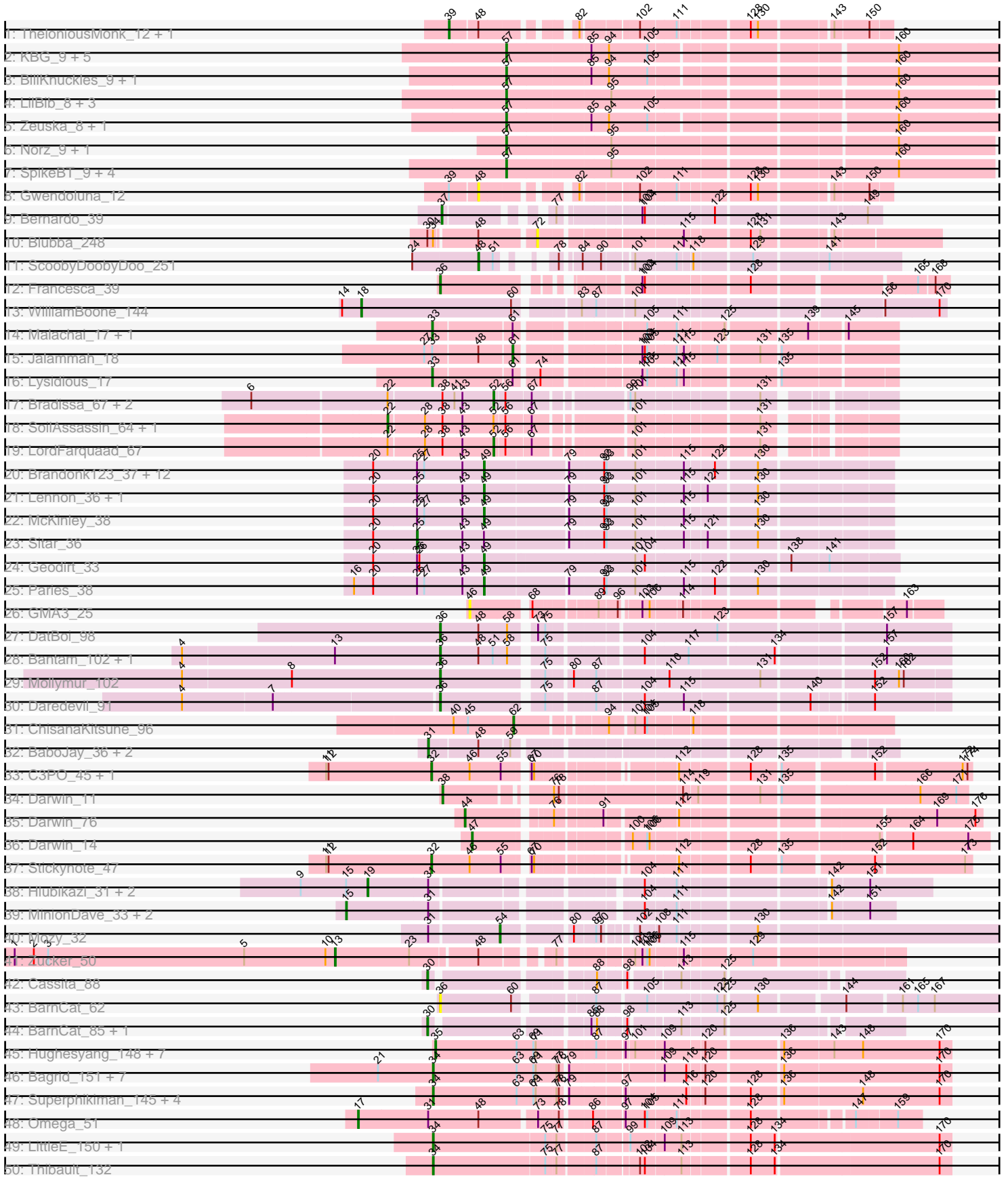
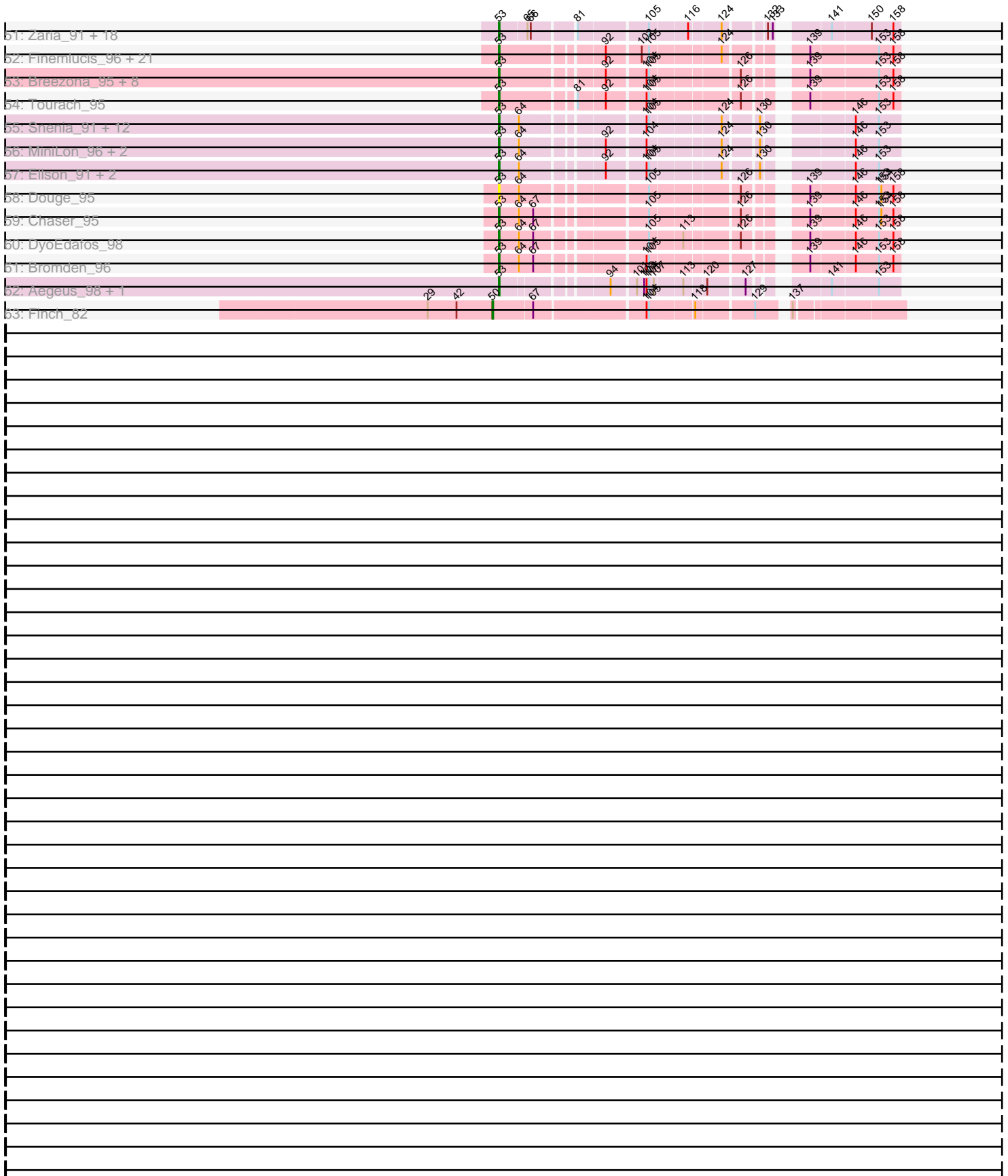


Pham 171225



Pham 171225



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 171225 Report

This analysis was run 07/10/24 on database version 566.

Pham number 171225 has 188 members, 17 are drafts.

Phages represented in each track:

- Track 1 : TheloniousMonk_12, Target_12
- Track 2 : KBG_9, Solon_8, Gwendoluna_9, Graduation_10, Nerujay_9, Squee_8
- Track 3 : BillKnuckles_9, DD5_9
- Track 4 : LilBib_8, Papez_9, Kenmech_10, TheloniousMonk_9
- Track 5 : Zeuska_8, QTRlifeCrisis_8
- Track 6 : Norz_9, Monet_9
- Track 7 : SpikeBT_9, Hermia_10, Treddle_9, Buttons_9, Edtherson_9
- Track 8 : Gwendoluna_12
- Track 9 : Bernardo_39
- Track 10 : Blubba_248
- Track 11 : ScoobyDoobyDoo_251
- Track 12 : Francesca_39
- Track 13 : WilliamBoone_144
- Track 14 : Malachai_17, Begonia_17
- Track 15 : Jalammah_18
- Track 16 : Lysidious_17
- Track 17 : Bradissa_67, Lilas_67, EnalisNailo_66
- Track 18 : SoilAssassin_64, Attis_64
- Track 19 : LordFarquaad_67
- Track 20 : Brandonk123_37, Love_39, BobBob_33, Fosterous_34, Nordenberg_30, Sedona_36, Charming_36, Galadriel_36, Vivi2_38, Rofo_36, Angelicage_34, Tangent_36, Bibwit_35
- Track 21 : Lennon_36, Affeca_34
- Track 22 : McKinley_38
- Track 23 : Sitar_36
- Track 24 : Geodirt_33
- Track 25 : Paries_38
- Track 26 : GMA3_25
- Track 27 : DatBoi_98
- Track 28 : Bantam_102, SpeedDemon_1040
- Track 29 : Mollymur_102
- Track 30 : Daredevil_91
- Track 31 : ChisanaKitsune_96
- Track 32 : BaboJay_36, Goku_37, Eureka_37
- Track 33 : C3PO_45, Cruella_45
- Track 34 : Darwin_11
- Track 35 : Darwin_76

- Track 36 : Darwin_14
- Track 37 : Stickynote_47
- Track 38 : Hlubikazi_31, Mandlovu_31, Strokeseat_31
- Track 39 : MinionDave_33, Galactic_32, Ramsey_33
- Track 40 : Mozy_32
- Track 41 : Zucker_50
- Track 42 : Cassita_88
- Track 43 : BarnCat_62
- Track 44 : BarnCat_85, LeeroyJenkins_94
- Track 45 : Hughesyang_148, Wanda_148, Zelink_143, Kalah2_140, Minerva_148, Phoebus_149, ThreeRngTarjay_144, Bobby_139
- Track 46 : Bagrid_151, Optimus_141, Duke13_146, HokkenD_142, BAKA_150, Gonephishing_141, Klein_147, EricMillard_142
- Track 47 : Superphikiman_145, Ariel_147, Courthouse_143, Beem_151, Hannaconda_141
- Track 48 : Omega_51
- Track 49 : LittleE_150, Omega_154
- Track 50 : Thibault_132
- Track 51 : Zaria_91, AvadaKedavra_91, Wyatt2_92, Appletree2_90, LeBron_90, Rose5_92, UPIE_90, Silverleaf_90, Tyson_92, DirkDirk_88, Enceladus_88, Acquire49_91, CicholasNage_88, JoeDirt_92, OhShagHennessy_87, Halena_88, MAckerman_87, Calm_92, Wamburggrxpress_90
- Track 52 : Finemlucis_96, MkaliMitinis3_97, LilDestine_93, Baoshan_92, Bazzle_92, Loadrie_94, BigCheese_95, Archie_92, GuuelaD_92, Kahlid_94, Lewan_96, Zakai_96, Hafay_96, Nicholasp3_95, Crossroads_95, Vatrix_93, Wilder_96, ZhongYanYuan_92, Gardann_95, Rumpelstiltskin_91, Claus_94, BobsGarage_94
- Track 53 : Breezona_95, Faith1_95, DrSeegs_94, Winky_95, Itos_95, Wigglewiggles_95, Netyap_94, Gabriela_95, Miley16_95
- Track 54 : Tourach_95
- Track 55 : Snenia_91, Clautastrophe_90, Moostard_89, Jubie_91, Finnry_92, Jobypre_93, Kingsolomon_90, Nicholas_90, MsGreen_92, Bellis_90, Samty_91, Lumos_92, Whirlwind_93
- Track 56 : MiniLon_96, MiniMac_96, Lolly9_91
- Track 57 : Ellson_91, Krypton555_94, DuncansLeg_92
- Track 58 : Douge_95
- Track 59 : Chaser_95
- Track 60 : DyoEdafos_98
- Track 61 : Bromden_96
- Track 62 : Aegeus_98, Baudelaire_98
- Track 63 : Finch_82

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

The start number called the most often in the published annotations is 53, it was called in 67 of the 171 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Acquire49_91, Aegeus_98, Appletree2_90, Archie_92, AvadaKedavra_91, Baoshan_92, Baudelaire_98, Bazzle_92, Bellis_90, BigCheese_95, BobsGarage_94,

Breezona_95, Bromden_96, Calm_92, Chaser_95, CicholasNage_88, Claus_94, Clautastrophe_90, Crossroads_95, DirkDirk_88, Douge_95, DrSeegs_94, DuncansLeg_92, DyoEdafos_98, Ellson_91, Enceladus_88, Faith1_95, Finemlucis_96, Finnry_92, Gabriela_95, Gardann_95, GuuelaD_92, Hafay_96, Halena_88, Itos_95, Jobypre_93, JoeDirt_92, Jubie_91, Kahlid_94, Kingsolomon_90, Krypton555_94, LeBron_90, Lewan_96, LilDestine_93, Loadrie_94, Lolly9_91, Lumos_92, MAckerman_87, Miley16_95, MiniLon_96, MiniMac_96, MkaliMitinis3_97, Moostard_89, MsGreen_92, Netyap_94, Nicholas_90, Nicholasp3_95, OhShagHennessy_87, Rose5_92, Rumpelstiltskin_91, Samty_91, Silverleaf_90, Snenia_91, Tourach_95, Tyson_92, UPIE_90, Vetrix_93, Wamburggrxpress_90, Whirlwind_93, Wigglewiggle_95, Wilder_96, Winky_95, Wyatt2_92, Zakai_96, Zaria_91, ZhongYanYuan_92,

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

-

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

- Affeca_34, Angelicage_34, Ariel_147, Attis_64, BAKA_150, BaboJay_36, Bagrid_151, Bantam_102, BarnCat_62, BarnCat_85, Beem_151, Begonia_17, Bernardo_39, Bibwit_35, BillKnuckles_9, Blubba_248, BobBob_33, Bobby_139, Bradissa_67, Brandonk123_37, Buttons_9, C3PO_45, Cassita_88, Charming_36, ChisanaKitsune_96, Courthouse_143, Cruella_45, DD5_9, Daredevil_91, Darwin_11, Darwin_14, Darwin_76, DatBoi_98, Duke13_146, Edtherson_9, EnalisNailo_66, EricMillard_142, Eureka_37, Finch_82, Fosterous_34, Francesca_39, GMA3_25, Galactic_32, Galadriel_36, Geodirt_33, Goku_37, Gonephishing_141, Graduation_10, Gwendoluna_12, Gwendoluna_9, Hannaconda_141, Hermia_10, Hlubikazi_31, HokkenD_142, Hughesyang_148, Jalammah_18, KBG_9, Kalah2_140, Kenmech_10, Klein_147, LeeroyJenkins_94, Lennon_36, LilBib_8, Lilas_67, LittleE_150, LordFarquaad_67, Love_39, Lysidious_17, Malachai_17, Mandlovu_31, McKinley_38, Minerva_148, MinionDave_33, Mollymur_102, Monet_9, Mozy_32, Nerujay_9, Nordenberg_30, Norz_9, Omega_154, Omega_51, Optimus_141, Papez_9, Paries_38, Phoebus_149, QTRlifeCrisis_8, Ramsey_33, Rofo_36, ScoobyDoobyDoo_251, Sedona_36, Sitar_36, SoilAssassin_64, Solon_8, SpeedDemon_1040, SpikeBT_9, Squee_8, Stickynote_47, Strokeseat_31, Superphikiman_145, Tangent_36, Target_12, TheloniousMonk_12, TheloniousMonk_9, Thibault_132, ThreeRngTarjay_144, Treddle_9, Vivi2_38, Wanda_148, WilliamBoone_144, Zelink_143, Zeuska_8, Zucker_50,

Summary by start number:

Start 13:

- Found in 3 of 188 (1.6%) of genes in pham
- Manual Annotations of this start: 1 of 171
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Zucker_50 (FN),

Start 15:

- Found in 6 of 188 (3.2%) of genes in pham
- Manual Annotations of this start: 3 of 171
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Galactic_32 (F1), MinionDave_33 (F1), Ramsey_33 (F1),

Start 17:

- Found in 1 of 188 (0.5%) of genes in pham
- Manual Annotations of this start: 1 of 171
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Omega_51 (J),

Start 18:

- Found in 1 of 188 (0.5%) of genes in pham
- Manual Annotations of this start: 1 of 171
- Called 100.0% of time when present
- Phage (with cluster) where this start called: WilliamBoone_144 (CQ1),

Start 19:

- Found in 3 of 188 (1.6%) of genes in pham
- Manual Annotations of this start: 3 of 171
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Hlubikazi_31 (F1), Mandlovu_31 (F1), Strokeseat_31 (F1),

Start 22:

- Found in 6 of 188 (3.2%) of genes in pham
- Manual Annotations of this start: 2 of 171
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Attis_64 (CZ2), SoilAssassin_64 (CZ2),

Start 25:

- Found in 19 of 188 (10.1%) of genes in pham
- Manual Annotations of this start: 1 of 171
- Called 5.3% of time when present
- Phage (with cluster) where this start called: Sitar_36 (DE1),

Start 30:

- Found in 4 of 188 (2.1%) of genes in pham
- Manual Annotations of this start: 2 of 171
- Called 75.0% of time when present
- Phage (with cluster) where this start called: BarnCat_85 (GB), Cassita_88 (GB), LeeroyJenkins_94 (GB),

Start 31:

- Found in 11 of 188 (5.9%) of genes in pham
- Manual Annotations of this start: 3 of 171
- Called 27.3% of time when present
- Phage (with cluster) where this start called: BaboJay_36 (E), Eureka_37 (E), Goku_37 (E),

Start 32:

- Found in 3 of 188 (1.6%) of genes in pham
- Manual Annotations of this start: 3 of 171
- Called 100.0% of time when present
- Phage (with cluster) where this start called: C3PO_45 (EN), Cruella_45 (EN), Stickynote_47 (EN),

Start 33:

- Found in 4 of 188 (2.1%) of genes in pham
- Manual Annotations of this start: 3 of 171
- Called 75.0% of time when present
- Phage (with cluster) where this start called: Begonia_17 (CV), Lysidious_17 (CV), Malachai_17 (CV),

Start 34:

- Found in 17 of 188 (9.0%) of genes in pham
- Manual Annotations of this start: 14 of 171
- Called 94.1% of time when present
- Phage (with cluster) where this start called: Ariel_147 (J), BAKA_150 (J), Bagrid_151 (J), Beem_151 (J), Courthouse_143 (J), Duke13_146 (J), EricMillard_142 (J), Gonephishing_141 (J), Hannaconda_141 (J), HokkenD_142 (J), Klein_147 (J), LittleE_150 (J), Omega_154 (J), Optimus_141 (J), Superphikiman_145 (J), Thibault_132 (J),

Start 35:

- Found in 8 of 188 (4.3%) of genes in pham
- Manual Annotations of this start: 8 of 171
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Bobby_139 (J), Hughesyang_148 (J), Kalah2_140 (J), Minerva_148 (J), Phoebus_149 (J), ThreeRngTarjay_144 (J), Wanda_148 (J), Zelink_143 (J),

Start 36:

- Found in 7 of 188 (3.7%) of genes in pham
- Manual Annotations of this start: 6 of 171
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Bantam_102 (DL), BarnCat_62 (GB), Daredevil_91 (DL), DatBoi_98 (DL), Francesca_39 (CG), Mollymur_102 (DL), SpeedDemon_1040 (DL),

Start 37:

- Found in 1 of 188 (0.5%) of genes in pham
- Manual Annotations of this start: 1 of 171
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Bernardo_39 (B3),

Start 38:

- Found in 7 of 188 (3.7%) of genes in pham
- Manual Annotations of this start: 1 of 171
- Called 14.3% of time when present
- Phage (with cluster) where this start called: Darwin_11 (EN),

Start 39:

- Found in 3 of 188 (1.6%) of genes in pham
- Manual Annotations of this start: 2 of 171
- Called 66.7% of time when present
- Phage (with cluster) where this start called: Target_12 (A1), TheloniousMonk_12 (A1),

Start 44:

- Found in 1 of 188 (0.5%) of genes in pham

- Manual Annotations of this start: 1 of 171
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Darwin_76 (EN),

Start 46:

- Found in 4 of 188 (2.1%) of genes in pham
- No Manual Annotations of this start.
- Called 25.0% of time when present
- Phage (with cluster) where this start called: GMA3_25 (DF2),

Start 47:

- Found in 1 of 188 (0.5%) of genes in pham
- Manual Annotations of this start: 1 of 171
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Darwin_14 (EN),

Start 48:

- Found in 14 of 188 (7.4%) of genes in pham
- Manual Annotations of this start: 1 of 171
- Called 14.3% of time when present
- Phage (with cluster) where this start called: Gwendoluna_12 (A1), ScoobyDoobyDoo_251 (C2),

Start 49:

- Found in 19 of 188 (10.1%) of genes in pham
- Manual Annotations of this start: 18 of 171
- Called 94.7% of time when present
- Phage (with cluster) where this start called: Affeca_34 (DE1), Angelicage_34 (DE1), Bibwit_35 (DE1), BobBob_33 (DE1), Brandonk123_37 (DE1), Charming_36 (DE1), Fosterous_34 (DE1), Galadriel_36 (DE1), Geodirt_33 (DE1), Lennon_36 (DE1), Love_39 (DE1), McKinley_38 (DE1), Nordenberg_30 (DE1), Paries_38 (DE1), Rofo_36 (DE1), Sedona_36 (DE1), Tangent_36 (DE1), Vivi2_38 (DE1),

Start 50:

- Found in 1 of 188 (0.5%) of genes in pham
- Manual Annotations of this start: 1 of 171
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Finch_82 (singleton),

Start 52:

- Found in 6 of 188 (3.2%) of genes in pham
- Manual Annotations of this start: 4 of 171
- Called 66.7% of time when present
- Phage (with cluster) where this start called: Bradissa_67 (CY1), EnalisNailo_66 (CY1), Lilas_67 (CY1), LordFarquaad_67 (CZ2),

Start 53:

- Found in 76 of 188 (40.4%) of genes in pham
- Manual Annotations of this start: 67 of 171
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Acquire49_91 (L1), Aegeus_98 (L5), Appletree2_90 (L1), Archie_92 (L2), AvadaKedavra_91 (L1), Baoshan_92 (L2), Baudelaire_98 (L5), Bazzle_92 (L2), Bellis_90 (L3), BigCheese_95 (L2),

BobsGarage_94 (L2), Breezona_95 (L2), Bromden_96 (L4), Calm_92 (L1), Chaser_95 (L4), CicholasNage_88 (L1), Claus_94 (L2), Clautastrophe_90 (L3), Crossroads_95 (L2), DirkDirk_88 (L1), Douge_95 (L4), DrSeegs_94 (L2), DuncansLeg_92 (L3), DyoEdafos_98 (L4), Ellson_91 (L3), Enceladus_88 (L1), Faith1_95 (L2), Finemlucis_96 (L2), Finnry_92 (L3), Gabriela_95 (L2), Gardann_95 (L2), GuuelaD_92 (L2), Hafay_96 (L2), Halena_88 (L1), Itos_95 (L2), Jobypre_93 (L3), JoeDirt_92 (L1), Jubie_91 (L3), Kahlid_94 (L2), Kingsolomon_90 (L3), Krypton555_94 (L3), LeBron_90 (L1), Lewan_96 (L2), LilDestine_93 (L2), Loadrie_94 (L2), Lolly9_91 (L3), Lumos_92 (L3), MAckerman_87 (L1), Miley16_95 (L2), MiniLon_96 (L3), MiniMac_96 (L3), MkaliMitinis3_97 (L2), Moostard_89 (L3), MsGreen_92 (L3), Netyap_94 (L2), Nicholas_90 (L3), Nicholasp3_95 (L2), OhShagHennessy_87 (L1), Rose5_92 (L1), Rumpelstiltskin_91 (L2), Samty_91 (L3), Silverleaf_90 (L1), Snenia_91 (L3), Tourach_95 (L2), Tyson_92 (L1), UPIE_90 (L1), Vetrux_93 (L2), Wamburggrxpress_90 (L1), Whirlwind_93 (L3), Wigglewiggle_95 (L2), Wilder_96 (L2), Winky_95 (L2), Wyatt2_92 (L1), Zakai_96 (L2), Zaria_91 (L1), ZhongYanYuan_92 (L2),

Start 54:

- Found in 1 of 188 (0.5%) of genes in pham
- Manual Annotations of this start: 1 of 171
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Mozy_32 (F1),

Start 57:

- Found in 21 of 188 (11.2%) of genes in pham
- Manual Annotations of this start: 20 of 171
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BillKnuckles_9 (A1), Buttons_9 (A1), DD5_9 (A1), Edtherson_9 (A1), Graduation_10 (A1), Gwendoluna_9 (A1), Hermia_10 (A1), KBG_9 (A1), Kenmech_10 (A1), LilBib_8 (A1), Monet_9 (A1), Nerujay_9 (A1), Norz_9 (A1), Papez_9 (A1), QTRlifeCrisis_8 (A1), Solon_8 (A1), SpikeBT_9 (A1), Squee_8 (A1), TheloniousMonk_9 (A1), Treddle_9 (A1), Zeuska_8 (A1),

Start 61:

- Found in 4 of 188 (2.1%) of genes in pham
- Manual Annotations of this start: 1 of 171
- Called 25.0% of time when present
- Phage (with cluster) where this start called: Jalammah_18 (CV),

Start 62:

- Found in 1 of 188 (0.5%) of genes in pham
- Manual Annotations of this start: 1 of 171
- Called 100.0% of time when present
- Phage (with cluster) where this start called: ChisanaKitsune_96 (DQ),

Start 72:

- Found in 1 of 188 (0.5%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Blubba_248 (C1),

Summary by clusters:

There are 25 clusters represented in this pham: singleton, CZ2, DL, DF2, FN, DQ, CV, A1, C2, C1, CY1, EN, E, J, CG, L4, L5, L2, L3, L1, CQ1, F1, DE1, B3, GB,

Info for manual annotations of cluster A1:

- Start number 39 was manually annotated 2 times for cluster A1.
- Start number 57 was manually annotated 20 times for cluster A1.

Info for manual annotations of cluster B3:

- Start number 37 was manually annotated 1 time for cluster B3.

Info for manual annotations of cluster C2:

- Start number 48 was manually annotated 1 time for cluster C2.

Info for manual annotations of cluster CG:

- Start number 36 was manually annotated 1 time for cluster CG.

Info for manual annotations of cluster CQ1:

- Start number 18 was manually annotated 1 time for cluster CQ1.

Info for manual annotations of cluster CV:

- Start number 33 was manually annotated 3 times for cluster CV.
- Start number 61 was manually annotated 1 time for cluster CV.

Info for manual annotations of cluster CY1:

- Start number 52 was manually annotated 3 times for cluster CY1.

Info for manual annotations of cluster CZ2:

- Start number 22 was manually annotated 2 times for cluster CZ2.
- Start number 52 was manually annotated 1 time for cluster CZ2.

Info for manual annotations of cluster DE1:

- Start number 25 was manually annotated 1 time for cluster DE1.
- Start number 49 was manually annotated 18 times for cluster DE1.

Info for manual annotations of cluster DL:

- Start number 36 was manually annotated 5 times for cluster DL.

Info for manual annotations of cluster DQ:

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

Info for manual annotations of cluster E:

- Start number 31 was manually annotated 3 times for cluster E.

Info for manual annotations of cluster EN:

- Start number 32 was manually annotated 3 times for cluster EN.
- Start number 38 was manually annotated 1 time for cluster EN.
- Start number 44 was manually annotated 1 time for cluster EN.
- Start number 47 was manually annotated 1 time for cluster EN.

Info for manual annotations of cluster F1:

- Start number 15 was manually annotated 3 times for cluster F1.

- Start number 19 was manually annotated 3 times for cluster F1.
- Start number 54 was manually annotated 1 time for cluster F1.

Info for manual annotations of cluster FN:

- Start number 13 was manually annotated 1 time for cluster FN.

Info for manual annotations of cluster GB:

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

Info for manual annotations of cluster J:

- Start number 17 was manually annotated 1 time for cluster J.
- Start number 34 was manually annotated 14 times for cluster J.
- Start number 35 was manually annotated 8 times for cluster J.

Info for manual annotations of cluster L1:

- Start number 53 was manually annotated 18 times for cluster L1.

Info for manual annotations of cluster L2:

- Start number 53 was manually annotated 28 times for cluster L2.

Info for manual annotations of cluster L3:

- Start number 53 was manually annotated 16 times for cluster L3.

Info for manual annotations of cluster L4:

- Start number 53 was manually annotated 3 times for cluster L4.

Info for manual annotations of cluster L5:

- Start number 53 was manually annotated 2 times for cluster L5.

Gene Information:

Gene: Acquire49_91 Start: 57365, Stop: 57775, Start Num: 53

Candidate Starts for Acquire49_91:

(Start: 53 @57365 has 67 MA's), (65, 57395), (66, 57398), (81, 57443), (105, 57521), (116, 57563), (124, 57599), (132, 57641), (133, 57647), (141, 57695), (150, 57740), (158, 57767),

Gene: Aegeus_98 Start: 59877, Stop: 60281, Start Num: 53

Candidate Starts for Aegeus_98:

(Start: 53 @59877 has 67 MA's), (94, 59988), (101, 60015), (103, 60024), (104, 60027), (105, 60030), (107, 60036), (113, 60066), (120, 60090), (127, 60132), (141, 60201), (153, 60255),

Gene: Affeca_34 Start: 32900, Stop: 32427, Start Num: 49

Candidate Starts for Affeca_34:

(20, 33038), (Start: 25 @32984 has 1 MA's), (43, 32927), (Start: 49 @32900 has 18 MA's), (79, 32801), (92, 32759), (93, 32756), (101, 32720), (115, 32663), (121, 32639), (130, 32582),

Gene: Angelicage_34 Start: 33318, Stop: 32845, Start Num: 49

Candidate Starts for Angelicage_34:

(20, 33456), (Start: 25 @33402 has 1 MA's), (27, 33393), (43, 33345), (Start: 49 @33318 has 18 MA's), (79, 33219), (92, 33177), (93, 33174), (101, 33138), (115, 33081), (122, 33048), (130, 33000),

Gene: Appletree2_90 Start: 57125, Stop: 57535, Start Num: 53

Candidate Starts for Appletree2_90:

(Start: 53 @57125 has 67 MA's), (65, 57155), (66, 57158), (81, 57203), (105, 57281), (116, 57323), (124, 57359), (132, 57401), (133, 57407), (141, 57455), (150, 57500), (158, 57527),

Gene: Archie_92 Start: 59049, Stop: 59462, Start Num: 53

Candidate Starts for Archie_92:

(Start: 53 @59049 has 67 MA's), (92, 59160), (102, 59199), (105, 59208), (124, 59286), (139, 59358), (153, 59436), (158, 59454),

Gene: Ariel_147 Start: 75437, Stop: 76039, Start Num: 34

Candidate Starts for Ariel_147:

(Start: 34 @75437 has 14 MA's), (63, 75542), (69, 75563), (71, 75566), (77, 75590), (78, 75593), (79, 75599), (97, 75659), (116, 75728), (120, 75746), (128, 75797), (136, 75833), (148, 75929), (170, 76025),

Gene: Attis_64 Start: 43105, Stop: 43650, Start Num: 22

Candidate Starts for Attis_64:

(Start: 22 @43105 has 2 MA's), (28, 43147), (Start: 38 @43168 has 1 MA's), (43, 43192), (Start: 52 @43231 has 4 MA's), (56, 43243), (67, 43273), (101, 43378), (131, 43516),

Gene: AvadaKedavra_91 Start: 57477, Stop: 57887, Start Num: 53

Candidate Starts for AvadaKedavra_91:

(Start: 53 @57477 has 67 MA's), (65, 57507), (66, 57510), (81, 57555), (105, 57633), (116, 57675), (124, 57711), (132, 57753), (133, 57759), (141, 57807), (150, 57852), (158, 57879),

Gene: BAKA_150 Start: 78761, Stop: 79363, Start Num: 34

Candidate Starts for BAKA_150:

(21, 78692), (Start: 34 @78761 has 14 MA's), (63, 78866), (69, 78887), (71, 78890), (77, 78914), (78, 78917), (79, 78923), (109, 79025), (116, 79052), (120, 79070), (136, 79157), (170, 79349),

Gene: BaboJay_36 Start: 33175, Stop: 32675, Start Num: 31

Candidate Starts for BaboJay_36:

(Start: 31 @33175 has 3 MA's), (Start: 48 @33118 has 1 MA's), (59, 33082),

Gene: Bagrid_151 Start: 79456, Stop: 80058, Start Num: 34

Candidate Starts for Bagrid_151:

(21, 79387), (Start: 34 @79456 has 14 MA's), (63, 79561), (69, 79582), (71, 79585), (77, 79609), (78, 79612), (79, 79618), (109, 79720), (116, 79747), (120, 79765), (136, 79852), (170, 80044),

Gene: Bantam_102 Start: 67594, Stop: 68172, Start Num: 36

Candidate Starts for Bantam_102:

(4, 67276), (Start: 13 @67462 has 1 MA's), (Start: 36 @67594 has 6 MA's), (Start: 48 @67642 has 1 MA's), (51, 67660), (58, 67678), (75, 67711), (104, 67813), (117, 67864), (134, 67966), (157, 68092),

Gene: Baoshan_92 Start: 59704, Stop: 60117, Start Num: 53

Candidate Starts for Baoshan_92:

(Start: 53 @59704 has 67 MA's), (92, 59815), (102, 59854), (105, 59863), (124, 59941), (139, 60013), (153, 60091), (158, 60109),

Gene: BarnCat_62 Start: 35513, Stop: 34857, Start Num: 36

Candidate Starts for BarnCat_62:

(Start: 36 @35513 has 6 MA's), (60, 35426), (87, 35345), (105, 35288), (123, 35210), (125, 35201), (130, 35165), (144, 35069), (161, 35006), (165, 34991), (167, 34970),

Gene: BarnCat_85 Start: 47542, Stop: 47033, Start Num: 30

Candidate Starts for BarnCat_85:

(Start: 30 @47542 has 2 MA's), (85, 47371), (88, 47365), (98, 47335), (113, 47281), (125, 47233),

Gene: Baudelaire_98 Start: 59877, Stop: 60281, Start Num: 53

Candidate Starts for Baudelaire_98:

(Start: 53 @59877 has 67 MA's), (94, 59988), (101, 60015), (103, 60024), (104, 60027), (105, 60030), (107, 60036), (113, 60066), (120, 60090), (127, 60132), (141, 60201), (153, 60255),

Gene: Bazzle_92 Start: 59605, Stop: 60018, Start Num: 53

Candidate Starts for Bazzle_92:

(Start: 53 @59605 has 67 MA's), (92, 59716), (102, 59755), (105, 59764), (124, 59842), (139, 59914), (153, 59992), (158, 60010),

Gene: Beem_151 Start: 80198, Stop: 80800, Start Num: 34

Candidate Starts for Beem_151:

(Start: 34 @80198 has 14 MA's), (63, 80303), (69, 80324), (71, 80327), (77, 80351), (78, 80354), (79, 80360), (97, 80420), (116, 80489), (120, 80507), (128, 80558), (136, 80594), (148, 80690), (170, 80786),

Gene: Begonia_17 Start: 10279, Stop: 10785, Start Num: 33

Candidate Starts for Begonia_17:

(Start: 33 @10279 has 3 MA's), (Start: 61 @10369 has 1 MA's), (105, 10504), (111, 10537), (125, 10588), (139, 10681), (145, 10723),

Gene: Bellis_90 Start: 59240, Stop: 59647, Start Num: 53

Candidate Starts for Bellis_90:

(Start: 53 @59240 has 67 MA's), (64, 59261), (104, 59390), (105, 59393), (124, 59471), (130, 59507), (146, 59594), (153, 59621),

Gene: Bernardo_39 Start: 36994, Stop: 37440, Start Num: 37

Candidate Starts for Bernardo_39:

(Start: 37 @36994 has 1 MA's), (77, 37090), (103, 37174), (104, 37177), (122, 37255), (149, 37423),

Gene: Bibwit_35 Start: 32719, Stop: 32246, Start Num: 49

Candidate Starts for Bibwit_35:

(20, 32857), (Start: 25 @32803 has 1 MA's), (27, 32794), (43, 32746), (Start: 49 @32719 has 18 MA's), (79, 32620), (92, 32578), (93, 32575), (101, 32539), (115, 32482), (122, 32449), (130, 32401),

Gene: BigCheese_95 Start: 59815, Stop: 60228, Start Num: 53

Candidate Starts for BigCheese_95:

(Start: 53 @59815 has 67 MA's), (92, 59926), (102, 59965), (105, 59974), (124, 60052), (139, 60124), (153, 60202), (158, 60220),

Gene: BillKnuckles_9 Start: 4709, Stop: 5290, Start Num: 57

Candidate Starts for BillKnuckles_9:

(Start: 57 @4709 has 20 MA's), (85, 4811), (94, 4832), (105, 4880), (160, 5159),

Gene: Blubba_248 Start: 148403, Stop: 148846, Start Num: 72

Candidate Starts for Blubba_248:

(Start: 30 @148286 has 2 MA's), (Start: 34 @148292 has 14 MA's), (Start: 48 @148340 has 1 MA's), (72, 148403), (115, 148559), (128, 148631), (131, 148643), (143, 148721),

Gene: BobBob_33 Start: 31999, Stop: 31526, Start Num: 49

Candidate Starts for BobBob_33:

(20, 32137), (Start: 25 @32083 has 1 MA's), (27, 32074), (43, 32026), (Start: 49 @31999 has 18 MA's), (79, 31900), (92, 31858), (93, 31855), (101, 31819), (115, 31762), (122, 31729), (130, 31681),

Gene: Bobby_139 Start: 80254, Stop: 80853, Start Num: 35

Candidate Starts for Bobby_139:

(Start: 35 @80254 has 8 MA's), (63, 80356), (69, 80377), (71, 80380), (87, 80443), (97, 80473), (101, 80482), (109, 80515), (120, 80560), (136, 80647), (143, 80707), (148, 80743), (170, 80839),

Gene: BobsGarage_94 Start: 59815, Stop: 60228, Start Num: 53

Candidate Starts for BobsGarage_94:

(Start: 53 @59815 has 67 MA's), (92, 59926), (102, 59965), (105, 59974), (124, 60052), (139, 60124), (153, 60202), (158, 60220),

Gene: Bradissa_67 Start: 46915, Stop: 47334, Start Num: 52

Candidate Starts for Bradissa_67:

(6, 46627), (Start: 22 @46789 has 2 MA's), (Start: 38 @46852 has 1 MA's), (41, 46867), (43, 46876), (Start: 52 @46915 has 4 MA's), (56, 46927), (67, 46957), (99, 47056), (101, 47062), (131, 47200),

Gene: Brandonk123_37 Start: 33065, Stop: 32592, Start Num: 49

Candidate Starts for Brandonk123_37:

(20, 33203), (Start: 25 @33149 has 1 MA's), (27, 33140), (43, 33092), (Start: 49 @33065 has 18 MA's), (79, 32966), (92, 32924), (93, 32921), (101, 32885), (115, 32828), (122, 32795), (130, 32747),

Gene: Breezona_95 Start: 59815, Stop: 60228, Start Num: 53

Candidate Starts for Breezona_95:

(Start: 53 @59815 has 67 MA's), (92, 59926), (104, 59971), (105, 59974), (126, 60070), (139, 60124), (153, 60202), (158, 60220),

Gene: Bromden_96 Start: 60413, Stop: 60820, Start Num: 53

Candidate Starts for Bromden_96:

(Start: 53 @60413 has 67 MA's), (64, 60434), (67, 60449), (104, 60563), (105, 60566), (139, 60716), (146, 60767), (153, 60794), (158, 60812),

Gene: Buttons_9 Start: 4220, Stop: 4798, Start Num: 57

Candidate Starts for Buttons_9:

(Start: 57 @4220 has 20 MA's), (95, 4346), (160, 4679),

Gene: C3PO_45 Start: 42754, Stop: 42164, Start Num: 32

Candidate Starts for C3PO_45:

(11, 42886), (12, 42883), (Start: 32 @42754 has 3 MA's), (46, 42706), (55, 42667), (67, 42643), (70, 42640), (112, 42496), (128, 42418), (135, 42385), (152, 42277), (172, 42175), (174, 42169),

Gene: Calm_92 Start: 57376, Stop: 57786, Start Num: 53

Candidate Starts for Calm_92:

(Start: 53 @57376 has 67 MA's), (65, 57406), (66, 57409), (81, 57454), (105, 57532), (116, 57574), (124, 57610), (132, 57652), (133, 57658), (141, 57706), (150, 57751), (158, 57778),

Gene: Cassita_88 Start: 48685, Stop: 48176, Start Num: 30

Candidate Starts for Cassita_88:

(Start: 30 @48685 has 2 MA's), (88, 48508), (98, 48478), (113, 48424), (125, 48376),

Gene: Charming_36 Start: 32566, Stop: 32093, Start Num: 49

Candidate Starts for Charming_36:

(20, 32704), (Start: 25 @32650 has 1 MA's), (27, 32641), (43, 32593), (Start: 49 @32566 has 18 MA's), (79, 32467), (92, 32425), (93, 32422), (101, 32386), (115, 32329), (122, 32296), (130, 32248),

Gene: Chaser_95 Start: 58821, Stop: 59228, Start Num: 53

Candidate Starts for Chaser_95:

(Start: 53 @58821 has 67 MA's), (64, 58842), (67, 58857), (105, 58974), (126, 59070), (139, 59124), (146, 59175), (153, 59202), (154, 59205), (158, 59220),

Gene: ChisanaKitsune_96 Start: 72440, Stop: 72853, Start Num: 62

Candidate Starts for ChisanaKitsune_96:

(40, 72365), (45, 72383), (Start: 62 @72440 has 1 MA's), (94, 72536), (101, 72563), (104, 72575), (105, 72578), (118, 72626),

Gene: CicholasNage_88 Start: 57029, Stop: 57439, Start Num: 53

Candidate Starts for CicholasNage_88:

(Start: 53 @57029 has 67 MA's), (65, 57059), (66, 57062), (81, 57107), (105, 57185), (116, 57227), (124, 57263), (132, 57305), (133, 57311), (141, 57359), (150, 57404), (158, 57431),

Gene: Claus_94 Start: 59528, Stop: 59941, Start Num: 53

Candidate Starts for Claus_94:

(Start: 53 @59528 has 67 MA's), (92, 59639), (102, 59678), (105, 59687), (124, 59765), (139, 59837), (153, 59915), (158, 59933),

Gene: Clautastrophe_90 Start: 59235, Stop: 59642, Start Num: 53

Candidate Starts for Clautastrophe_90:

(Start: 53 @59235 has 67 MA's), (64, 59256), (104, 59385), (105, 59388), (124, 59466), (130, 59502), (146, 59589), (153, 59616),

Gene: Courthouse_143 Start: 75295, Stop: 75897, Start Num: 34

Candidate Starts for Courthouse_143:

(Start: 34 @75295 has 14 MA's), (63, 75400), (69, 75421), (71, 75424), (77, 75448), (78, 75451), (79, 75457), (97, 75517), (116, 75586), (120, 75604), (128, 75655), (136, 75691), (148, 75787), (170, 75883),

Gene: Crossroads_95 Start: 59527, Stop: 59940, Start Num: 53

Candidate Starts for Crossroads_95:

(Start: 53 @59527 has 67 MA's), (92, 59638), (102, 59677), (105, 59686), (124, 59764), (139, 59836), (153, 59914), (158, 59932),

Gene: Cruella_45 Start: 42754, Stop: 42164, Start Num: 32

Candidate Starts for Cruella_45:

(11, 42886), (12, 42883), (Start: 32 @42754 has 3 MA's), (46, 42706), (55, 42667), (67, 42643), (70, 42640), (112, 42496), (128, 42418), (135, 42385), (152, 42277), (172, 42175), (174, 42169),

Gene: DD5_9 Start: 4751, Stop: 5332, Start Num: 57

Candidate Starts for DD5_9:

(Start: 57 @4751 has 20 MA's), (85, 4853), (94, 4874), (105, 4922), (160, 5201),

Gene: Daredevil_91 Start: 63069, Stop: 63638, Start Num: 36

Candidate Starts for Daredevil_91:

(4, 62760), (7, 62871), (Start: 36 @63069 has 6 MA's), (75, 63186), (87, 63237), (104, 63291), (115, 63336), (140, 63480), (152, 63546),

Gene: Darwin_11 Start: 6015, Stop: 6593, Start Num: 38

Candidate Starts for Darwin_11:

(Start: 38 @6015 has 1 MA's), (76, 6126), (78, 6132), (114, 6267), (119, 6282), (131, 6351), (135, 6372), (166, 6534), (171, 6579),

Gene: Darwin_76 Start: 54919, Stop: 54362, Start Num: 44

Candidate Starts for Darwin_76:

(Start: 44 @54919 has 1 MA's), (76, 54829), (91, 54778), (112, 54700), (169, 54418), (176, 54370),

Gene: Darwin_14 Start: 7286, Stop: 7858, Start Num: 47

Candidate Starts for Darwin_14:

(Start: 47 @7286 has 1 MA's), (100, 7448), (105, 7466), (106, 7469), (155, 7727), (164, 7763), (175, 7832),

Gene: DatBoi_98 Start: 66730, Stop: 67308, Start Num: 36

Candidate Starts for DatBoi_98:

(Start: 36 @66730 has 6 MA's), (Start: 48 @66778 has 1 MA's), (58, 66814), (73, 66838), (75, 66847), (123, 67036), (157, 67228),

Gene: DirkDirk_88 Start: 56705, Stop: 57115, Start Num: 53

Candidate Starts for DirkDirk_88:

(Start: 53 @56705 has 67 MA's), (65, 56735), (66, 56738), (81, 56783), (105, 56861), (116, 56903), (124, 56939), (132, 56981), (133, 56987), (141, 57035), (150, 57080), (158, 57107),

Gene: Douge_95 Start: 58940, Stop: 59347, Start Num: 53

Candidate Starts for Douge_95:

(Start: 53 @58940 has 67 MA's), (64, 58961), (105, 59093), (126, 59189), (139, 59243), (146, 59294), (153, 59321), (154, 59324), (158, 59339),

Gene: DrSeegs_94 Start: 59815, Stop: 60228, Start Num: 53

Candidate Starts for DrSeegs_94:

(Start: 53 @59815 has 67 MA's), (92, 59926), (104, 59971), (105, 59974), (126, 60070), (139, 60124), (153, 60202), (158, 60220),

Gene: Duke13_146 Start: 77046, Stop: 77648, Start Num: 34

Candidate Starts for Duke13_146:

(21, 76977), (Start: 34 @77046 has 14 MA's), (63, 77151), (69, 77172), (71, 77175), (77, 77199), (78, 77202), (79, 77208), (109, 77310), (116, 77337), (120, 77355), (136, 77442), (170, 77634),

Gene: DuncansLeg_92 Start: 59254, Stop: 59661, Start Num: 53

Candidate Starts for DuncansLeg_92:

(Start: 53 @59254 has 67 MA's), (64, 59275), (92, 59359), (104, 59404), (105, 59407), (124, 59485), (130, 59521), (146, 59608), (153, 59635),

Gene: DyoEdafos_98 Start: 59531, Stop: 59938, Start Num: 53

Candidate Starts for DyoEdafos_98:

(Start: 53 @59531 has 67 MA's), (64, 59552), (67, 59567), (105, 59684), (113, 59720), (126, 59780), (139, 59834), (146, 59885), (153, 59912), (158, 59930),

Gene: Edtherson_9 Start: 4530, Stop: 5108, Start Num: 57

Candidate Starts for Edtherson_9:

(Start: 57 @4530 has 20 MA's), (95, 4656), (160, 4989),

Gene: Ellson_91 Start: 59569, Stop: 59976, Start Num: 53

Candidate Starts for Ellson_91:

(Start: 53 @59569 has 67 MA's), (64, 59590), (92, 59674), (104, 59719), (105, 59722), (124, 59800), (130, 59836), (146, 59923), (153, 59950),

Gene: EnalisNailo_66 Start: 46449, Stop: 46868, Start Num: 52

Candidate Starts for EnalisNailo_66:

(6, 46161), (Start: 22 @46323 has 2 MA's), (Start: 38 @46386 has 1 MA's), (41, 46401), (43, 46410), (Start: 52 @46449 has 4 MA's), (56, 46461), (67, 46491), (99, 46590), (101, 46596), (131, 46734),

Gene: Enceladus_88 Start: 57406, Stop: 57816, Start Num: 53

Candidate Starts for Enceladus_88:

(Start: 53 @57406 has 67 MA's), (65, 57436), (66, 57439), (81, 57484), (105, 57562), (116, 57604), (124, 57640), (132, 57682), (133, 57688), (141, 57736), (150, 57781), (158, 57808),

Gene: EricMillard_142 Start: 78398, Stop: 79000, Start Num: 34

Candidate Starts for EricMillard_142:

(21, 78329), (Start: 34 @78398 has 14 MA's), (63, 78503), (69, 78524), (71, 78527), (77, 78551), (78, 78554), (79, 78560), (109, 78662), (116, 78689), (120, 78707), (136, 78794), (170, 78986),

Gene: Eureka_37 Start: 33608, Stop: 33108, Start Num: 31

Candidate Starts for Eureka_37:

(Start: 31 @33608 has 3 MA's), (Start: 48 @33551 has 1 MA's), (59, 33515),

Gene: Faith1_95 Start: 59452, Stop: 59865, Start Num: 53

Candidate Starts for Faith1_95:

(Start: 53 @59452 has 67 MA's), (92, 59563), (104, 59608), (105, 59611), (126, 59707), (139, 59761), (153, 59839), (158, 59857),

Gene: Finch_82 Start: 71334, Stop: 71777, Start Num: 50

Candidate Starts for Finch_82:

(29, 71253), (42, 71289), (Start: 50 @71334 has 1 MA's), (67, 71382), (104, 71505), (105, 71508), (118, 71559), (129, 71625), (137, 71655),

Gene: Finemlucis_96 Start: 60566, Stop: 60979, Start Num: 53

Candidate Starts for Finemlucis_96:

(Start: 53 @60566 has 67 MA's), (92, 60677), (102, 60716), (105, 60725), (124, 60803), (139, 60875), (153, 60953), (158, 60971),

Gene: Finnry_92 Start: 59588, Stop: 59995, Start Num: 53

Candidate Starts for Finnry_92:

(Start: 53 @59588 has 67 MA's), (64, 59609), (104, 59738), (105, 59741), (124, 59819), (130, 59855), (146, 59942), (153, 59969),

Gene: Fosterous_34 Start: 32991, Stop: 32518, Start Num: 49

Candidate Starts for Fosterous_34:

(20, 33129), (Start: 25 @33075 has 1 MA's), (27, 33066), (43, 33018), (Start: 49 @32991 has 18 MA's), (79, 32892), (92, 32850), (93, 32847), (101, 32811), (115, 32754), (122, 32721), (130, 32673),

Gene: Francesca_39 Start: 21303, Stop: 21839, Start Num: 36

Candidate Starts for Francesca_39:

(Start: 36 @21303 has 6 MA's), (103, 21498), (104, 21501), (128, 21618), (165, 21804), (168, 21822),

Gene: GMA3_25 Start: 35593, Stop: 36075, Start Num: 46

Candidate Starts for GMA3_25:

(46, 35593), (68, 35656), (89, 35722), (96, 35743), (103, 35764), (106, 35773), (114, 35809), (163, 36034),

Gene: Gabriela_95 Start: 58798, Stop: 59211, Start Num: 53

Candidate Starts for Gabriela_95:

(Start: 53 @58798 has 67 MA's), (92, 58909), (104, 58954), (105, 58957), (126, 59053), (139, 59107), (153, 59185), (158, 59203),

Gene: Galactic_32 Start: 27751, Stop: 28350, Start Num: 15

Candidate Starts for Galactic_32:

(Start: 15 @27751 has 3 MA's), (Start: 31 @27853 has 3 MA's), (104, 28075), (111, 28111), (142, 28276), (151, 28321),

Gene: Galadriel_36 Start: 33480, Stop: 33007, Start Num: 49

Candidate Starts for Galadriel_36:

(20, 33618), (Start: 25 @33564 has 1 MA's), (27, 33555), (43, 33507), (Start: 49 @33480 has 18 MA's), (79, 33381), (92, 33339), (93, 33336), (101, 33300), (115, 33243), (122, 33210), (130, 33162),

Gene: Gardann_95 Start: 59299, Stop: 59712, Start Num: 53

Candidate Starts for Gardann_95:

(Start: 53 @59299 has 67 MA's), (92, 59410), (102, 59449), (105, 59458), (124, 59536), (139, 59608), (153, 59686), (158, 59704),

Gene: Geodirt_33 Start: 32468, Stop: 31986, Start Num: 49

Candidate Starts for Geodirt_33:

(20, 32606), (Start: 25 @32552 has 1 MA's), (26, 32549), (43, 32495), (Start: 49 @32468 has 18 MA's), (101, 32285), (104, 32273), (138, 32111), (141, 32066),

Gene: Goku_37 Start: 33337, Stop: 32837, Start Num: 31

Candidate Starts for Goku_37:

(Start: 31 @33337 has 3 MA's), (Start: 48 @33280 has 1 MA's), (59, 33244),

Gene: Gonephishing_141 Start: 75522, Stop: 76124, Start Num: 34

Candidate Starts for Gonephishing_141:

(21, 75453), (Start: 34 @75522 has 14 MA's), (63, 75627), (69, 75648), (71, 75651), (77, 75675), (78, 75678), (79, 75684), (109, 75786), (116, 75813), (120, 75831), (136, 75918), (170, 76110),

Gene: Graduation_10 Start: 4816, Stop: 5397, Start Num: 57

Candidate Starts for Graduation_10:

(Start: 57 @4816 has 20 MA's), (85, 4918), (94, 4939), (105, 4987), (160, 5266),

Gene: GuuelaD_92 Start: 59411, Stop: 59824, Start Num: 53

Candidate Starts for GuuelaD_92:

(Start: 53 @59411 has 67 MA's), (92, 59522), (102, 59561), (105, 59570), (124, 59648), (139, 59720), (153, 59798), (158, 59816),

Gene: Gwendoluna_9 Start: 4700, Stop: 5281, Start Num: 57

Candidate Starts for Gwendoluna_9:

(Start: 57 @4700 has 20 MA's), (85, 4802), (94, 4823), (105, 4871), (160, 5150),

Gene: Gwendoluna_12 Start: 7699, Stop: 8121, Start Num: 48

Candidate Starts for Gwendoluna_12:

(Start: 39 @7666 has 2 MA's), (Start: 48 @7699 has 1 MA's), (82, 7786), (102, 7846), (111, 7888), (128, 7966), (130, 7975), (143, 8056), (150, 8095),

Gene: Hafay_96 Start: 59523, Stop: 59936, Start Num: 53

Candidate Starts for Hafay_96:

(Start: 53 @59523 has 67 MA's), (92, 59634), (102, 59673), (105, 59682), (124, 59760), (139, 59832), (153, 59910), (158, 59928),

Gene: Halena_88 Start: 56292, Stop: 56702, Start Num: 53

Candidate Starts for Halena_88:

(Start: 53 @56292 has 67 MA's), (65, 56322), (66, 56325), (81, 56370), (105, 56448), (116, 56490), (124, 56526), (132, 56568), (133, 56574), (141, 56622), (150, 56667), (158, 56694),

Gene: Hannaconda_141 Start: 76044, Stop: 76646, Start Num: 34

Candidate Starts for Hannaconda_141:

(Start: 34 @76044 has 14 MA's), (63, 76149), (69, 76170), (71, 76173), (77, 76197), (78, 76200), (79, 76206), (97, 76266), (116, 76335), (120, 76353), (128, 76404), (136, 76440), (148, 76536), (170, 76632),

Gene: Hermia_10 Start: 4783, Stop: 5361, Start Num: 57

Candidate Starts for Hermia_10:

(Start: 57 @4783 has 20 MA's), (95, 4909), (160, 5242),

Gene: Hlubikazi_31 Start: 27761, Stop: 28381, Start Num: 19

Candidate Starts for Hlubikazi_31:

(9, 27677), (Start: 15 @27734 has 3 MA's), (Start: 19 @27761 has 3 MA's), (Start: 31 @27836 has 3 MA's), (104, 28058), (111, 28094), (142, 28259), (151, 28304),

Gene: HokkenD_142 Start: 79202, Stop: 79804, Start Num: 34

Candidate Starts for HokkenD_142:

(21, 79133), (Start: 34 @79202 has 14 MA's), (63, 79307), (69, 79328), (71, 79331), (77, 79355), (78, 79358), (79, 79364), (109, 79466), (116, 79493), (120, 79511), (136, 79598), (170, 79790),

Gene: Hughesyang_148 Start: 79867, Stop: 80466, Start Num: 35

Candidate Starts for Hughesyang_148:

(Start: 35 @79867 has 8 MA's), (63, 79969), (69, 79990), (71, 79993), (87, 80056), (97, 80086), (101, 80095), (109, 80128), (120, 80173), (136, 80260), (143, 80320), (148, 80356), (170, 80452),

Gene: Itos_95 Start: 58358, Stop: 58771, Start Num: 53

Candidate Starts for Itos_95:

(Start: 53 @58358 has 67 MA's), (92, 58469), (104, 58514), (105, 58517), (126, 58613), (139, 58667), (153, 58745), (158, 58763),

Gene: Jalammah_18 Start: 10634, Stop: 11050, Start Num: 61

Candidate Starts for Jalammah_18:

(27, 10535), (Start: 33 @10544 has 3 MA's), (Start: 48 @10595 has 1 MA's), (Start: 61 @10634 has 1 MA's), (103, 10763), (104, 10766), (105, 10769), (111, 10802), (115, 10808), (123, 10844), (131,

10892), (135, 10913),

Gene: Jobypre_93 Start: 59235, Stop: 59642, Start Num: 53

Candidate Starts for Jobypre_93:

(Start: 53 @59235 has 67 MA's), (64, 59256), (104, 59385), (105, 59388), (124, 59466), (130, 59502), (146, 59589), (153, 59616),

Gene: JoeDirt_92 Start: 57967, Stop: 58377, Start Num: 53

Candidate Starts for JoeDirt_92:

(Start: 53 @57967 has 67 MA's), (65, 57997), (66, 58000), (81, 58045), (105, 58123), (116, 58165), (124, 58201), (132, 58243), (133, 58249), (141, 58297), (150, 58342), (158, 58369),

Gene: Jubie_91 Start: 59370, Stop: 59777, Start Num: 53

Candidate Starts for Jubie_91:

(Start: 53 @59370 has 67 MA's), (64, 59391), (104, 59520), (105, 59523), (124, 59601), (130, 59637), (146, 59724), (153, 59751),

Gene: KBG_9 Start: 4959, Stop: 5540, Start Num: 57

Candidate Starts for KBG_9:

(Start: 57 @4959 has 20 MA's), (85, 5061), (94, 5082), (105, 5130), (160, 5409),

Gene: Kahlid_94 Start: 59217, Stop: 59630, Start Num: 53

Candidate Starts for Kahlid_94:

(Start: 53 @59217 has 67 MA's), (92, 59328), (102, 59367), (105, 59376), (124, 59454), (139, 59526), (153, 59604), (158, 59622),

Gene: Kalah2_140 Start: 78988, Stop: 79587, Start Num: 35

Candidate Starts for Kalah2_140:

(Start: 35 @78988 has 8 MA's), (63, 79090), (69, 79111), (71, 79114), (87, 79177), (97, 79207), (101, 79216), (109, 79249), (120, 79294), (136, 79381), (143, 79441), (148, 79477), (170, 79573),

Gene: Kenmech_10 Start: 4617, Stop: 5195, Start Num: 57

Candidate Starts for Kenmech_10:

(Start: 57 @4617 has 20 MA's), (95, 4743), (160, 5076),

Gene: Kingsolomon_90 Start: 59344, Stop: 59751, Start Num: 53

Candidate Starts for Kingsolomon_90:

(Start: 53 @59344 has 67 MA's), (64, 59365), (104, 59494), (105, 59497), (124, 59575), (130, 59611), (146, 59698), (153, 59725),

Gene: Klein_147 Start: 77536, Stop: 78138, Start Num: 34

Candidate Starts for Klein_147:

(21, 77467), (Start: 34 @77536 has 14 MA's), (63, 77641), (69, 77662), (71, 77665), (77, 77689), (78, 77692), (79, 77698), (109, 77800), (116, 77827), (120, 77845), (136, 77932), (170, 78124),

Gene: Krypton555_94 Start: 59747, Stop: 60154, Start Num: 53

Candidate Starts for Krypton555_94:

(Start: 53 @59747 has 67 MA's), (64, 59768), (92, 59852), (104, 59897), (105, 59900), (124, 59978), (130, 60014), (146, 60101), (153, 60128),

Gene: LeBron_90 Start: 56599, Stop: 57009, Start Num: 53

Candidate Starts for LeBron_90:

(Start: 53 @56599 has 67 MA's), (65, 56629), (66, 56632), (81, 56677), (105, 56755), (116, 56797), (124, 56833), (132, 56875), (133, 56881), (141, 56929), (150, 56974), (158, 57001),

Gene: LeeroyJenkins_94 Start: 49860, Stop: 49351, Start Num: 30

Candidate Starts for LeeroyJenkins_94:

(Start: 30 @49860 has 2 MA's), (85, 49689), (88, 49683), (98, 49653), (113, 49599), (125, 49551),

Gene: Lennon_36 Start: 34213, Stop: 33740, Start Num: 49

Candidate Starts for Lennon_36:

(20, 34351), (Start: 25 @34297 has 1 MA's), (43, 34240), (Start: 49 @34213 has 18 MA's), (79, 34114), (92, 34072), (93, 34069), (101, 34033), (115, 33976), (121, 33952), (130, 33895),

Gene: Lewan_96 Start: 59451, Stop: 59864, Start Num: 53

Candidate Starts for Lewan_96:

(Start: 53 @59451 has 67 MA's), (92, 59562), (102, 59601), (105, 59610), (124, 59688), (139, 59760), (153, 59838), (158, 59856),

Gene: LilBib_8 Start: 4381, Stop: 4959, Start Num: 57

Candidate Starts for LilBib_8:

(Start: 57 @4381 has 20 MA's), (95, 4507), (160, 4840),

Gene: LilDestine_93 Start: 59128, Stop: 59541, Start Num: 53

Candidate Starts for LilDestine_93:

(Start: 53 @59128 has 67 MA's), (92, 59239), (102, 59278), (105, 59287), (124, 59365), (139, 59437), (153, 59515), (158, 59533),

Gene: Lilas_67 Start: 47987, Stop: 48406, Start Num: 52

Candidate Starts for Lilas_67:

(6, 47699), (Start: 22 @47861 has 2 MA's), (Start: 38 @47924 has 1 MA's), (41, 47939), (43, 47948), (Start: 52 @47987 has 4 MA's), (56, 47999), (67, 48029), (99, 48128), (101, 48134), (131, 48272),

Gene: LittleE_150 Start: 78544, Stop: 79146, Start Num: 34

Candidate Starts for LittleE_150:

(Start: 34 @78544 has 14 MA's), (75, 78682), (77, 78694), (87, 78736), (99, 78769), (109, 78808), (113, 78829), (128, 78904), (134, 78934), (170, 79132),

Gene: Loadrie_94 Start: 59619, Stop: 60032, Start Num: 53

Candidate Starts for Loadrie_94:

(Start: 53 @59619 has 67 MA's), (92, 59730), (102, 59769), (105, 59778), (124, 59856), (139, 59928), (153, 60006), (158, 60024),

Gene: Lolly9_91 Start: 59420, Stop: 59827, Start Num: 53

Candidate Starts for Lolly9_91:

(Start: 53 @59420 has 67 MA's), (64, 59441), (92, 59525), (104, 59570), (124, 59651), (130, 59687), (146, 59774), (153, 59801),

Gene: LordFarquaad_67 Start: 43212, Stop: 43631, Start Num: 52

Candidate Starts for LordFarquaad_67:

(Start: 22 @43086 has 2 MA's), (28, 43128), (Start: 38 @43149 has 1 MA's), (43, 43173), (Start: 52 @43212 has 4 MA's), (56, 43224), (67, 43254), (101, 43359), (131, 43497),

Gene: Love_39 Start: 33996, Stop: 33523, Start Num: 49

Candidate Starts for Love_39:

(20, 34134), (Start: 25 @34080 has 1 MA's), (27, 34071), (43, 34023), (Start: 49 @33996 has 18 MA's), (79, 33897), (92, 33855), (93, 33852), (101, 33816), (115, 33759), (122, 33726), (130, 33678),

Gene: Lumos_92 Start: 59232, Stop: 59639, Start Num: 53

Candidate Starts for Lumos_92:

(Start: 53 @59232 has 67 MA's), (64, 59253), (104, 59382), (105, 59385), (124, 59463), (130, 59499), (146, 59586), (153, 59613),

Gene: Lysidious_17 Start: 10274, Stop: 10777, Start Num: 33

Candidate Starts for Lysidious_17:

(Start: 33 @10274 has 3 MA's), (Start: 61 @10364 has 1 MA's), (74, 10388), (103, 10493), (105, 10499), (111, 10532), (115, 10538), (135, 10643),

Gene: MAckerman_87 Start: 56285, Stop: 56695, Start Num: 53

Candidate Starts for MAckerman_87:

(Start: 53 @56285 has 67 MA's), (65, 56315), (66, 56318), (81, 56363), (105, 56441), (116, 56483), (124, 56519), (132, 56561), (133, 56567), (141, 56615), (150, 56660), (158, 56687),

Gene: Malachai_17 Start: 10279, Stop: 10785, Start Num: 33

Candidate Starts for Malachai_17:

(Start: 33 @10279 has 3 MA's), (Start: 61 @10369 has 1 MA's), (105, 10504), (111, 10537), (125, 10588), (139, 10681), (145, 10723),

Gene: Mandlovu_31 Start: 27703, Stop: 28323, Start Num: 19

Candidate Starts for Mandlovu_31:

(9, 27619), (Start: 15 @27676 has 3 MA's), (Start: 19 @27703 has 3 MA's), (Start: 31 @27778 has 3 MA's), (104, 28000), (111, 28036), (142, 28201), (151, 28246),

Gene: McKinley_38 Start: 34022, Stop: 33549, Start Num: 49

Candidate Starts for McKinley_38:

(20, 34160), (Start: 25 @34106 has 1 MA's), (27, 34097), (43, 34049), (Start: 49 @34022 has 18 MA's), (79, 33923), (92, 33881), (93, 33878), (101, 33842), (115, 33785), (130, 33704),

Gene: Miley16_95 Start: 59815, Stop: 60228, Start Num: 53

Candidate Starts for Miley16_95:

(Start: 53 @59815 has 67 MA's), (92, 59926), (104, 59971), (105, 59974), (126, 60070), (139, 60124), (153, 60202), (158, 60220),

Gene: Minerva_148 Start: 78849, Stop: 79448, Start Num: 35

Candidate Starts for Minerva_148:

(Start: 35 @78849 has 8 MA's), (63, 78951), (69, 78972), (71, 78975), (87, 79038), (97, 79068), (101, 79077), (109, 79110), (120, 79155), (136, 79242), (143, 79302), (148, 79338), (170, 79434),

Gene: MiniLon_96 Start: 59421, Stop: 59828, Start Num: 53

Candidate Starts for MiniLon_96:

(Start: 53 @59421 has 67 MA's), (64, 59442), (92, 59526), (104, 59571), (124, 59652), (130, 59688), (146, 59775), (153, 59802),

Gene: MiniMac_96 Start: 59416, Stop: 59823, Start Num: 53

Candidate Starts for MiniMac_96:

(Start: 53 @59416 has 67 MA's), (64, 59437), (92, 59521), (104, 59566), (124, 59647), (130, 59683), (146, 59770), (153, 59797),

Gene: MinionDave_33 Start: 28083, Stop: 28682, Start Num: 15
Candidate Starts for MinionDave_33:
(Start: 15 @28083 has 3 MA's), (Start: 31 @28185 has 3 MA's), (104, 28407), (111, 28443), (142, 28608), (151, 28653),

Gene: MkaliMitinis3_97 Start: 59582, Stop: 59995, Start Num: 53
Candidate Starts for MkaliMitinis3_97:
(Start: 53 @59582 has 67 MA's), (92, 59693), (102, 59732), (105, 59741), (124, 59819), (139, 59891), (153, 59969), (158, 59987),

Gene: Mollymur_102 Start: 68397, Stop: 68978, Start Num: 36
Candidate Starts for Mollymur_102:
(4, 68076), (8, 68211), (Start: 36 @68397 has 6 MA's), (75, 68514), (80, 68541), (87, 68565), (110, 68646), (131, 68757), (152, 68886), (160, 68916), (162, 68922),

Gene: Monet_9 Start: 4498, Stop: 5076, Start Num: 57
Candidate Starts for Monet_9:
(Start: 57 @4498 has 20 MA's), (95, 4624), (160, 4957),

Gene: Moostard_89 Start: 59339, Stop: 59746, Start Num: 53
Candidate Starts for Moostard_89:
(Start: 53 @59339 has 67 MA's), (64, 59360), (104, 59489), (105, 59492), (124, 59570), (130, 59606), (146, 59693), (153, 59720),

Gene: Mozy_32 Start: 27800, Stop: 28405, Start Num: 54
Candidate Starts for Mozy_32:
(Start: 31 @27716 has 3 MA's), (Start: 54 @27800 has 1 MA's), (80, 27872), (87, 27896), (90, 27902), (102, 27932), (108, 27953), (111, 27974), (130, 28061),

Gene: MsGreen_92 Start: 59234, Stop: 59641, Start Num: 53
Candidate Starts for MsGreen_92:
(Start: 53 @59234 has 67 MA's), (64, 59255), (104, 59384), (105, 59387), (124, 59465), (130, 59501), (146, 59588), (153, 59615),

Gene: Nerujay_9 Start: 4453, Stop: 5034, Start Num: 57
Candidate Starts for Nerujay_9:
(Start: 57 @4453 has 20 MA's), (85, 4555), (94, 4576), (105, 4624), (160, 4903),

Gene: Netyap_94 Start: 59453, Stop: 59866, Start Num: 53
Candidate Starts for Netyap_94:
(Start: 53 @59453 has 67 MA's), (92, 59564), (104, 59609), (105, 59612), (126, 59708), (139, 59762), (153, 59840), (158, 59858),

Gene: Nicholas_90 Start: 59344, Stop: 59751, Start Num: 53
Candidate Starts for Nicholas_90:
(Start: 53 @59344 has 67 MA's), (64, 59365), (104, 59494), (105, 59497), (124, 59575), (130, 59611), (146, 59698), (153, 59725),

Gene: Nicholasp3_95 Start: 59299, Stop: 59712, Start Num: 53
Candidate Starts for Nicholasp3_95:
(Start: 53 @59299 has 67 MA's), (92, 59410), (102, 59449), (105, 59458), (124, 59536), (139, 59608), (153, 59686), (158, 59704),

Gene: Nordenberg_30 Start: 32192, Stop: 31719, Start Num: 49

Candidate Starts for Nordenberg_30:

(20, 32330), (Start: 25 @32276 has 1 MA's), (27, 32267), (43, 32219), (Start: 49 @32192 has 18 MA's), (79, 32093), (92, 32051), (93, 32048), (101, 32012), (115, 31955), (122, 31922), (130, 31874),

Gene: Norz_9 Start: 4534, Stop: 5112, Start Num: 57

Candidate Starts for Norz_9:

(Start: 57 @4534 has 20 MA's), (95, 4660), (160, 4993),

Gene: OhShagHennessy_87 Start: 56542, Stop: 56952, Start Num: 53

Candidate Starts for OhShagHennessy_87:

(Start: 53 @56542 has 67 MA's), (65, 56572), (66, 56575), (81, 56620), (105, 56698), (116, 56740), (124, 56776), (132, 56818), (133, 56824), (141, 56872), (150, 56917), (158, 56944),

Gene: Omega_51 Start: 42659, Stop: 43288, Start Num: 17

Candidate Starts for Omega_51:

(Start: 17 @42659 has 1 MA's), (Start: 31 @42746 has 3 MA's), (Start: 48 @42809 has 1 MA's), (73, 42875), (78, 42899), (86, 42932), (97, 42965), (104, 42986), (105, 42989), (111, 43022), (128, 43100), (147, 43211), (159, 43259),

Gene: Omega_154 Start: 79628, Stop: 80230, Start Num: 34

Candidate Starts for Omega_154:

(Start: 34 @79628 has 14 MA's), (75, 79766), (77, 79778), (87, 79820), (99, 79853), (109, 79892), (113, 79913), (128, 79988), (134, 80018), (170, 80216),

Gene: Optimus_141 Start: 76720, Stop: 77322, Start Num: 34

Candidate Starts for Optimus_141:

(21, 76651), (Start: 34 @76720 has 14 MA's), (63, 76825), (69, 76846), (71, 76849), (77, 76873), (78, 76876), (79, 76882), (109, 76984), (116, 77011), (120, 77029), (136, 77116), (170, 77308),

Gene: Papez_9 Start: 5271, Stop: 5849, Start Num: 57

Candidate Starts for Papez_9:

(Start: 57 @5271 has 20 MA's), (95, 5397), (160, 5730),

Gene: Paries_38 Start: 33658, Stop: 33185, Start Num: 49

Candidate Starts for Paries_38:

(16, 33820), (20, 33796), (Start: 25 @33742 has 1 MA's), (27, 33733), (43, 33685), (Start: 49 @33658 has 18 MA's), (79, 33559), (92, 33517), (93, 33514), (101, 33478), (115, 33421), (122, 33388), (130, 33340),

Gene: Phoebus_149 Start: 81221, Stop: 81820, Start Num: 35

Candidate Starts for Phoebus_149:

(Start: 35 @81221 has 8 MA's), (63, 81323), (69, 81344), (71, 81347), (87, 81410), (97, 81440), (101, 81449), (109, 81482), (120, 81527), (136, 81614), (143, 81674), (148, 81710), (170, 81806),

Gene: QTRlifeCrisis_8 Start: 4494, Stop: 5075, Start Num: 57

Candidate Starts for QTRlifeCrisis_8:

(Start: 57 @4494 has 20 MA's), (85, 4596), (94, 4617), (105, 4665), (160, 4944),

Gene: Ramsey_33 Start: 27746, Stop: 28345, Start Num: 15

Candidate Starts for Ramsey_33:

(Start: 15 @27746 has 3 MA's), (Start: 31 @27848 has 3 MA's), (104, 28070), (111, 28106), (142, 28271), (151, 28316),

Gene: Rofo_36 Start: 33056, Stop: 32583, Start Num: 49

Candidate Starts for Rofo_36:

(20, 33194), (Start: 25 @33140 has 1 MA's), (27, 33131), (43, 33083), (Start: 49 @33056 has 18 MA's), (79, 32957), (92, 32915), (93, 32912), (101, 32876), (115, 32819), (122, 32786), (130, 32738),

Gene: Rose5_92 Start: 57809, Stop: 58219, Start Num: 53

Candidate Starts for Rose5_92:

(Start: 53 @57809 has 67 MA's), (65, 57839), (66, 57842), (81, 57887), (105, 57965), (116, 58007), (124, 58043), (132, 58085), (133, 58091), (141, 58139), (150, 58184), (158, 58211),

Gene: Rumpelstiltskin_91 Start: 59092, Stop: 59505, Start Num: 53

Candidate Starts for Rumpelstiltskin_91:

(Start: 53 @59092 has 67 MA's), (92, 59203), (102, 59242), (105, 59251), (124, 59329), (139, 59401), (153, 59479), (158, 59497),

Gene: Samty_91 Start: 59332, Stop: 59739, Start Num: 53

Candidate Starts for Samty_91:

(Start: 53 @59332 has 67 MA's), (64, 59353), (104, 59482), (105, 59485), (124, 59563), (130, 59599), (146, 59686), (153, 59713),

Gene: ScoobyDoobyDoo_251 Start: 151338, Stop: 151754, Start Num: 48

Candidate Starts for ScoobyDoobyDoo_251:

(24, 151257), (Start: 48 @151338 has 1 MA's), (51, 151356), (78, 151383), (84, 151401), (90, 151422), (101, 151452), (111, 151500), (118, 151515), (129, 151581), (141, 151668),

Gene: Sedona_36 Start: 34162, Stop: 33689, Start Num: 49

Candidate Starts for Sedona_36:

(20, 34300), (Start: 25 @34246 has 1 MA's), (27, 34237), (43, 34189), (Start: 49 @34162 has 18 MA's), (79, 34063), (92, 34021), (93, 34018), (101, 33982), (115, 33925), (122, 33892), (130, 33844),

Gene: Silverleaf_90 Start: 57305, Stop: 57715, Start Num: 53

Candidate Starts for Silverleaf_90:

(Start: 53 @57305 has 67 MA's), (65, 57335), (66, 57338), (81, 57383), (105, 57461), (116, 57503), (124, 57539), (132, 57581), (133, 57587), (141, 57635), (150, 57680), (158, 57707),

Gene: Sitar_36 Start: 34297, Stop: 33740, Start Num: 25

Candidate Starts for Sitar_36:

(20, 34351), (Start: 25 @34297 has 1 MA's), (43, 34240), (Start: 49 @34213 has 18 MA's), (79, 34114), (92, 34072), (93, 34069), (101, 34033), (115, 33976), (121, 33952), (130, 33895),

Gene: Snenia_91 Start: 59236, Stop: 59643, Start Num: 53

Candidate Starts for Snenia_91:

(Start: 53 @59236 has 67 MA's), (64, 59257), (104, 59386), (105, 59389), (124, 59467), (130, 59503), (146, 59590), (153, 59617),

Gene: SoilAssassin_64 Start: 43104, Stop: 43649, Start Num: 22

Candidate Starts for SoilAssassin_64:

(Start: 22 @43104 has 2 MA's), (28, 43146), (Start: 38 @43167 has 1 MA's), (43, 43191), (Start: 52 @43230 has 4 MA's), (56, 43242), (67, 43272), (101, 43377), (131, 43515),

Gene: Solon_8 Start: 4653, Stop: 5234, Start Num: 57

Candidate Starts for Solon_8:

(Start: 57 @4653 has 20 MA's), (85, 4755), (94, 4776), (105, 4824), (160, 5103),

Gene: SpeedDemon_1040 Start: 70108, Stop: 70686, Start Num: 36

Candidate Starts for SpeedDemon_1040:

(4, 69790), (Start: 13 @69976 has 1 MA's), (Start: 36 @70108 has 6 MA's), (Start: 48 @70156 has 1 MA's), (51, 70174), (58, 70192), (75, 70225), (104, 70327), (117, 70378), (134, 70480), (157, 70606),

Gene: SpikeBT_9 Start: 4433, Stop: 5011, Start Num: 57

Candidate Starts for SpikeBT_9:

(Start: 57 @4433 has 20 MA's), (95, 4559), (160, 4892),

Gene: Squee_8 Start: 4160, Stop: 4741, Start Num: 57

Candidate Starts for Squee_8:

(Start: 57 @4160 has 20 MA's), (85, 4262), (94, 4283), (105, 4331), (160, 4610),

Gene: Stickynote_47 Start: 43021, Stop: 42431, Start Num: 32

Candidate Starts for Stickynote_47:

(11, 43153), (12, 43150), (Start: 32 @43021 has 3 MA's), (46, 42973), (55, 42934), (67, 42910), (70, 42907), (112, 42763), (128, 42685), (135, 42652), (152, 42544), (173, 42439),

Gene: Strokeseat_31 Start: 27760, Stop: 28380, Start Num: 19

Candidate Starts for Strokeseat_31:

(9, 27676), (Start: 15 @27733 has 3 MA's), (Start: 19 @27760 has 3 MA's), (Start: 31 @27835 has 3 MA's), (104, 28057), (111, 28093), (142, 28258), (151, 28303),

Gene: Superphikiman_145 Start: 75577, Stop: 76179, Start Num: 34

Candidate Starts for Superphikiman_145:

(Start: 34 @75577 has 14 MA's), (63, 75682), (69, 75703), (71, 75706), (77, 75730), (78, 75733), (79, 75739), (97, 75799), (116, 75868), (120, 75886), (128, 75937), (136, 75973), (148, 76069), (170, 76165),

Gene: Tangent_36 Start: 32578, Stop: 32105, Start Num: 49

Candidate Starts for Tangent_36:

(20, 32716), (Start: 25 @32662 has 1 MA's), (27, 32653), (43, 32605), (Start: 49 @32578 has 18 MA's), (79, 32479), (92, 32437), (93, 32434), (101, 32398), (115, 32341), (122, 32308), (130, 32260),

Gene: Target_12 Start: 7244, Stop: 7699, Start Num: 39

Candidate Starts for Target_12:

(Start: 39 @7244 has 2 MA's), (Start: 48 @7277 has 1 MA's), (82, 7364), (102, 7424), (111, 7466), (128, 7544), (130, 7553), (143, 7634), (150, 7673),

Gene: TheloniousMonk_12 Start: 7471, Stop: 7926, Start Num: 39

Candidate Starts for TheloniousMonk_12:

(Start: 39 @7471 has 2 MA's), (Start: 48 @7504 has 1 MA's), (82, 7591), (102, 7651), (111, 7693), (128, 7771), (130, 7780), (143, 7861), (150, 7900),

Gene: TheloniousMonk_9 Start: 4484, Stop: 5062, Start Num: 57

Candidate Starts for TheloniousMonk_9:

(Start: 57 @4484 has 20 MA's), (95, 4610), (160, 4943),

Gene: Thibault_132 Start: 76186, Stop: 76788, Start Num: 34

Candidate Starts for Thibault_132:

(Start: 34 @76186 has 14 MA's), (75, 76324), (77, 76336), (87, 76378), (102, 76423), (104, 76429), (113, 76471), (128, 76546), (134, 76576), (170, 76774),

Gene: ThreeRngTarjay_144 Start: 79812, Stop: 80411, Start Num: 35

Candidate Starts for ThreeRngTarjay_144:

(Start: 35 @79812 has 8 MA's), (63, 79914), (69, 79935), (71, 79938), (87, 80001), (97, 80031), (101, 80040), (109, 80073), (120, 80118), (136, 80205), (143, 80265), (148, 80301), (170, 80397),

Gene: Tourach_95 Start: 60189, Stop: 60602, Start Num: 53

Candidate Starts for Tourach_95:

(Start: 53 @60189 has 67 MA's), (81, 60270), (92, 60300), (104, 60345), (105, 60348), (126, 60444), (139, 60498), (153, 60576), (158, 60594),

Gene: Treddle_9 Start: 4499, Stop: 5077, Start Num: 57

Candidate Starts for Treddle_9:

(Start: 57 @4499 has 20 MA's), (95, 4625), (160, 4958),

Gene: Tyson_92 Start: 57702, Stop: 58112, Start Num: 53

Candidate Starts for Tyson_92:

(Start: 53 @57702 has 67 MA's), (65, 57732), (66, 57735), (81, 57780), (105, 57858), (116, 57900), (124, 57936), (132, 57978), (133, 57984), (141, 58032), (150, 58077), (158, 58104),

Gene: UPIE_90 Start: 57298, Stop: 57708, Start Num: 53

Candidate Starts for UPIE_90:

(Start: 53 @57298 has 67 MA's), (65, 57328), (66, 57331), (81, 57376), (105, 57454), (116, 57496), (124, 57532), (132, 57574), (133, 57580), (141, 57628), (150, 57673), (158, 57700),

Gene: Vetrix_93 Start: 59073, Stop: 59486, Start Num: 53

Candidate Starts for Vetrix_93:

(Start: 53 @59073 has 67 MA's), (92, 59184), (102, 59223), (105, 59232), (124, 59310), (139, 59382), (153, 59460), (158, 59478),

Gene: Vivi2_38 Start: 33736, Stop: 33263, Start Num: 49

Candidate Starts for Vivi2_38:

(20, 33874), (Start: 25 @33820 has 1 MA's), (27, 33811), (43, 33763), (Start: 49 @33736 has 18 MA's), (79, 33637), (92, 33595), (93, 33592), (101, 33556), (115, 33499), (122, 33466), (130, 33418),

Gene: Wamburgrxpress_90 Start: 57426, Stop: 57836, Start Num: 53

Candidate Starts for Wamburgrxpress_90:

(Start: 53 @57426 has 67 MA's), (65, 57456), (66, 57459), (81, 57504), (105, 57582), (116, 57624), (124, 57660), (132, 57702), (133, 57708), (141, 57756), (150, 57801), (158, 57828),

Gene: Wanda_148 Start: 77329, Stop: 77928, Start Num: 35

Candidate Starts for Wanda_148:

(Start: 35 @77329 has 8 MA's), (63, 77431), (69, 77452), (71, 77455), (87, 77518), (97, 77548), (101, 77557), (109, 77590), (120, 77635), (136, 77722), (143, 77782), (148, 77818), (170, 77914),

Gene: Whirlwind_93 Start: 59575, Stop: 59982, Start Num: 53

Candidate Starts for Whirlwind_93:

(Start: 53 @59575 has 67 MA's), (64, 59596), (104, 59725), (105, 59728), (124, 59806), (130, 59842), (146, 59929), (153, 59956),

Gene: Wigglewiggles_95 Start: 59375, Stop: 59788, Start Num: 53

Candidate Starts for Wigglewiggle_95:

(Start: 53 @59375 has 67 MA's), (92, 59486), (104, 59531), (105, 59534), (126, 59630), (139, 59684), (153, 59762), (158, 59780),

Gene: Wilder_96 Start: 59217, Stop: 59630, Start Num: 53

Candidate Starts for Wilder_96:

(Start: 53 @59217 has 67 MA's), (92, 59328), (102, 59367), (105, 59376), (124, 59454), (139, 59526), (153, 59604), (158, 59622),

Gene: WilliamBoone_144 Start: 75606, Stop: 76268, Start Num: 18

Candidate Starts for WilliamBoone_144:

(14, 75582), (Start: 18 @75606 has 1 MA's), (60, 75792), (83, 75861), (87, 75876), (101, 75918), (156, 76194), (170, 76260),

Gene: Winky_95 Start: 59815, Stop: 60228, Start Num: 53

Candidate Starts for Winky_95:

(Start: 53 @59815 has 67 MA's), (92, 59926), (104, 59971), (105, 59974), (126, 60070), (139, 60124), (153, 60202), (158, 60220),

Gene: Wyatt2_92 Start: 57733, Stop: 58143, Start Num: 53

Candidate Starts for Wyatt2_92:

(Start: 53 @57733 has 67 MA's), (65, 57763), (66, 57766), (81, 57811), (105, 57889), (116, 57931), (124, 57967), (132, 58009), (133, 58015), (141, 58063), (150, 58108), (158, 58135),

Gene: Zakai_96 Start: 59860, Stop: 60273, Start Num: 53

Candidate Starts for Zakai_96:

(Start: 53 @59860 has 67 MA's), (92, 59971), (102, 60010), (105, 60019), (124, 60097), (139, 60169), (153, 60247), (158, 60265),

Gene: Zaria_91 Start: 56841, Stop: 57251, Start Num: 53

Candidate Starts for Zaria_91:

(Start: 53 @56841 has 67 MA's), (65, 56871), (66, 56874), (81, 56919), (105, 56997), (116, 57039), (124, 57075), (132, 57117), (133, 57123), (141, 57171), (150, 57216), (158, 57243),

Gene: Zelink_143 Start: 80141, Stop: 80740, Start Num: 35

Candidate Starts for Zelink_143:

(Start: 35 @80141 has 8 MA's), (63, 80243), (69, 80264), (71, 80267), (87, 80330), (97, 80360), (101, 80369), (109, 80402), (120, 80447), (136, 80534), (143, 80594), (148, 80630), (170, 80726),

Gene: Zeuska_8 Start: 4378, Stop: 4959, Start Num: 57

Candidate Starts for Zeuska_8:

(Start: 57 @4378 has 20 MA's), (85, 4480), (94, 4501), (105, 4549), (160, 4828),

Gene: ZhongYanYuan_92 Start: 59271, Stop: 59684, Start Num: 53

Candidate Starts for ZhongYanYuan_92:

(Start: 53 @59271 has 67 MA's), (92, 59382), (102, 59421), (105, 59430), (124, 59508), (139, 59580), (153, 59658), (158, 59676),

Gene: Zucker_50 Start: 32261, Stop: 32884, Start Num: 13

Candidate Starts for Zucker_50:

(1, 31859), (2, 31883), (3, 31901), (5, 32147), (10, 32249), (Start: 13 @32261 has 1 MA's), (23, 32354), (Start: 48 @32432 has 1 MA's), (77, 32501), (101, 32579), (103, 32588), (105, 32594), (106, 32597), (115, 32633), (129, 32708),

