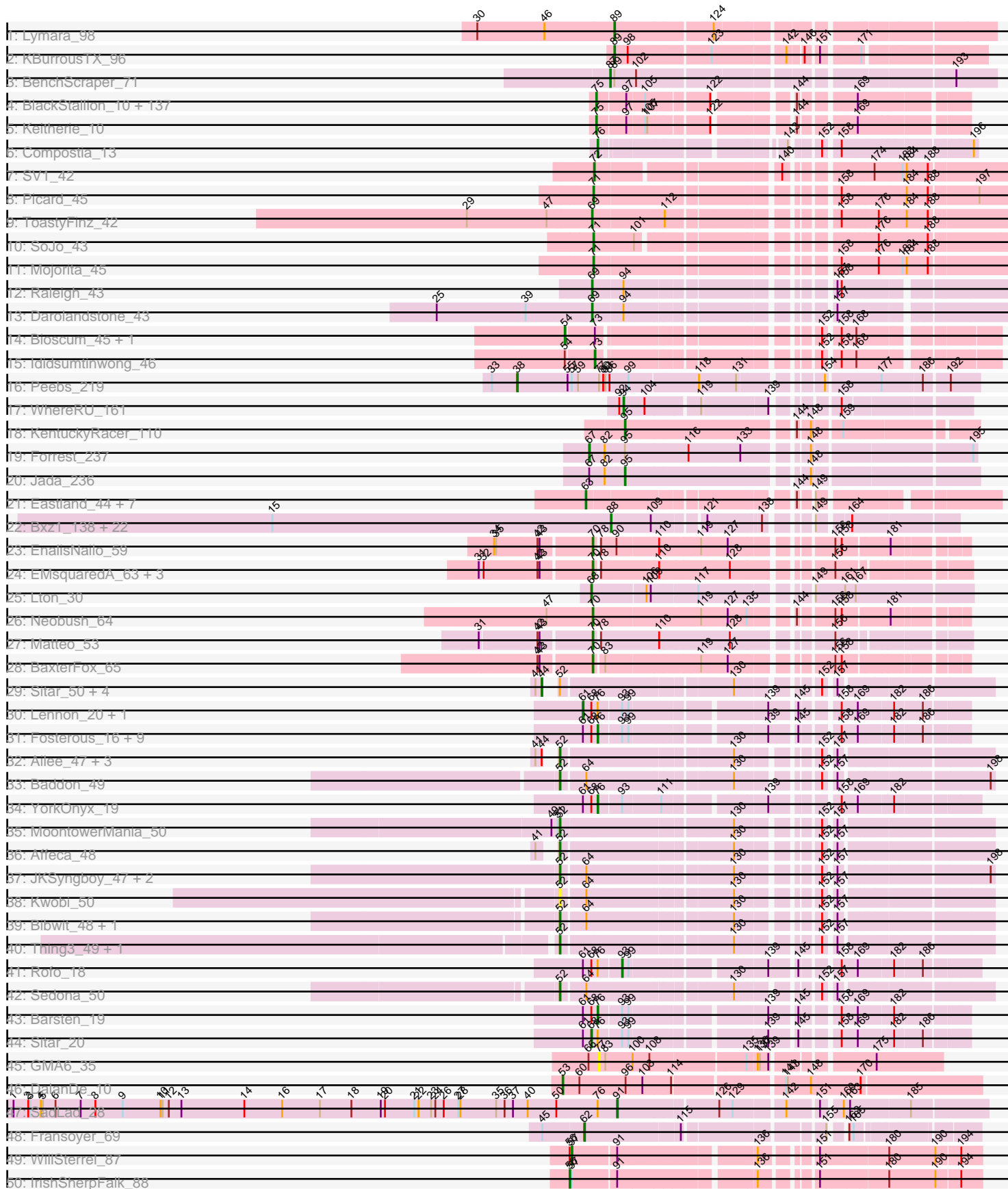
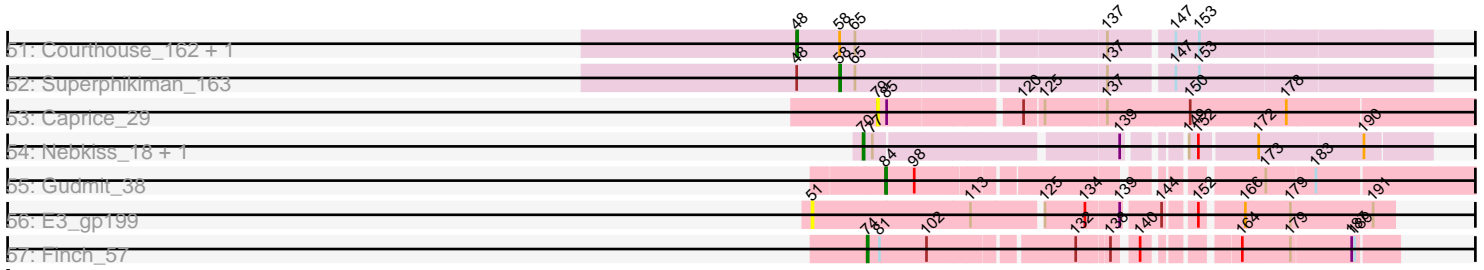


Pham 196269



Pham 196269



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 196269 Report

This analysis was run 12/09/24 on database version 580.

WARNING: Pham size does not match number of genes in report. Either unphamerated genes have been added (by you) or starterator has removed genes due to invalid start codon.

Pham number 196269 has 250 members, 7 are drafts.

Phages represented in each track:

- Track 1 : Lymara_98
- Track 2 : KBurroustX_96
- Track 3 : BenchScraper_71
- Track 4 : BlackStallion_10, Pops_10, Puhltonio_10, Durga_10, Sigman_10, Chunky_10, Riggan_10, Soto_10, Inchworm_10, HSavage_10, SDcharge11_10, Lego3393_10, Zaider_11, CampRoach_10, Olive_10, Swish_10, Dingo_10, Fringe_10, Gyarad_0010, Haimas_10, TomBombadil_10, ProfessorX_10, Oosterbaan_10, Quisquilliae_10, DirtJuice_10, QueenBeane_10, Anderson_10, Roliet_10, JacAttac_10, Phipps_10, Harvey_10, Pherdinand_10, Phamished_10, OliverWalter_10, Tomlarah_10, Phunky_10, Waterdiva_10, Matalotodo_10, FluffyNinja_10, PhrodoBaggins_105, JangoPhett_10, Surely_10, Yoshand_10, Chah_10, LeeLot_10, Hetaeria_10, Cannibal_10, Inverness_10, Etaye_10, Basato_11, Hertubise_10, AltPhacts_10, Vivaldi_10, Boehler_10, Craff_10, Slatt_10, Zelda_10, Plmatters_10, Buckeye_10, EmpTee_10, Melc17_10, Mesh1_10, Newman_10, Kikipoo_10, Badfish_10, Podrick_10, CamL_10, Frankicide_10, FriarPreacher_10, Scoot17C_10, Adriana_10, Nacho_0010, Lasso_10, Thora_10, Valjean_10, CheetO_10, Hartsy_10, Spartan300_10, Sheila_10, LasagnaCat_10, Virapocalypse_10, Pipsqueak_10, Samaymay_10, Morty_10, Andre_10, GeneCoco_10, Eremos_10, Roscoe_11, Tooj_10, Daka_10, Fang_10, Weher20_10, Serpentine_0010, ABU_10, KlimbOn_10, BlueHusk_10, Hamish_10, Prickles_10, Suffolk_10, Iridoclysis_10, Mikota_10, Orion_10, MiniBoss_10, OSmaximus_10, Lulwa_10, Colbert_10, UAch1_10, Trypo_10, Vista_10, Katniss_10, Gophee_10, Emiris_10, ThreeOh3D2_10, Kailash_10, Charles1_10, Horchata_10, KLucky39_10, PG1_10, Megatron_10, Skippy_10, Usavi_10, Magic8_10, PhatLouie_10, Omniscient_10, Zonia_10, Nicole21_10, YouGoGlencoco_10, Eugenia_10, ShiVal_10, Murdoc_10, KingVeVeVe_10, IsaacEli_10, Kloppinator_10, DoesntMatter_10, PhatCats2014_10, Numberten_10, Cobra_10, Serendipity_10
- Track 5 : Keitherie_10
- Track 6 : Compostia_13
- Track 7 : SV1_42
- Track 8 : Picard_45
- Track 9 : ToastyFinz_42
- Track 10 : SoJo_43

- Track 11 : Mojorita_45
- Track 12 : Raleigh_43
- Track 13 : Darolandstone_43
- Track 14 : Bioscum_45, PapayaSalad_44
- Track 15 : Ididsumtinwong_46
- Track 16 : Peebs_219
- Track 17 : WhereRU_161
- Track 18 : KentuckyRacer_110
- Track 19 : Forrest_237
- Track 20 : Jada_236
- Track 21 : Eastland_44, Piccadilly_44, Ignacio_44, AxeJC_43, HFrancette_45, Vondra_43, Eklok_44, Cumberbatch_45
- Track 22 : Bxz1_138, Mangeria_141, LRRHood_134, Cane17_133, Lukilu_131, MikeLiesIn_142, Pio_145, Jessibeth14_140, Shaqnato_134, Fludd_142, Breeniome_140, Shelob_143, Burrough_141, Phox_138, Teardrop_140, LolaVinca_141, HyRo_132, ChickenPhender_137, Cali_136, CharlieB_138, Koguma_138, Shifa_130, Rabinovish_140
- Track 23 : EnalisNailo_59
- Track 24 : EMSquaredA_63, Pollux_66, Floral_64, Marteena_62
- Track 25 : Lton_30
- Track 26 : Neobush_64
- Track 27 : Matteo_53
- Track 28 : BaxterFox_65
- Track 29 : Sitar_50, Vivi2_54, Keitabear_50, Lennon_50, Angelicage_48
- Track 30 : Lennon_20, Vivi2_18
- Track 31 : Fosterous_16, Love_20, Paries_19, Charming_16, BobBob_16, Nordenberg_13, Bibwit_19, Tangent_16, Keitabear_20, Galadriel_20
- Track 32 : Ailee_47, Love_55, Kewpiedoll_51, Shivanishola_50
- Track 33 : Baddon_49
- Track 34 : YorkOnyx_19
- Track 35 : MoontowerMania_50
- Track 36 : Affeca_48
- Track 37 : JKSyngboy_47, Saronaya_49, Gustavo_49
- Track 38 : Kwobi_50
- Track 39 : Bibwit_48, YorkOnyx_50
- Track 40 : Thing3_49, Kamashten_49
- Track 41 : Rofo_18
- Track 42 : Sedona_50
- Track 43 : Barsten_19
- Track 44 : Sitar_20
- Track 45 : GMA6_35
- Track 46 : DalanDe_10
- Track 47 : SadLad_28
- Track 48 : Fransoyer_69
- Track 49 : WillSterrel_87
- Track 50 : IrishSherpFalk_88
- Track 51 : Courthouse_162, Ariel_165
- Track 52 : Superphikiman_163
- Track 53 : Caprice_29
- Track 54 : Nebkiss_18, Gaia_17
- Track 55 : Gudmit_38
- Track 56 : E3_gp199
- Track 57 : Finch_57

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

The start number called the most often in the published annotations is 75, it was called in 139 of the 243 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- ABU_10, Adriana_10, AltPhacts_10, Anderson_10, Andre_10, Badfish_10, Basato_11, BlackStallion_10, BlueHusk_10, Boehler_10, Buckeye_10, CamL_10, CampRoach_10, Cannibal_10, Chah_10, Charles1_10, CheetO_10, Chunky_10, Cobra_10, Colbert_10, Craff_10, Daka_10, Dingo_10, DirtJuice_10, DoesntMatter_10, Durga_10, Emiris_10, EmpTee_10, Eremos_10, Etaye_10, Eugenia_10, Fang_10, FluffyNinja_10, Frankicide_10, FriarPreacher_10, Fringe_10, GeneCoco_10, Gophee_10, Gyarad_0010, HSavage_10, Haimas_10, Hamish_10, Hartsy_10, Harvey_10, Hertubise_10, Hetaeria_10, Horchata_10, Inchworm_10, Inverness_10, Iridoclysis_10, IsaacEli_10, JacAttac_10, JangoPhett_10, KLucky39_10, Kailash_10, Katniss_10, Keitherie_10, Kikipoo_10, KingVeVeVe_10, KlimbOn_10, Kloppinator_10, LasagnaCat_10, Lasso_10, LeeLot_10, Lego3393_10, Lulwa_10, Magic8_10, Matalotodo_10, Megatron_10, Melc17_10, Mesh1_10, Mikota_10, MiniBoss_10, Morty_10, Murdoc_10, Nacho_0010, Newman_10, Nicole21_10, Numberten_10, OSmaximus_10, Olive_10, OliverWalter_10, Omniscient_10, Oosterbaan_10, Orion_10, PG1_10, Phamished_10, PhatCats2014_10, PhatLouie_10, Pherdinand_10, Phipps_10, PhrodoBaggins_105, Phunky_10, Pipsqueak_10, Plmatters_10, Podrick_10, Pops_10, Prickles_10, ProfessorX_10, Puhitonio_10, QueenBeane_10, Quisquiliae_10, Riggan_10, Roliet_10, Roscoe_11, SDcharge11_10, Samaymay_10, Scoot17C_10, Serendipity_10, Serpentine_0010, Sheila_10, ShiVal_10, Sigman_10, Skippy_10, Slatt_10, Soto_10, Spartan300_10, Suffolk_10, Surely_10, Swish_10, Thora_10, ThreeOh3D2_10, TomBombadil_10, Tomlarah_10, Tooj_10, Trypo_10, UAch1_10, Usavi_10, Valjean_10, Virapocalypse_10, Vista_10, Vivaldi_10, Waterdiva_10, Weher20_10, Yoshand_10, YouGoGlencoco_10, Zaider_11, Zelda_10, Zonia_10,

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

-

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

- Affeca_48, Ailee_47, Angelicage_48, Ariel_165, AxeJC_43, Baddon_49, Barsten_19, BaxterFox_65, BenchScraper_71, Bibwit_19, Bibwit_48, Bioscum_45, BobBob_16, Breeniome_140, Burrough_141, Bxz1_138, Cali_136, Cane17_133, Caprice_29, CharlieB_138, Charming_16, ChickenPhender_137, Compostia_13, Courthouse_162, Cumberbatch_45, DalanDe_10, Darolandstone_43, E3_gp199, EMsquaredA_63, Eastland_44, Eklok_44, EnalisNailo_59, Finch_57, Floral_64, Fludd_142, Forrest_237, Fosterous_16, Fransoyer_69, GMA6_35, Gaia_17, Galadriel_20, Gudmit_38, Gustavo_49, HFrancette_45, HyRo_132, Ididsumtinwong_46, Ignacio_44, IrishSherpFalk_88, JKSyngboy_47, Jada_236, Jessibeth14_140, KBurrousTX_96, Kamashten_49, Keitabear_20, Keitabear_50, KentuckyRacer_110, Kewpiedoll_51, Koguma_138, Kwobi_50, LRRHood_134, Lennon_20, Lennon_50, LolaVinca_141, Love_20, Love_55, Lton_30, Lukilu_131, Lymara_98, Mangeria_141, Marteena_62, Matteo_53, MikeLiesIn_142, Moajorita_45, MoontowerMania_50, Nebkiss_18, Neobush_64, Nordenberg_13, PapayaSalad_44,

Paries_19, Peebs_219, Phox_138, Picard_45, Piccadilly_44, Pio_145, Pollux_66, Rabinovich_140, Raleigh_43, Rofo_18, SV1_42, SadLad_28, Saronaya_49, Sedona_50, Shaqnato_134, Shelob_143, Shifa_130, Shivanishola_50, Sitar_20, Sitar_50, SoJo_43, Superphikiman_163, Tangent_16, Teardrop_140, Thing3_49, ToastyFinz_42, Vivi2_18, Vivi2_54, Vondra_43, WhereRU_161, WillSterrel_87, YorkOnyx_19, YorkOnyx_50,

Summary by start number:

Start 38:

- Found in 1 of 250 (0.4%) of genes in pham
- Manual Annotations of this start: 1 of 243
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Peebs_219 (BE1),

Start 44:

- Found in 9 of 250 (3.6%) of genes in pham
- Manual Annotations of this start: 5 of 243
- Called 55.6% of time when present
- Phage (with cluster) where this start called: Angelicage_48 (DE1), Keitabear_50 (DE1), Lennon_50 (DE1), Sitar_50 (DE1), Vivi2_54 (DE1),

Start 48:

- Found in 3 of 250 (1.2%) of genes in pham
- Manual Annotations of this start: 2 of 243
- Called 66.7% of time when present
- Phage (with cluster) where this start called: Ariel_165 (J), Courthouse_162 (J),

Start 51:

- Found in 2 of 250 (0.8%) of genes in pham
- No Manual Annotations of this start.
- Called 50.0% of time when present
- Phage (with cluster) where this start called: E3_gp199 (singleton),

Start 52:

- Found in 21 of 250 (8.4%) of genes in pham
- Manual Annotations of this start: 12 of 243
- Called 76.2% of time when present
- Phage (with cluster) where this start called: Affeca_48 (DE1), Ailee_47 (DE1), Baddon_49 (DE1), Bibwit_48 (DE1), Gustavo_49 (DE1), JKSyngboy_47 (DE1), Kamashten_49 (DE1), Kewpiedoll_51 (DE1), Kwobi_50 (DE1), Love_55 (DE1), MoontowerMania_50 (DE1), Saronaya_49 (DE1), Sedona_50 (DE1), Shivanishola_50 (DE1), Thing3_49 (DE1), YorkOnyx_50 (DE1),

Start 53:

- Found in 1 of 250 (0.4%) of genes in pham
- Manual Annotations of this start: 1 of 243
- Called 100.0% of time when present
- Phage (with cluster) where this start called: DalanDe_10 (DQ),

Start 54:

- Found in 3 of 250 (1.2%) of genes in pham
- Manual Annotations of this start: 2 of 243

- Called 66.7% of time when present
- Phage (with cluster) where this start called: Bioscum_45 (BC3), PapayaSalad_44 (BC3),

Start 56:

- Found in 2 of 250 (0.8%) of genes in pham
- Manual Annotations of this start: 1 of 243
- Called 50.0% of time when present
- Phage (with cluster) where this start called: IrishSherpFalk_88 (F1),

Start 57:

- Found in 3 of 250 (1.2%) of genes in pham
- Manual Annotations of this start: 1 of 243
- Called 33.3% of time when present
- Phage (with cluster) where this start called: WillSterrel_87 (F1),

Start 58:

- Found in 3 of 250 (1.2%) of genes in pham
- Manual Annotations of this start: 1 of 243
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Superphikiman_163 (J),

Start 61:

- Found in 16 of 250 (6.4%) of genes in pham
- Manual Annotations of this start: 2 of 243
- Called 12.5% of time when present
- Phage (with cluster) where this start called: Lennon_20 (DE1), Vivi2_18 (DE1),

Start 62:

- Found in 1 of 250 (0.4%) of genes in pham
- Manual Annotations of this start: 1 of 243
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Fransoyer_69 (EG),

Start 63:

- Found in 8 of 250 (3.2%) of genes in pham
- Manual Annotations of this start: 8 of 243
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AxeJC_43 (BP), Cumberbatch_45 (BP), Eastland_44 (BP), Eklok_44 (BP), HFrancette_45 (BP), Ignacio_44 (BP), Piccadilly_44 (BP), Vondra_43 (BP),

Start 67:

- Found in 2 of 250 (0.8%) of genes in pham
- Manual Annotations of this start: 1 of 243
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Forrest_237 (BK1),

Start 68:

- Found in 17 of 250 (6.8%) of genes in pham
- Manual Annotations of this start: 2 of 243
- Called 11.8% of time when present
- Phage (with cluster) where this start called: Lton_30 (CZ), Sitar_20 (DE1),

Start 69:

- Found in 3 of 250 (1.2%) of genes in pham
- Manual Annotations of this start: 3 of 243
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Darolandstone_43 (BC2), Raleigh_43 (BC2), ToastyFinz_42 (BC1),

Start 70:

- Found in 10 of 250 (4.0%) of genes in pham
- Manual Annotations of this start: 10 of 243
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BaxterFox_65 (CZ3), EMsquaredA_63 (CY1), EnalisNailo_59 (CY1), Floral_64 (CY1), Gaia_17 (X), Marteena_62 (CY1), Matteo_53 (CZ2), Nebkiss_18 (X), Neobush_64 (CZ1), Pollux_66 (CY1),

Start 71:

- Found in 3 of 250 (1.2%) of genes in pham
- Manual Annotations of this start: 3 of 243
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Moajorita_45 (BC1), Picard_45 (BC1), SoJo_43 (BC1),

Start 72:

- Found in 1 of 250 (0.4%) of genes in pham
- Manual Annotations of this start: 1 of 243
- Called 100.0% of time when present
- Phage (with cluster) where this start called: SV1_42 (BC1),

Start 73:

- Found in 3 of 250 (1.2%) of genes in pham
- Manual Annotations of this start: 1 of 243
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Ididsumtinwong_46 (BC3),

Start 74:

- Found in 1 of 250 (0.4%) of genes in pham
- Manual Annotations of this start: 1 of 243
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Finch_57 (singleton),

Start 75:

- Found in 139 of 250 (55.6%) of genes in pham
- Manual Annotations of this start: 139 of 243
- Called 100.0% of time when present
- Phage (with cluster) where this start called: ABU_10 (B1), Adriana_10 (B1), AltPhacts_10 (B1), Anderson_10 (B1), Andre_10 (B1), Badfish_10 (B1), Basato_11 (B1), BlackStallion_10 (B1), BlueHusk_10 (B1), Boehler_10 (B1), Buckeye_10 (B1), CamL_10 (B1), CampRoach_10 (B1), Cannibal_10 (B1), Chah_10 (B1), Charles1_10 (B1), CheetO_10 (B1), Chunky_10 (B1), Cobra_10 (B1), Colbert_10 (B1), Craff_10 (B1), Daka_10 (B1), Dingo_10 (B1), DirtJuice_10 (B1), DoesntMatter_10 (B1), Durga_10 (B1), Emiris_10 (B1), EmpTee_10 (B1), Eremos_10 (B1), Etaye_10 (B1), Eugenia_10 (B1), Fang_10 (B1), FluffyNinja_10 (B1), Frankicide_10 (B1),

FriarPreacher_10 (B1), Fringe_10 (B1), GeneCoco_10 (B1), Gophee_10 (B1), Gyrad_0010 (B1), HSavage_10 (B1), Haimas_10 (B1), Hamish_10 (B1), Hartsy_10 (B1), Harvey_10 (B1), Hertubise_10 (B1), Hetaeria_10 (B1), Horchata_10 (B1), Inchworm_10 (B1), Inverness_10 (B1), Iridoclysis_10 (B1), IsaacEli_10 (B1), JacAttac_10 (B1), JangoPhett_10 (B1), KLucky39_10 (B1), Kailash_10 (B1), Katniss_10 (B1), Keitherie_10 (B1), Kikipoo_10 (B1), KingVeVeVe_10 (B1), KlimbOn_10 (B1), Kloppinator_10 (B1), LasagnaCat_10 (B1), Lasso_10 (B1), LeeLot_10 (B1), Lego3393_10 (B1), Lulwa_10 (B1), Magic8_10 (B1), Matalotodo_10 (B1), Megatron_10 (B1), Melc17_10 (B1), Mesh1_10 (B1), Mikota_10 (B1), MiniBoss_10 (B1), Morty_10 (B1), Murdoc_10 (B1), Nacho_0010 (B1), Newman_10 (B1), Nicole21_10 (B1), Numberten_10 (B1), OSmaximus_10 (B1), Olive_10 (B1), OliverWalter_10 (B1), Omniscient_10 (B1), Oosterbaan_10 (B1), Orion_10 (B1), PG1_10 (B1), Phamished_10 (B1), PhatCats2014_10 (B1), PhatLouie_10 (B1), Pherdinand_10 (B1), Phipps_10 (B1), PhrodoBaggins_105 (B1), Phunky_10 (B1), Pipsqueak_10 (B1), Plmatters_10 (B1), Podrick_10 (B1), Pops_10 (B1), Prickles_10 (B1), ProfessorX_10 (B1), Puhltonio_10 (B1), QueenBeane_10 (B1), Quisquillae_10 (B1), Riggan_10 (B1), Roliet_10 (B1), Roscoe_11 (B1), SDcharge11_10 (B1), Samaymay_10 (B1), Scoot17C_10 (B1), Serendipity_10 (B1), Serpentine_0010 (B1), Sheila_10 (B1), ShiVal_10 (B1), Sigman_10 (B1), Skippy_10 (B1), Slatt_10 (B1), Soto_10 (B1), Spartan300_10 (B1), Suffolk_10 (B1), Surely_10 (B1), Swish_10 (B1), Thora_10 (B1), ThreeOh3D2_10 (B1), TomBombadil_10 (B1), Tomlarah_10 (B1), Tooj_10 (B1), Trypo_10 (B1), UAch1_10 (B1), Usavi_10 (B1), Valjean_10 (B1), Virapocalypse_10 (B1), Vista_10 (B1), Vivaldi_10 (B1), Waterdiva_10 (B1), Weher20_10 (B1), Yoshand_10 (B1), YouGoGlencoco_10 (B1), Zaider_11 (B1), Zelda_10 (B1), Zonia_10 (B1),

Start 76:

- Found in 18 of 250 (7.2%) of genes in pham
- Manual Annotations of this start: 13 of 243
- Called 72.2% of time when present
- Phage (with cluster) where this start called: Barsten_19 (DE1), Bibwit_19 (DE1), BobBob_16 (DE1), Charming_16 (DE1), Compostia_13 (B3), Fosterous_16 (DE1), Galadriel_20 (DE1), Keitabear_20 (DE1), Love_20 (DE1), Nordenberg_13 (DE1), Paries_19 (DE1), Tangent_16 (DE1), YorkOnyx_19 (DE1),

Start 77:

- Found in 4 of 250 (1.6%) of genes in pham
- No Manual Annotations of this start.
- Called 25.0% of time when present
- Phage (with cluster) where this start called: GMA6_35 (DQ),

Start 79:

- Found in 1 of 250 (0.4%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Caprice_29 (S),

Start 84:

- Found in 1 of 250 (0.4%) of genes in pham
- Manual Annotations of this start: 1 of 243
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Gudmit_38 (singleton),

Start 87:

- Found in 1 of 250 (0.4%) of genes in pham
- Manual Annotations of this start: 1 of 243
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BenchScraper_71 (AY),

Start 88:

- Found in 23 of 250 (9.2%) of genes in pham
- Manual Annotations of this start: 23 of 243
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Breeniome_140 (C1), Burrough_141 (C1), Bxz1_138 (C1), Cali_136 (C1), Cane17_133 (C1), CharlieB_138 (C1), ChickenPhender_137 (C1), Fludd_142 (C1), HyRo_132 (C1), Jessibeth14_140 (C1), Koguma_138 (C1), LRRHood_134 (C1), LolaVinca_141 (C1), Lukilu_131 (C1), Mangeria_141 (C1), MikeLiesIn_142 (C1), Phox_138 (C1), Pio_145 (C1), Rabinovish_140 (C1), Shaqnato_134 (C1), Shelob_143 (C1), Shifa_130 (C1), Teardrop_140 (C1),

Start 89:

- Found in 3 of 250 (1.2%) of genes in pham
- Manual Annotations of this start: 2 of 243
- Called 66.7% of time when present
- Phage (with cluster) where this start called: KBurroustX_96 (AR), Lymara_98 (AR),

Start 91:

- Found in 3 of 250 (1.2%) of genes in pham
- Manual Annotations of this start: 1 of 243
- Called 33.3% of time when present
- Phage (with cluster) where this start called: SadLad_28 (EG),

Start 93:

- Found in 16 of 250 (6.4%) of genes in pham
- Manual Annotations of this start: 1 of 243
- Called 6.2% of time when present
- Phage (with cluster) where this start called: Rofo_18 (DE1),

Start 94:

- Found in 3 of 250 (1.2%) of genes in pham
- Manual Annotations of this start: 1 of 243
- Called 33.3% of time when present
- Phage (with cluster) where this start called: WhereRU_161 (BE1),

Start 95:

- Found in 3 of 250 (1.2%) of genes in pham
- Manual Annotations of this start: 2 of 243
- Called 66.7% of time when present
- Phage (with cluster) where this start called: Jada_236 (BK1), KentuckyRacer_110 (BE2),

Summary by clusters:

There are 25 clusters represented in this pham: singleton, CZ2, CZ3, CZ1, BP, DQ, C1, CY1, EG, J, CZ, S, AR, BK1, AY, X, F1, DE1, B1, B3, BE2, BE1, BC1, BC2, BC3,

Info for manual annotations of cluster AR:

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

Info for manual annotations of cluster AY:

- Start number 87 was manually annotated 1 time for cluster AY.

Info for manual annotations of cluster B1:

- Start number 75 was manually annotated 139 times for cluster B1.

Info for manual annotations of cluster B3:

- Start number 76 was manually annotated 1 time for cluster B3.

Info for manual annotations of cluster BC1:

- Start number 69 was manually annotated 1 time for cluster BC1.
- Start number 71 was manually annotated 3 times for cluster BC1.
- Start number 72 was manually annotated 1 time for cluster BC1.

Info for manual annotations of cluster BC2:

- Start number 69 was manually annotated 2 times for cluster BC2.

Info for manual annotations of cluster BC3:

- Start number 54 was manually annotated 2 times for cluster BC3.
- Start number 73 was manually annotated 1 time for cluster BC3.

Info for manual annotations of cluster BE1:

- Start number 38 was manually annotated 1 time for cluster BE1.
- Start number 94 was manually annotated 1 time for cluster BE1.

Info for manual annotations of cluster BE2:

- Start number 95 was manually annotated 1 time for cluster BE2.

Info for manual annotations of cluster BK1:

- Start number 67 was manually annotated 1 time for cluster BK1.
- Start number 95 was manually annotated 1 time for cluster BK1.

Info for manual annotations of cluster BP:

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

Info for manual annotations of cluster C1:

- Start number 88 was manually annotated 23 times for cluster C1.

Info for manual annotations of cluster CY1:

- Start number 70 was manually annotated 5 times for cluster CY1.

Info for manual annotations of cluster CZ:

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

Info for manual annotations of cluster CZ1:

- Start number 70 was manually annotated 1 time for cluster CZ1.

Info for manual annotations of cluster CZ2:

- Start number 70 was manually annotated 1 time for cluster CZ2.

Info for manual annotations of cluster CZ3:

- Start number 70 was manually annotated 1 time for cluster CZ3.

Info for manual annotations of cluster DE1:

- Start number 44 was manually annotated 5 times for cluster DE1.
- Start number 52 was manually annotated 12 times for cluster DE1.
- Start number 61 was manually annotated 2 times for cluster DE1.
- Start number 68 was manually annotated 1 time for cluster DE1.
- Start number 76 was manually annotated 12 times for cluster DE1.
- Start number 93 was manually annotated 1 time for cluster DE1.

Info for manual annotations of cluster DQ:

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

Info for manual annotations of cluster EG:

- Start number 62 was manually annotated 1 time for cluster EG.
- Start number 91 was manually annotated 1 time for cluster EG.

Info for manual annotations of cluster F1:

- Start number 56 was manually annotated 1 time for cluster F1.
- Start number 57 was manually annotated 1 time for cluster F1.

Info for manual annotations of cluster J:

- Start number 48 was manually annotated 2 times for cluster J.
- Start number 58 was manually annotated 1 time for cluster J.

Info for manual annotations of cluster X:

- Start number 70 was manually annotated 2 times for cluster X.

Gene Information:

Gene: ABU_10 Start: 8941, Stop: 9375, Start Num: 75

Candidate Starts for ABU_10:

(Start: 75 @8941 has 139 MA's), (97, 8980), (105, 9004), (122, 9085), (144, 9175), (169, 9238),

Gene: Adriana_10 Start: 8943, Stop: 9377, Start Num: 75

Candidate Starts for Adriana_10:

(Start: 75 @8943 has 139 MA's), (97, 8982), (105, 9006), (122, 9087), (144, 9177), (169, 9240),

Gene: Affeca_48 Start: 42397, Stop: 42915, Start Num: 52

Candidate Starts for Affeca_48:

(41, 42385), (Start: 52 @42397 has 12 MA's), (130, 42613), (152, 42703), (157, 42715),

Gene: Ailee_47 Start: 42002, Stop: 42520, Start Num: 52

Candidate Starts for Ailee_47:

(41, 41990), (Start: 44 @41999 has 5 MA's), (Start: 52 @42002 has 12 MA's), (130, 42218), (152, 42308), (157, 42320),

Gene: AltPhacts_10 Start: 8944, Stop: 9378, Start Num: 75

Candidate Starts for AltPhacts_10:

(Start: 75 @8944 has 139 MA's), (97, 8983), (105, 9007), (122, 9088), (144, 9178), (169, 9241),

Gene: Anderson_10 Start: 8943, Stop: 9377, Start Num: 75

Candidate Starts for Anderson_10:

(Start: 75 @8943 has 139 MA's), (97, 8982), (105, 9006), (122, 9087), (144, 9177), (169, 9240),

Gene: Andre_10 Start: 8944, Stop: 9378, Start Num: 75

Candidate Starts for Andre_10:

(Start: 75 @8944 has 139 MA's), (97, 8983), (105, 9007), (122, 9088), (144, 9178), (169, 9241),

Gene: Angelicage_48 Start: 42812, Stop: 43333, Start Num: 44

Candidate Starts for Angelicage_48:

(41, 42803), (Start: 44 @42812 has 5 MA's), (Start: 52 @42815 has 12 MA's), (130, 43031), (152, 43121), (157, 43133),

Gene: Ariel_165 Start: 84168, Stop: 84737, Start Num: 48

Candidate Starts for Ariel_165:

(Start: 48 @84168 has 2 MA's), (Start: 58 @84210 has 1 MA's), (65, 84225), (137, 84447), (147, 84504), (153, 84525),

Gene: AxeJC_43 Start: 29903, Stop: 30394, Start Num: 63

Candidate Starts for AxeJC_43:

(Start: 63 @29903 has 8 MA's), (144, 30155), (149, 30170),

Gene: Baddon_49 Start: 43084, Stop: 43602, Start Num: 52

Candidate Starts for Baddon_49:

(Start: 52 @43084 has 12 MA's), (64, 43114), (130, 43300), (152, 43390), (157, 43402), (198, 43597),

Gene: Badfish_10 Start: 8943, Stop: 9377, Start Num: 75

Candidate Starts for Badfish_10:

(Start: 75 @8943 has 139 MA's), (97, 8982), (105, 9006), (122, 9087), (144, 9177), (169, 9240),

Gene: Barsten_19 Start: 14612, Stop: 15058, Start Num: 76

Candidate Starts for Barsten_19:

(Start: 61 @14591 has 2 MA's), (Start: 68 @14603 has 2 MA's), (Start: 76 @14612 has 13 MA's), (Start: 93 @14642 has 1 MA's), (99, 14651), (139, 14822), (145, 14855), (158, 14897), (169, 14918), (182, 14963),

Gene: Basato_11 Start: 9177, Stop: 9611, Start Num: 75

Candidate Starts for Basato_11:

(Start: 75 @9177 has 139 MA's), (97, 9216), (105, 9240), (122, 9321), (144, 9411), (169, 9474),

Gene: BaxterFox_65 Start: 44276, Stop: 44731, Start Num: 70

Candidate Starts for BaxterFox_65:

(42, 44204), (43, 44207), (Start: 70 @44276 has 10 MA's), (83, 44288), (119, 44417), (127, 44453), (156, 44570), (158, 44579),

Gene: BenchScraper_71 Start: 37047, Stop: 37535, Start Num: 87

Candidate Starts for BenchScraper_71:

(Start: 87 @37047 has 1 MA's), (Start: 89 @37053 has 2 MA's), (102, 37083), (193, 37479),

Gene: Bibwit_48 Start: 41643, Stop: 42161, Start Num: 52

Candidate Starts for Bibwit_48:

(Start: 52 @41643 has 12 MA's), (64, 41673), (130, 41859), (152, 41949), (157, 41961),

Gene: Bibwit_19 Start: 14856, Stop: 15302, Start Num: 76

Candidate Starts for Bibwit_19:

(Start: 61 @14835 has 2 MA's), (Start: 68 @14847 has 2 MA's), (Start: 76 @14856 has 13 MA's),
(Start: 93 @14886 has 1 MA's), (99, 14895), (139, 15066), (145, 15099), (158, 15141), (169, 15162),
(182, 15207), (186, 15243),

Gene: Bioscum_45 Start: 29978, Stop: 30484, Start Num: 54

Candidate Starts for Bioscum_45:

(Start: 54 @29978 has 2 MA's), (Start: 73 @30014 has 1 MA's), (152, 30272), (158, 30290), (168,
30311),

Gene: BlackStallion_10 Start: 8941, Stop: 9375, Start Num: 75

Candidate Starts for BlackStallion_10:

(Start: 75 @8941 has 139 MA's), (97, 8980), (105, 9004), (122, 9085), (144, 9175), (169, 9238),

Gene: BlueHusk_10 Start: 8940, Stop: 9374, Start Num: 75

Candidate Starts for BlueHusk_10:

(Start: 75 @8940 has 139 MA's), (97, 8979), (105, 9003), (122, 9084), (144, 9174), (169, 9237),

Gene: BobBob_16 Start: 13466, Stop: 13912, Start Num: 76

Candidate Starts for BobBob_16:

(Start: 61 @13445 has 2 MA's), (Start: 68 @13457 has 2 MA's), (Start: 76 @13466 has 13 MA's),
(Start: 93 @13496 has 1 MA's), (99, 13505), (139, 13676), (145, 13709), (158, 13751), (169, 13772),
(182, 13817), (186, 13853),

Gene: Boehler_10 Start: 8943, Stop: 9377, Start Num: 75

Candidate Starts for Boehler_10:

(Start: 75 @8943 has 139 MA's), (97, 8982), (105, 9006), (122, 9087), (144, 9177), (169, 9240),

Gene: Breeniome_140 Start: 81159, Stop: 81575, Start Num: 88

Candidate Starts for Breeniome_140:

(15, 80682), (Start: 88 @81159 has 23 MA's), (109, 81216), (121, 81279), (138, 81348), (149, 81393),
(164, 81432),

Gene: Buckeye_10 Start: 8945, Stop: 9379, Start Num: 75

Candidate Starts for Buckeye_10:

(Start: 75 @8945 has 139 MA's), (97, 8984), (105, 9008), (122, 9089), (144, 9179), (169, 9242),

Gene: Burrough_141 Start: 83310, Stop: 83726, Start Num: 88

Candidate Starts for Burrough_141:

(15, 82833), (Start: 88 @83310 has 23 MA's), (109, 83367), (121, 83430), (138, 83499), (149, 83544),
(164, 83583),

Gene: Bxz1_138 Start: 84513, Stop: 84929, Start Num: 88

Candidate Starts for Bxz1_138:

(15, 84036), (Start: 88 @84513 has 23 MA's), (109, 84570), (121, 84633), (138, 84702), (149, 84747),
(164, 84786),

Gene: Cali_136 Start: 83312, Stop: 83728, Start Num: 88

Candidate Starts for Cali_136:

(15, 82835), (Start: 88 @83312 has 23 MA's), (109, 83369), (121, 83432), (138, 83501), (149, 83546), (164, 83585),

Gene: CamL_10 Start: 8940, Stop: 9374, Start Num: 75

Candidate Starts for CamL_10:

(Start: 75 @8940 has 139 MA's), (97, 8979), (105, 9003), (122, 9084), (144, 9174), (169, 9237),

Gene: CampRoach_10 Start: 8940, Stop: 9374, Start Num: 75

Candidate Starts for CampRoach_10:

(Start: 75 @8940 has 139 MA's), (97, 8979), (105, 9003), (122, 9084), (144, 9174), (169, 9237),

Gene: Cane17_133 Start: 84174, Stop: 84590, Start Num: 88

Candidate Starts for Cane17_133:

(15, 83697), (Start: 88 @84174 has 23 MA's), (109, 84231), (121, 84294), (138, 84363), (149, 84408), (164, 84447),

Gene: Cannibal_10 Start: 8943, Stop: 9377, Start Num: 75

Candidate Starts for Cannibal_10:

(Start: 75 @8943 has 139 MA's), (97, 8982), (105, 9006), (122, 9087), (144, 9177), (169, 9240),

Gene: Caprice_29 Start: 9273, Stop: 9845, Start Num: 79

Candidate Starts for Caprice_29:

(79, 9273), (85, 9282), (120, 9402), (125, 9417), (137, 9474), (150, 9552), (178, 9645),

Gene: Chah_10 Start: 8941, Stop: 9375, Start Num: 75

Candidate Starts for Chah_10:

(Start: 75 @8941 has 139 MA's), (97, 8980), (105, 9004), (122, 9085), (144, 9175), (169, 9238),

Gene: Charles1_10 Start: 8943, Stop: 9377, Start Num: 75

Candidate Starts for Charles1_10:

(Start: 75 @8943 has 139 MA's), (97, 8982), (105, 9006), (122, 9087), (144, 9177), (169, 9240),

Gene: CharlieB_138 Start: 82195, Stop: 82611, Start Num: 88

Candidate Starts for CharlieB_138:

(15, 81718), (Start: 88 @82195 has 23 MA's), (109, 82252), (121, 82315), (138, 82384), (149, 82429), (164, 82468),

Gene: Charming_16 Start: 13468, Stop: 13914, Start Num: 76

Candidate Starts for Charming_16:

(Start: 61 @13447 has 2 MA's), (Start: 68 @13459 has 2 MA's), (Start: 76 @13468 has 13 MA's), (Start: 93 @13498 has 1 MA's), (99, 13507), (139, 13678), (145, 13711), (158, 13753), (169, 13774), (182, 13819), (186, 13855),

Gene: CheetO_10 Start: 8943, Stop: 9377, Start Num: 75

Candidate Starts for CheetO_10:

(Start: 75 @8943 has 139 MA's), (97, 8982), (105, 9006), (122, 9087), (144, 9177), (169, 9240),

Gene: ChickenPhender_137 Start: 81501, Stop: 81917, Start Num: 88

Candidate Starts for ChickenPhender_137:

(15, 81024), (Start: 88 @81501 has 23 MA's), (109, 81558), (121, 81621), (138, 81690), (149, 81735), (164, 81774),

Gene: Chunky_10 Start: 8943, Stop: 9377, Start Num: 75

Candidate Starts for Chunky_10:

(Start: 75 @8943 has 139 MA's), (97, 8982), (105, 9006), (122, 9087), (144, 9177), (169, 9240),

Gene: Cobra_10 Start: 8940, Stop: 9374, Start Num: 75

Candidate Starts for Cobra_10:

(Start: 75 @8940 has 139 MA's), (97, 8979), (105, 9003), (122, 9084), (144, 9174), (169, 9237),

Gene: Colbert_10 Start: 8940, Stop: 9374, Start Num: 75

Candidate Starts for Colbert_10:

(Start: 75 @8940 has 139 MA's), (97, 8979), (105, 9003), (122, 9084), (144, 9174), (169, 9237),

Gene: Compostia_13 Start: 10667, Stop: 11107, Start Num: 76

Candidate Starts for Compostia_13:

(Start: 76 @10667 has 13 MA's), (143, 10889), (152, 10919), (158, 10937), (196, 11102),

Gene: Courthouse_162 Start: 84612, Stop: 85181, Start Num: 48

Candidate Starts for Courthouse_162:

(Start: 48 @84612 has 2 MA's), (Start: 58 @84654 has 1 MA's), (65, 84669), (137, 84891), (147, 84948), (153, 84969),

Gene: Craff_10 Start: 8943, Stop: 9377, Start Num: 75

Candidate Starts for Craff_10:

(Start: 75 @8943 has 139 MA's), (97, 8982), (105, 9006), (122, 9087), (144, 9177), (169, 9240),

Gene: Cumberbatch_45 Start: 30201, Stop: 30692, Start Num: 63

Candidate Starts for Cumberbatch_45:

(Start: 63 @30201 has 8 MA's), (144, 30453), (149, 30468),

Gene: Daka_10 Start: 8946, Stop: 9380, Start Num: 75

Candidate Starts for Daka_10:

(Start: 75 @8946 has 139 MA's), (97, 8985), (105, 9009), (122, 9090), (144, 9180), (169, 9243),

Gene: DalanDe_10 Start: 6059, Stop: 6628, Start Num: 53

Candidate Starts for DalanDe_10:

(Start: 53 @6059 has 1 MA's), (60, 6083), (96, 6149), (103, 6173), (114, 6212), (141, 6356), (143, 6359), (148, 6392), (170, 6461),

Gene: Darolandstone_43 Start: 33080, Stop: 33595, Start Num: 69

Candidate Starts for Darolandstone_43:

(25, 32861), (39, 32987), (Start: 69 @33080 has 3 MA's), (Start: 94 @33119 has 1 MA's), (157, 33359),

Gene: Dingo_10 Start: 8940, Stop: 9374, Start Num: 75

Candidate Starts for Dingo_10:

(Start: 75 @8940 has 139 MA's), (97, 8979), (105, 9003), (122, 9084), (144, 9174), (169, 9237),

Gene: DirtJuice_10 Start: 8943, Stop: 9377, Start Num: 75

Candidate Starts for DirtJuice_10:

(Start: 75 @8943 has 139 MA's), (97, 8982), (105, 9006), (122, 9087), (144, 9177), (169, 9240),

Gene: DoesntMatter_10 Start: 8940, Stop: 9374, Start Num: 75

Candidate Starts for DoesntMatter_10:

(Start: 75 @8940 has 139 MA's), (97, 8979), (105, 9003), (122, 9084), (144, 9174), (169, 9237),

Gene: Durga_10 Start: 8957, Stop: 9391, Start Num: 75

Candidate Starts for Durga_10:

(Start: 75 @8957 has 139 MA's), (97, 8996), (105, 9020), (122, 9101), (144, 9191), (169, 9254),

Gene: E3_gp199 Start: 129947, Stop: 130468, Start Num: 51

Candidate Starts for E3_gp199:

(51, 129947), (113, 130100), (125, 130163), (134, 130202), (139, 130232), (144, 130265), (152, 130289), (166, 130325), (179, 130367), (191, 130448),

Gene: EMSquaredA_63 Start: 42816, Stop: 43277, Start Num: 70

Candidate Starts for EMSquaredA_63:

(31, 42666), (32, 42669), (42, 42744), (43, 42747), (Start: 70 @42816 has 10 MA's), (78, 42822), (110, 42903), (128, 42999), (156, 43116),

Gene: Eastland_44 Start: 30161, Stop: 30652, Start Num: 63

Candidate Starts for Eastland_44:

(Start: 63 @30161 has 8 MA's), (144, 30413), (149, 30428),

Gene: Eklok_44 Start: 29960, Stop: 30451, Start Num: 63

Candidate Starts for Eklok_44:

(Start: 63 @29960 has 8 MA's), (144, 30212), (149, 30227),

Gene: Emiris_10 Start: 8944, Stop: 9378, Start Num: 75

Candidate Starts for Emiris_10:

(Start: 75 @8944 has 139 MA's), (97, 8983), (105, 9007), (122, 9088), (144, 9178), (169, 9241),

Gene: EmpTee_10 Start: 8944, Stop: 9378, Start Num: 75

Candidate Starts for EmpTee_10:

(Start: 75 @8944 has 139 MA's), (97, 8983), (105, 9007), (122, 9088), (144, 9178), (169, 9241),

Gene: EnalisNailo_59 Start: 42622, Stop: 43077, Start Num: 70

Candidate Starts for EnalisNailo_59:

(34, 42490), (35, 42493), (42, 42550), (43, 42553), (Start: 70 @42622 has 10 MA's), (78, 42628), (90, 42649), (110, 42706), (119, 42763), (127, 42799), (156, 42916), (158, 42925), (181, 42985),

Gene: Eremos_10 Start: 8937, Stop: 9371, Start Num: 75

Candidate Starts for Eremos_10:

(Start: 75 @8937 has 139 MA's), (97, 8976), (105, 9000), (122, 9081), (144, 9171), (169, 9234),

Gene: Etaye_10 Start: 8940, Stop: 9374, Start Num: 75

Candidate Starts for Etaye_10:

(Start: 75 @8940 has 139 MA's), (97, 8979), (105, 9003), (122, 9084), (144, 9174), (169, 9237),

Gene: Eugenia_10 Start: 8944, Stop: 9378, Start Num: 75

Candidate Starts for Eugenia_10:

(Start: 75 @8944 has 139 MA's), (97, 8983), (105, 9007), (122, 9088), (144, 9178), (169, 9241),

Gene: Fang_10 Start: 8944, Stop: 9378, Start Num: 75

Candidate Starts for Fang_10:

(Start: 75 @8944 has 139 MA's), (97, 8983), (105, 9007), (122, 9088), (144, 9178), (169, 9241),

Gene: Finch_57 Start: 47485, Stop: 47922, Start Num: 74

Candidate Starts for Finch_57:

(Start: 74 @47485 has 1 MA's), (81, 47497), (102, 47542), (132, 47668), (138, 47695), (140, 47713), (164, 47779), (179, 47824), (187, 47881), (189, 47884),

Gene: Floral_64 Start: 44701, Stop: 45162, Start Num: 70

Candidate Starts for Floral_64:

(31, 44551), (32, 44554), (42, 44629), (43, 44632), (Start: 70 @44701 has 10 MA's), (78, 44707), (110, 44788), (128, 44884), (156, 45001),

Gene: Fludd_142 Start: 82309, Stop: 82725, Start Num: 88

Candidate Starts for Fludd_142:

(15, 81832), (Start: 88 @82309 has 23 MA's), (109, 82366), (121, 82429), (138, 82498), (149, 82543), (164, 82582),

Gene: FluffyNinja_10 Start: 8941, Stop: 9375, Start Num: 75

Candidate Starts for FluffyNinja_10:

(Start: 75 @8941 has 139 MA's), (97, 8980), (105, 9004), (122, 9085), (144, 9175), (169, 9238),

Gene: Forrest_237 Start: 114096, Stop: 114590, Start Num: 67

Candidate Starts for Forrest_237:

(Start: 67 @114096 has 1 MA's), (82, 114117), (Start: 95 @114144 has 2 MA's), (116, 114231), (133, 114303), (148, 114378), (195, 114585),

Gene: Fosterous_16 Start: 14357, Stop: 14803, Start Num: 76

Candidate Starts for Fosterous_16:

(Start: 61 @14336 has 2 MA's), (Start: 68 @14348 has 2 MA's), (Start: 76 @14357 has 13 MA's), (Start: 93 @14387 has 1 MA's), (99, 14396), (139, 14567), (145, 14600), (158, 14642), (169, 14663), (182, 14708), (186, 14744),

Gene: Frankicide_10 Start: 8945, Stop: 9379, Start Num: 75

Candidate Starts for Frankicide_10:

(Start: 75 @8945 has 139 MA's), (97, 8984), (105, 9008), (122, 9089), (144, 9179), (169, 9242),

Gene: Fransoyer_69 Start: 49557, Stop: 49093, Start Num: 62

Candidate Starts for Fransoyer_69:

(45, 49611), (Start: 62 @49557 has 1 MA's), (115, 49434), (155, 49263), (162, 49248), (165, 49242),

Gene: FriarPreacher_10 Start: 8946, Stop: 9380, Start Num: 75

Candidate Starts for FriarPreacher_10:

(Start: 75 @8946 has 139 MA's), (97, 8985), (105, 9009), (122, 9090), (144, 9180), (169, 9243),

Gene: Fringe_10 Start: 8941, Stop: 9375, Start Num: 75

Candidate Starts for Fringe_10:

(Start: 75 @8941 has 139 MA's), (97, 8980), (105, 9004), (122, 9085), (144, 9175), (169, 9238),

Gene: GMA6_35 Start: 29073, Stop: 29516, Start Num: 77

Candidate Starts for GMA6_35:

(66, 29058), (77, 29073), (83, 29082), (100, 29121), (108, 29145), (135, 29274), (136, 29286), (137, 29289), (139, 29301), (175, 29424),

Gene: Gaia_17 Start: 16945, Stop: 17430, Start Num: 70

Candidate Starts for Gaia_17:

(Start: 70 @16945 has 10 MA's), (77, 16954), (139, 17170), (149, 17209), (152, 17218), (172, 17269), (190, 17368),

Gene: Galadriel_20 Start: 14216, Stop: 14662, Start Num: 76

Candidate Starts for Galadriel_20:

(Start: 61 @14195 has 2 MA's), (Start: 68 @14207 has 2 MA's), (Start: 76 @14216 has 13 MA's), (Start: 93 @14246 has 1 MA's), (99, 14255), (139, 14426), (145, 14459), (158, 14501), (169, 14522), (182, 14567), (186, 14603),

Gene: GeneCoco_10 Start: 8949, Stop: 9383, Start Num: 75

Candidate Starts for GeneCoco_10:

(Start: 75 @8949 has 139 MA's), (97, 8988), (105, 9012), (122, 9093), (144, 9183), (169, 9246),

Gene: Gophee_10 Start: 8943, Stop: 9377, Start Num: 75

Candidate Starts for Gophee_10:

(Start: 75 @8943 has 139 MA's), (97, 8982), (105, 9006), (122, 9087), (144, 9177), (169, 9240),

Gene: Gudmit_38 Start: 27363, Stop: 27896, Start Num: 84

Candidate Starts for Gudmit_38:

(Start: 84 @27363 has 1 MA's), (98, 27390), (173, 27666), (183, 27711),

Gene: Gustavo_49 Start: 42016, Stop: 42534, Start Num: 52

Candidate Starts for Gustavo_49:

(Start: 52 @42016 has 12 MA's), (64, 42046), (130, 42232), (152, 42322), (157, 42334), (198, 42529),

Gene: Gyarad_0010 Start: 8943, Stop: 9377, Start Num: 75

Candidate Starts for Gyarad_0010:

(Start: 75 @8943 has 139 MA's), (97, 8982), (105, 9006), (122, 9087), (144, 9177), (169, 9240),

Gene: HFrancette_45 Start: 30939, Stop: 31430, Start Num: 63

Candidate Starts for HFrancette_45:

(Start: 63 @30939 has 8 MA's), (144, 31191), (149, 31206),

Gene: HSavage_10 Start: 8945, Stop: 9379, Start Num: 75

Candidate Starts for HSavage_10:

(Start: 75 @8945 has 139 MA's), (97, 8984), (105, 9008), (122, 9089), (144, 9179), (169, 9242),

Gene: Haimas_10 Start: 8943, Stop: 9377, Start Num: 75

Candidate Starts for Haimas_10:

(Start: 75 @8943 has 139 MA's), (97, 8982), (105, 9006), (122, 9087), (144, 9177), (169, 9240),

Gene: Hamish_10 Start: 8943, Stop: 9377, Start Num: 75

Candidate Starts for Hamish_10:

(Start: 75 @8943 has 139 MA's), (97, 8982), (105, 9006), (122, 9087), (144, 9177), (169, 9240),

Gene: Hartsy_10 Start: 8940, Stop: 9374, Start Num: 75

Candidate Starts for Hartsy_10:

(Start: 75 @8940 has 139 MA's), (97, 8979), (105, 9003), (122, 9084), (144, 9174), (169, 9237),

Gene: Harvey_10 Start: 8944, Stop: 9378, Start Num: 75

Candidate Starts for Harvey_10:

(Start: 75 @8944 has 139 MA's), (97, 8983), (105, 9007), (122, 9088), (144, 9178), (169, 9241),

Gene: Hertubise_10 Start: 8943, Stop: 9377, Start Num: 75
Candidate Starts for Hertubise_10:
(Start: 75 @8943 has 139 MA's), (97, 8982), (105, 9006), (122, 9087), (144, 9177), (169, 9240),

Gene: Hetaeria_10 Start: 8943, Stop: 9377, Start Num: 75
Candidate Starts for Hetaeria_10:
(Start: 75 @8943 has 139 MA's), (97, 8982), (105, 9006), (122, 9087), (144, 9177), (169, 9240),

Gene: Horchata_10 Start: 8942, Stop: 9376, Start Num: 75
Candidate Starts for Horchata_10:
(Start: 75 @8942 has 139 MA's), (97, 8981), (105, 9005), (122, 9086), (144, 9176), (169, 9239),

Gene: HyRo_132 Start: 82234, Stop: 82650, Start Num: 88
Candidate Starts for HyRo_132:
(15, 81757), (Start: 88 @82234 has 23 MA's), (109, 82291), (121, 82354), (138, 82423), (149, 82468),
(164, 82507),

Gene: Ididsumtinwong_46 Start: 30014, Stop: 30484, Start Num: 73
Candidate Starts for Ididsumtinwong_46:
(Start: 54 @29978 has 2 MA's), (Start: 73 @30014 has 1 MA's), (152, 30272), (158, 30290), (168,
30311),

Gene: Ignacio_44 Start: 30842, Stop: 31333, Start Num: 63
Candidate Starts for Ignacio_44:
(Start: 63 @30842 has 8 MA's), (144, 31094), (149, 31109),

Gene: Inchworm_10 Start: 8940, Stop: 9374, Start Num: 75
Candidate Starts for Inchworm_10:
(Start: 75 @8940 has 139 MA's), (97, 8979), (105, 9003), (122, 9084), (144, 9174), (169, 9237),

Gene: Inverness_10 Start: 8945, Stop: 9379, Start Num: 75
Candidate Starts for Inverness_10:
(Start: 75 @8945 has 139 MA's), (97, 8984), (105, 9008), (122, 9089), (144, 9179), (169, 9242),

Gene: Iridoclysis_10 Start: 8947, Stop: 9381, Start Num: 75
Candidate Starts for Iridoclysis_10:
(Start: 75 @8947 has 139 MA's), (97, 8986), (105, 9010), (122, 9091), (144, 9181), (169, 9244),

Gene: IrishSherpFalk_88 Start: 51234, Stop: 51749, Start Num: 56
Candidate Starts for IrishSherpFalk_88:
(Start: 56 @51234 has 1 MA's), (Start: 57 @51237 has 1 MA's), (Start: 91 @51297 has 1 MA's), (136,
51474), (151, 51534), (180, 51621), (190, 51687), (194, 51720),

Gene: IsaacEli_10 Start: 8940, Stop: 9374, Start Num: 75
Candidate Starts for IsaacEli_10:
(Start: 75 @8940 has 139 MA's), (97, 8979), (105, 9003), (122, 9084), (144, 9174), (169, 9237),

Gene: JKSyngboy_47 Start: 42615, Stop: 43133, Start Num: 52
Candidate Starts for JKSyngboy_47:
(Start: 52 @42615 has 12 MA's), (64, 42645), (130, 42831), (152, 42921), (157, 42933), (198, 43128),

Gene: JacAttac_10 Start: 8940, Stop: 9374, Start Num: 75
Candidate Starts for JacAttac_10:

(Start: 75 @8940 has 139 MA's), (97, 8979), (105, 9003), (122, 9084), (144, 9174), (169, 9237),

Gene: Jada_236 Start: 113382, Stop: 113834, Start Num: 95

Candidate Starts for Jada_236:

(Start: 67 @113334 has 1 MA's), (82, 113355), (Start: 95 @113382 has 2 MA's), (148, 113616),

Gene: JangoPhett_10 Start: 8941, Stop: 9375, Start Num: 75

Candidate Starts for JangoPhett_10:

(Start: 75 @8941 has 139 MA's), (97, 8980), (105, 9004), (122, 9085), (144, 9175), (169, 9238),

Gene: Jessibeth14_140 Start: 83080, Stop: 83496, Start Num: 88

Candidate Starts for Jessibeth14_140:

(15, 82603), (Start: 88 @83080 has 23 MA's), (109, 83137), (121, 83200), (138, 83269), (149, 83314), (164, 83353),

Gene: KBurrousTX_96 Start: 64281, Stop: 64742, Start Num: 89

Candidate Starts for KBurrousTX_96:

(Start: 89 @64281 has 2 MA's), (98, 64299), (123, 64410), (142, 64503), (146, 64521), (151, 64536), (171, 64584),

Gene: KLucky39_10 Start: 8943, Stop: 9377, Start Num: 75

Candidate Starts for KLucky39_10:

(Start: 75 @8943 has 139 MA's), (97, 8982), (105, 9006), (122, 9087), (144, 9177), (169, 9240),

Gene: Kailash_10 Start: 8952, Stop: 9386, Start Num: 75

Candidate Starts for Kailash_10:

(Start: 75 @8952 has 139 MA's), (97, 8991), (105, 9015), (122, 9096), (144, 9186), (169, 9249),

Gene: Kamashten_49 Start: 42108, Stop: 42626, Start Num: 52

Candidate Starts for Kamashten_49:

(Start: 52 @42108 has 12 MA's), (130, 42324), (152, 42414), (157, 42426),

Gene: Katniss_10 Start: 8944, Stop: 9378, Start Num: 75

Candidate Starts for Katniss_10:

(Start: 75 @8944 has 139 MA's), (97, 8983), (105, 9007), (122, 9088), (144, 9178), (169, 9241),

Gene: Keitabear_50 Start: 43627, Stop: 44148, Start Num: 44

Candidate Starts for Keitabear_50:

(41, 43618), (Start: 44 @43627 has 5 MA's), (Start: 52 @43630 has 12 MA's), (130, 43846), (152, 43936), (157, 43948),

Gene: Keitabear_20 Start: 16560, Stop: 17006, Start Num: 76

Candidate Starts for Keitabear_20:

(Start: 61 @16539 has 2 MA's), (Start: 68 @16551 has 2 MA's), (Start: 76 @16560 has 13 MA's), (Start: 93 @16590 has 1 MA's), (99, 16599), (139, 16770), (145, 16803), (158, 16845), (169, 16866), (182, 16911), (186, 16947),

Gene: Keitherie_10 Start: 8957, Stop: 9391, Start Num: 75

Candidate Starts for Keitherie_10:

(Start: 75 @8957 has 139 MA's), (97, 8996), (105, 9020), (107, 9023), (122, 9101), (144, 9191), (169, 9254),

Gene: KentuckyRacer_110 Start: 73819, Stop: 74262, Start Num: 95

Candidate Starts for KentuckyRacer_110:
(Start: 95 @73819 has 2 MA's), (144, 74038), (148, 74053), (159, 74089),

Gene: Kewpiedoll_51 Start: 43059, Stop: 43577, Start Num: 52
Candidate Starts for Kewpiedoll_51:
(41, 43047), (Start: 44 @43056 has 5 MA's), (Start: 52 @43059 has 12 MA's), (130, 43275), (152, 43365), (157, 43377),

Gene: Kikipoo_10 Start: 8940, Stop: 9374, Start Num: 75
Candidate Starts for Kikipoo_10:
(Start: 75 @8940 has 139 MA's), (97, 8979), (105, 9003), (122, 9084), (144, 9174), (169, 9237),

Gene: KingVeVeVe_10 Start: 8944, Stop: 9378, Start Num: 75
Candidate Starts for KingVeVeVe_10:
(Start: 75 @8944 has 139 MA's), (97, 8983), (105, 9007), (122, 9088), (144, 9178), (169, 9241),

Gene: KlimbOn_10 Start: 8943, Stop: 9377, Start Num: 75
Candidate Starts for KlimbOn_10:
(Start: 75 @8943 has 139 MA's), (97, 8982), (105, 9006), (122, 9087), (144, 9177), (169, 9240),

Gene: Kloppinator_10 Start: 8941, Stop: 9375, Start Num: 75
Candidate Starts for Kloppinator_10:
(Start: 75 @8941 has 139 MA's), (97, 8980), (105, 9004), (122, 9085), (144, 9175), (169, 9238),

Gene: Koguma_138 Start: 80718, Stop: 81134, Start Num: 88
Candidate Starts for Koguma_138:
(15, 80241), (Start: 88 @80718 has 23 MA's), (109, 80775), (121, 80838), (138, 80907), (149, 80952), (164, 80991),

Gene: Kwobi_50 Start: 42725, Stop: 43243, Start Num: 52
Candidate Starts for Kwobi_50:
(Start: 52 @42725 has 12 MA's), (64, 42755), (130, 42941), (152, 43031), (157, 43043),

Gene: LRRHood_134 Start: 82526, Stop: 82942, Start Num: 88
Candidate Starts for LRRHood_134:
(15, 82049), (Start: 88 @82526 has 23 MA's), (109, 82583), (121, 82646), (138, 82715), (149, 82760), (164, 82799),

Gene: LasagnaCat_10 Start: 8952, Stop: 9386, Start Num: 75
Candidate Starts for LasagnaCat_10:
(Start: 75 @8952 has 139 MA's), (97, 8991), (105, 9015), (122, 9096), (144, 9186), (169, 9249),

Gene: Lasso_10 Start: 8943, Stop: 9377, Start Num: 75
Candidate Starts for Lasso_10:
(Start: 75 @8943 has 139 MA's), (97, 8982), (105, 9006), (122, 9087), (144, 9177), (169, 9240),

Gene: LeeLot_10 Start: 8943, Stop: 9377, Start Num: 75
Candidate Starts for LeeLot_10:
(Start: 75 @8943 has 139 MA's), (97, 8982), (105, 9006), (122, 9087), (144, 9177), (169, 9240),

Gene: Lego3393_10 Start: 8941, Stop: 9375, Start Num: 75
Candidate Starts for Lego3393_10:
(Start: 75 @8941 has 139 MA's), (97, 8980), (105, 9004), (122, 9085), (144, 9175), (169, 9238),

Gene: Lennon_20 Start: 15643, Stop: 16110, Start Num: 61

Candidate Starts for Lennon_20:

(Start: 61 @15643 has 2 MA's), (Start: 68 @15655 has 2 MA's), (Start: 76 @15664 has 13 MA's),
(Start: 93 @15694 has 1 MA's), (99, 15703), (139, 15874), (145, 15907), (158, 15949), (169, 15970),
(182, 16015), (186, 16051),

Gene: Lennon_50 Start: 43707, Stop: 44228, Start Num: 44

Candidate Starts for Lennon_50:

(41, 43698), (Start: 44 @43707 has 5 MA's), (Start: 52 @43710 has 12 MA's), (130, 43926), (152,
44016), (157, 44028),

Gene: LolaVinca_141 Start: 83494, Stop: 83910, Start Num: 88

Candidate Starts for LolaVinca_141:

(15, 83017), (Start: 88 @83494 has 23 MA's), (109, 83551), (121, 83614), (138, 83683), (149, 83728),
(164, 83767),

Gene: Love_20 Start: 14527, Stop: 14973, Start Num: 76

Candidate Starts for Love_20:

(Start: 61 @14506 has 2 MA's), (Start: 68 @14518 has 2 MA's), (Start: 76 @14527 has 13 MA's),
(Start: 93 @14557 has 1 MA's), (99, 14566), (139, 14737), (145, 14770), (158, 14812), (169, 14833),
(182, 14878), (186, 14914),

Gene: Love_55 Start: 44334, Stop: 44852, Start Num: 52

Candidate Starts for Love_55:

(41, 44322), (Start: 44 @44331 has 5 MA's), (Start: 52 @44334 has 12 MA's), (130, 44550), (152,
44640), (157, 44652),

Gene: Lton_30 Start: 23640, Stop: 24134, Start Num: 68

Candidate Starts for Lton_30:

(Start: 68 @23640 has 2 MA's), (106, 23715), (109, 23721), (117, 23784), (149, 23916), (161, 23958),
(167, 23973),

Gene: Lukilu_131 Start: 83536, Stop: 83952, Start Num: 88

Candidate Starts for Lukilu_131:

(15, 83059), (Start: 88 @83536 has 23 MA's), (109, 83593), (121, 83656), (138, 83725), (149, 83770),
(164, 83809),

Gene: Lulwa_10 Start: 8943, Stop: 9377, Start Num: 75

Candidate Starts for Lulwa_10:

(Start: 75 @8943 has 139 MA's), (97, 8982), (105, 9006), (122, 9087), (144, 9177), (169, 9240),

Gene: Lymara_98 Start: 62394, Stop: 62876, Start Num: 89

Candidate Starts for Lymara_98:

(30, 62202), (46, 62298), (Start: 89 @62394 has 2 MA's), (124, 62526),

Gene: Magic8_10 Start: 8940, Stop: 9374, Start Num: 75

Candidate Starts for Magic8_10:

(Start: 75 @8940 has 139 MA's), (97, 8979), (105, 9003), (122, 9084), (144, 9174), (169, 9237),

Gene: Mangeria_141 Start: 83337, Stop: 83753, Start Num: 88

Candidate Starts for Mangeria_141:

(15, 82860), (Start: 88 @83337 has 23 MA's), (109, 83394), (121, 83457), (138, 83526), (149, 83571), (164, 83610),

Gene: Marteena_62 Start: 42816, Stop: 43277, Start Num: 70

Candidate Starts for Marteena_62:

(31, 42666), (32, 42669), (42, 42744), (43, 42747), (Start: 70 @42816 has 10 MA's), (78, 42822), (110, 42903), (128, 42999), (156, 43116),

Gene: Matalotodo_10 Start: 8944, Stop: 9378, Start Num: 75

Candidate Starts for Matalotodo_10:

(Start: 75 @8944 has 139 MA's), (97, 8983), (105, 9007), (122, 9088), (144, 9178), (169, 9241),

Gene: Matteo_53 Start: 35852, Stop: 36313, Start Num: 70

Candidate Starts for Matteo_53:

(31, 35702), (42, 35780), (43, 35783), (Start: 70 @35852 has 10 MA's), (78, 35858), (110, 35939), (128, 36035), (156, 36152),

Gene: Megatron_10 Start: 8940, Stop: 9374, Start Num: 75

Candidate Starts for Megatron_10:

(Start: 75 @8940 has 139 MA's), (97, 8979), (105, 9003), (122, 9084), (144, 9174), (169, 9237),

Gene: Melc17_10 Start: 8940, Stop: 9374, Start Num: 75

Candidate Starts for Melc17_10:

(Start: 75 @8940 has 139 MA's), (97, 8979), (105, 9003), (122, 9084), (144, 9174), (169, 9237),

Gene: Mesh1_10 Start: 8943, Stop: 9377, Start Num: 75

Candidate Starts for Mesh1_10:

(Start: 75 @8943 has 139 MA's), (97, 8982), (105, 9006), (122, 9087), (144, 9177), (169, 9240),

Gene: MikeLiesIn_142 Start: 83297, Stop: 83713, Start Num: 88

Candidate Starts for MikeLiesIn_142:

(15, 82820), (Start: 88 @83297 has 23 MA's), (109, 83354), (121, 83417), (138, 83486), (149, 83531), (164, 83570),

Gene: Mikota_10 Start: 8941, Stop: 9375, Start Num: 75

Candidate Starts for Mikota_10:

(Start: 75 @8941 has 139 MA's), (97, 8980), (105, 9004), (122, 9085), (144, 9175), (169, 9238),

Gene: MiniBoss_10 Start: 8943, Stop: 9377, Start Num: 75

Candidate Starts for MiniBoss_10:

(Start: 75 @8943 has 139 MA's), (97, 8982), (105, 9006), (122, 9087), (144, 9177), (169, 9240),

Gene: Mojorita_45 Start: 30760, Stop: 31281, Start Num: 71

Candidate Starts for Mojorita_45:

(Start: 71 @30760 has 3 MA's), (158, 31048), (176, 31099), (183, 31132), (184, 31138), (188, 31168),

Gene: MoontowerMania_50 Start: 43336, Stop: 43860, Start Num: 52

Candidate Starts for MoontowerMania_50:

(49, 43324), (51, 43333), (Start: 52 @43336 has 12 MA's), (130, 43558), (152, 43648), (157, 43660),

Gene: Morty_10 Start: 8940, Stop: 9374, Start Num: 75

Candidate Starts for Morty_10:

(Start: 75 @8940 has 139 MA's), (97, 8979), (105, 9003), (122, 9084), (144, 9174), (169, 9237),

Gene: Murdoc_10 Start: 8943, Stop: 9377, Start Num: 75

Candidate Starts for Murdoc_10:

(Start: 75 @8943 has 139 MA's), (97, 8982), (105, 9006), (122, 9087), (144, 9177), (169, 9240),

Gene: Nacho_0010 Start: 8943, Stop: 9377, Start Num: 75

Candidate Starts for Nacho_0010:

(Start: 75 @8943 has 139 MA's), (97, 8982), (105, 9006), (122, 9087), (144, 9177), (169, 9240),

Gene: Nebkiss_18 Start: 16946, Stop: 17431, Start Num: 70

Candidate Starts for Nebkiss_18:

(Start: 70 @16946 has 10 MA's), (77, 16955), (139, 17171), (149, 17210), (152, 17219), (172, 17270), (190, 17369),

Gene: Neobush_64 Start: 42273, Stop: 42734, Start Num: 70

Candidate Starts for Neobush_64:

(47, 42207), (Start: 70 @42273 has 10 MA's), (119, 42420), (127, 42456), (135, 42483), (144, 42531), (156, 42573), (158, 42582), (181, 42642),

Gene: Newman_10 Start: 8943, Stop: 9377, Start Num: 75

Candidate Starts for Newman_10:

(Start: 75 @8943 has 139 MA's), (97, 8982), (105, 9006), (122, 9087), (144, 9177), (169, 9240),

Gene: Nicole21_10 Start: 8941, Stop: 9375, Start Num: 75

Candidate Starts for Nicole21_10:

(Start: 75 @8941 has 139 MA's), (97, 8980), (105, 9004), (122, 9085), (144, 9175), (169, 9238),

Gene: Nordenberg_13 Start: 12847, Stop: 13293, Start Num: 76

Candidate Starts for Nordenberg_13:

(Start: 61 @12826 has 2 MA's), (Start: 68 @12838 has 2 MA's), (Start: 76 @12847 has 13 MA's), (Start: 93 @12877 has 1 MA's), (99, 12886), (139, 13057), (145, 13090), (158, 13132), (169, 13153), (182, 13198), (186, 13234),

Gene: Numberten_10 Start: 8943, Stop: 9377, Start Num: 75

Candidate Starts for Numberten_10:

(Start: 75 @8943 has 139 MA's), (97, 8982), (105, 9006), (122, 9087), (144, 9177), (169, 9240),

Gene: OSmaximus_10 Start: 8941, Stop: 9375, Start Num: 75

Candidate Starts for OSmaximus_10:

(Start: 75 @8941 has 139 MA's), (97, 8980), (105, 9004), (122, 9085), (144, 9175), (169, 9238),

Gene: Olive_10 Start: 8940, Stop: 9374, Start Num: 75

Candidate Starts for Olive_10:

(Start: 75 @8940 has 139 MA's), (97, 8979), (105, 9003), (122, 9084), (144, 9174), (169, 9237),

Gene: OliverWalter_10 Start: 8939, Stop: 9373, Start Num: 75

Candidate Starts for OliverWalter_10:

(Start: 75 @8939 has 139 MA's), (97, 8978), (105, 9002), (122, 9083), (144, 9173), (169, 9236),

Gene: Omniscient_10 Start: 8943, Stop: 9377, Start Num: 75

Candidate Starts for Omniscient_10:

(Start: 75 @8943 has 139 MA's), (97, 8982), (105, 9006), (122, 9087), (144, 9177), (169, 9240),

Gene: Oosterbaan_10 Start: 8944, Stop: 9378, Start Num: 75
Candidate Starts for Oosterbaan_10:
(Start: 75 @8944 has 139 MA's), (97, 8983), (105, 9007), (122, 9088), (144, 9178), (169, 9241),

Gene: Orion_10 Start: 8941, Stop: 9375, Start Num: 75
Candidate Starts for Orion_10:
(Start: 75 @8941 has 139 MA's), (97, 8980), (105, 9004), (122, 9085), (144, 9175), (169, 9238),

Gene: PG1_10 Start: 8941, Stop: 9375, Start Num: 75
Candidate Starts for PG1_10:
(Start: 75 @8941 has 139 MA's), (97, 8980), (105, 9004), (122, 9085), (144, 9175), (169, 9238),

Gene: PapayaSalad_44 Start: 30268, Stop: 30774, Start Num: 54
Candidate Starts for PapayaSalad_44:
(Start: 54 @30268 has 2 MA's), (Start: 73 @30304 has 1 MA's), (152, 30562), (158, 30580), (168, 30601),

Gene: Paries_19 Start: 14215, Stop: 14661, Start Num: 76
Candidate Starts for Paries_19:
(Start: 61 @14194 has 2 MA's), (Start: 68 @14206 has 2 MA's), (Start: 76 @14215 has 13 MA's),
(Start: 93 @14245 has 1 MA's), (99, 14254), (139, 14425), (145, 14458), (158, 14500), (169, 14521),
(182, 14566), (186, 14602),

Gene: Peebs_219 Start: 112985, Stop: 113584, Start Num: 38
Candidate Starts for Peebs_219:
(33, 112949), (Start: 38 @112985 has 1 MA's), (55, 113057), (Start: 57 @113063 has 1 MA's), (59, 113072), (77, 113102), (80, 113108), (83, 113111), (86, 113117), (99, 113144), (118, 113240), (131, 113291), (154, 113384), (177, 113456), (186, 113510), (192, 113543),

Gene: Phamished_10 Start: 8940, Stop: 9374, Start Num: 75
Candidate Starts for Phamished_10:
(Start: 75 @8940 has 139 MA's), (97, 8979), (105, 9003), (122, 9084), (144, 9174), (169, 9237),

Gene: PhatCats2014_10 Start: 8944, Stop: 9378, Start Num: 75
Candidate Starts for PhatCats2014_10:
(Start: 75 @8944 has 139 MA's), (97, 8983), (105, 9007), (122, 9088), (144, 9178), (169, 9241),

Gene: PhatLouie_10 Start: 8943, Stop: 9377, Start Num: 75
Candidate Starts for PhatLouie_10:
(Start: 75 @8943 has 139 MA's), (97, 8982), (105, 9006), (122, 9087), (144, 9177), (169, 9240),

Gene: Pherdinand_10 Start: 8941, Stop: 9375, Start Num: 75
Candidate Starts for Pherdinand_10:
(Start: 75 @8941 has 139 MA's), (97, 8980), (105, 9004), (122, 9085), (144, 9175), (169, 9238),

Gene: Phipps_10 Start: 8943, Stop: 9377, Start Num: 75
Candidate Starts for Phipps_10:
(Start: 75 @8943 has 139 MA's), (97, 8982), (105, 9006), (122, 9087), (144, 9177), (169, 9240),

Gene: Phox_138 Start: 83560, Stop: 83976, Start Num: 88
Candidate Starts for Phox_138:
(15, 83083), (Start: 88 @83560 has 23 MA's), (109, 83617), (121, 83680), (138, 83749), (149, 83794),
(164, 83833),

Gene: PhrodoBaggins_105 Start: 8943, Stop: 9377, Start Num: 75
Candidate Starts for PhrodoBaggins_105:
(Start: 75 @8943 has 139 MA's), (97, 8982), (105, 9006), (122, 9087), (144, 9177), (169, 9240),

Gene: Phunky_10 Start: 8943, Stop: 9377, Start Num: 75
Candidate Starts for Phunky_10:
(Start: 75 @8943 has 139 MA's), (97, 8982), (105, 9006), (122, 9087), (144, 9177), (169, 9240),

Gene: Picard_45 Start: 30958, Stop: 31479, Start Num: 71
Candidate Starts for Picard_45:
(Start: 71 @30958 has 3 MA's), (158, 31246), (184, 31336), (188, 31366), (197, 31432),

Gene: Piccadilly_44 Start: 30160, Stop: 30651, Start Num: 63
Candidate Starts for Piccadilly_44:
(Start: 63 @30160 has 8 MA's), (144, 30412), (149, 30427),

Gene: Pio_145 Start: 85169, Stop: 85585, Start Num: 88
Candidate Starts for Pio_145:
(15, 84692), (Start: 88 @85169 has 23 MA's), (109, 85226), (121, 85289), (138, 85358), (149, 85403),
(164, 85442),

Gene: Pipsqueak_10 Start: 8943, Stop: 9377, Start Num: 75
Candidate Starts for Pipsqueak_10:
(Start: 75 @8943 has 139 MA's), (97, 8982), (105, 9006), (122, 9087), (144, 9177), (169, 9240),

Gene: Plmatters_10 Start: 8943, Stop: 9377, Start Num: 75
Candidate Starts for Plmatters_10:
(Start: 75 @8943 has 139 MA's), (97, 8982), (105, 9006), (122, 9087), (144, 9177), (169, 9240),

Gene: Podrick_10 Start: 8943, Stop: 9377, Start Num: 75
Candidate Starts for Podrick_10:
(Start: 75 @8943 has 139 MA's), (97, 8982), (105, 9006), (122, 9087), (144, 9177), (169, 9240),

Gene: Pollux_66 Start: 44701, Stop: 45162, Start Num: 70
Candidate Starts for Pollux_66:
(31, 44551), (32, 44554), (42, 44629), (43, 44632), (Start: 70 @44701 has 10 MA's), (78, 44707), (110, 44788), (128, 44884), (156, 45001),

Gene: Pops_10 Start: 8943, Stop: 9377, Start Num: 75
Candidate Starts for Pops_10:
(Start: 75 @8943 has 139 MA's), (97, 8982), (105, 9006), (122, 9087), (144, 9177), (169, 9240),

Gene: Prickles_10 Start: 8949, Stop: 9383, Start Num: 75
Candidate Starts for Prickles_10:
(Start: 75 @8949 has 139 MA's), (97, 8988), (105, 9012), (122, 9093), (144, 9183), (169, 9246),

Gene: ProfessorX_10 Start: 8941, Stop: 9375, Start Num: 75
Candidate Starts for ProfessorX_10:
(Start: 75 @8941 has 139 MA's), (97, 8980), (105, 9004), (122, 9085), (144, 9175), (169, 9238),

Gene: Puhltonio_10 Start: 8943, Stop: 9377, Start Num: 75
Candidate Starts for Puhltonio_10:

(Start: 75 @8943 has 139 MA's), (97, 8982), (105, 9006), (122, 9087), (144, 9177), (169, 9240),

Gene: QueenBeane_10 Start: 8940, Stop: 9374, Start Num: 75

Candidate Starts for QueenBeane_10:

(Start: 75 @8940 has 139 MA's), (97, 8979), (105, 9003), (122, 9084), (144, 9174), (169, 9237),

Gene: Quisquilliae_10 Start: 8943, Stop: 9377, Start Num: 75

Candidate Starts for Quisquilliae_10:

(Start: 75 @8943 has 139 MA's), (97, 8982), (105, 9006), (122, 9087), (144, 9177), (169, 9240),

Gene: Rabinovish_140 Start: 83892, Stop: 84308, Start Num: 88

Candidate Starts for Rabinovish_140:

(15, 83415), (Start: 88 @83892 has 23 MA's), (109, 83949), (121, 84012), (138, 84081), (149, 84126), (164, 84165),

Gene: Raleigh_43 Start: 33449, Stop: 33964, Start Num: 69

Candidate Starts for Raleigh_43:

(Start: 69 @33449 has 3 MA's), (Start: 94 @33488 has 1 MA's), (157, 33728), (158, 33734),

Gene: Riggan_10 Start: 8947, Stop: 9381, Start Num: 75

Candidate Starts for Riggan_10:

(Start: 75 @8947 has 139 MA's), (97, 8986), (105, 9010), (122, 9091), (144, 9181), (169, 9244),

Gene: Rofo_18 Start: 14497, Stop: 14928, Start Num: 93

Candidate Starts for Rofo_18:

(Start: 61 @14446 has 2 MA's), (Start: 68 @14458 has 2 MA's), (Start: 76 @14467 has 13 MA's), (Start: 93 @14497 has 1 MA's), (99, 14506), (139, 14677), (145, 14710), (158, 14752), (169, 14773), (182, 14818), (186, 14854),

Gene: Roliet_10 Start: 8943, Stop: 9377, Start Num: 75

Candidate Starts for Roliet_10:

(Start: 75 @8943 has 139 MA's), (97, 8982), (105, 9006), (122, 9087), (144, 9177), (169, 9240),

Gene: Roscoe_11 Start: 9178, Stop: 9612, Start Num: 75

Candidate Starts for Roscoe_11:

(Start: 75 @9178 has 139 MA's), (97, 9217), (105, 9241), (122, 9322), (144, 9412), (169, 9475),

Gene: SDcharge11_10 Start: 8936, Stop: 9370, Start Num: 75

Candidate Starts for SDcharge11_10:

(Start: 75 @8936 has 139 MA's), (97, 8975), (105, 8999), (122, 9080), (144, 9170), (169, 9233),

Gene: SV1_42 Start: 29657, Stop: 30169, Start Num: 72

Candidate Starts for SV1_42:

(Start: 72 @29657 has 1 MA's), (140, 29882), (174, 29981), (183, 30020), (184, 30026), (188, 30056),

Gene: SadLad_28 Start: 14537, Stop: 14064, Start Num: 91

Candidate Starts for SadLad_28:

(1, 15395), (2, 15374), (3, 15371), (4, 15356), (5, 15353), (6, 15335), (7, 15299), (8, 15278), (9, 15239), (10, 15185), (11, 15182), (12, 15173), (13, 15155), (14, 15065), (16, 15011), (17, 14957), (18, 14912), (19, 14870), (20, 14864), (21, 14822), (22, 14816), (23, 14798), (24, 14792), (26, 14780), (27, 14759), (28, 14756), (35, 14705), (36, 14693), (37, 14681), (40, 14660), (50, 14621), (Start: 76 @14564 has 13 MA's), (Start: 91 @14537 has 1 MA's), (126, 14405), (129, 14387), (142, 14321), (151, 14282), (160, 14258), (163, 14249), (185, 14168),

Gene: Samaymay_10 Start: 8940, Stop: 9374, Start Num: 75
Candidate Starts for Samaymay_10:
(Start: 75 @8940 has 139 MA's), (97, 8979), (105, 9003), (122, 9084), (144, 9174), (169, 9237),

Gene: Saronaya_49 Start: 42016, Stop: 42534, Start Num: 52
Candidate Starts for Saronaya_49:
(Start: 52 @42016 has 12 MA's), (64, 42046), (130, 42232), (152, 42322), (157, 42334), (198, 42529),

Gene: Scoot17C_10 Start: 8944, Stop: 9378, Start Num: 75
Candidate Starts for Scoot17C_10:
(Start: 75 @8944 has 139 MA's), (97, 8983), (105, 9007), (122, 9088), (144, 9178), (169, 9241),

Gene: Sedona_50 Start: 43310, Stop: 43828, Start Num: 52
Candidate Starts for Sedona_50:
(Start: 52 @43310 has 12 MA's), (64, 43340), (130, 43526), (152, 43616), (157, 43628),

Gene: Serendipity_10 Start: 8943, Stop: 9377, Start Num: 75
Candidate Starts for Serendipity_10:
(Start: 75 @8943 has 139 MA's), (97, 8982), (105, 9006), (122, 9087), (144, 9177), (169, 9240),

Gene: Serpentine_0010 Start: 8943, Stop: 9377, Start Num: 75
Candidate Starts for Serpentine_0010:
(Start: 75 @8943 has 139 MA's), (97, 8982), (105, 9006), (122, 9087), (144, 9177), (169, 9240),

Gene: Shaqnato_134 Start: 81274, Stop: 81690, Start Num: 88
Candidate Starts for Shaqnato_134:
(15, 80797), (Start: 88 @81274 has 23 MA's), (109, 81331), (121, 81394), (138, 81463), (149, 81508),
(164, 81547),

Gene: Sheila_10 Start: 8941, Stop: 9375, Start Num: 75
Candidate Starts for Sheila_10:
(Start: 75 @8941 has 139 MA's), (97, 8980), (105, 9004), (122, 9085), (144, 9175), (169, 9238),

Gene: Shelob_143 Start: 84076, Stop: 84492, Start Num: 88
Candidate Starts for Shelob_143:
(15, 83599), (Start: 88 @84076 has 23 MA's), (109, 84133), (121, 84196), (138, 84265), (149, 84310),
(164, 84349),

Gene: ShiVal_10 Start: 8943, Stop: 9377, Start Num: 75
Candidate Starts for ShiVal_10:
(Start: 75 @8943 has 139 MA's), (97, 8982), (105, 9006), (122, 9087), (144, 9177), (169, 9240),

Gene: Shifa_130 Start: 81500, Stop: 81916, Start Num: 88
Candidate Starts for Shifa_130:
(15, 81023), (Start: 88 @81500 has 23 MA's), (109, 81557), (121, 81620), (138, 81689), (149, 81734),
(164, 81773),

Gene: Shivanishola_50 Start: 42031, Stop: 42549, Start Num: 52
Candidate Starts for Shivanishola_50:
(41, 42019), (Start: 44 @42028 has 5 MA's), (Start: 52 @42031 has 12 MA's), (130, 42247), (152,
42337), (157, 42349),

Gene: Sigman_10 Start: 8940, Stop: 9374, Start Num: 75

Candidate Starts for Sigman_10:

(Start: 75 @8940 has 139 MA's), (97, 8979), (105, 9003), (122, 9084), (144, 9174), (169, 9237),

Gene: Sitar_50 Start: 43707, Stop: 44228, Start Num: 44

Candidate Starts for Sitar_50:

(41, 43698), (Start: 44 @43707 has 5 MA's), (Start: 52 @43710 has 12 MA's), (130, 43926), (152, 44016), (157, 44028),

Gene: Sitar_20 Start: 15655, Stop: 16110, Start Num: 68

Candidate Starts for Sitar_20:

(Start: 61 @15643 has 2 MA's), (Start: 68 @15655 has 2 MA's), (Start: 76 @15664 has 13 MA's), (Start: 93 @15694 has 1 MA's), (99, 15703), (139, 15874), (145, 15907), (158, 15949), (169, 15970), (182, 16015), (186, 16051),

Gene: Skippy_10 Start: 8943, Stop: 9377, Start Num: 75

Candidate Starts for Skippy_10:

(Start: 75 @8943 has 139 MA's), (97, 8982), (105, 9006), (122, 9087), (144, 9177), (169, 9240),

Gene: Slatt_10 Start: 8945, Stop: 9379, Start Num: 75

Candidate Starts for Slatt_10:

(Start: 75 @8945 has 139 MA's), (97, 8984), (105, 9008), (122, 9089), (144, 9179), (169, 9242),

Gene: SoJo_43 Start: 31466, Stop: 31978, Start Num: 71

Candidate Starts for SoJo_43:

(Start: 71 @31466 has 3 MA's), (101, 31523), (176, 31799), (188, 31868),

Gene: Soto_10 Start: 8940, Stop: 9374, Start Num: 75

Candidate Starts for Soto_10:

(Start: 75 @8940 has 139 MA's), (97, 8979), (105, 9003), (122, 9084), (144, 9174), (169, 9237),

Gene: Spartan300_10 Start: 8940, Stop: 9374, Start Num: 75

Candidate Starts for Spartan300_10:

(Start: 75 @8940 has 139 MA's), (97, 8979), (105, 9003), (122, 9084), (144, 9174), (169, 9237),

Gene: Suffolk_10 Start: 8942, Stop: 9376, Start Num: 75

Candidate Starts for Suffolk_10:

(Start: 75 @8942 has 139 MA's), (97, 8981), (105, 9005), (122, 9086), (144, 9176), (169, 9239),

Gene: Superphikiman_163 Start: 84350, Stop: 84877, Start Num: 58

Candidate Starts for Superphikiman_163:

(Start: 48 @84308 has 2 MA's), (Start: 58 @84350 has 1 MA's), (65, 84365), (137, 84587), (147, 84644), (153, 84665),

Gene: Surely_10 Start: 8943, Stop: 9377, Start Num: 75

Candidate Starts for Surely_10:

(Start: 75 @8943 has 139 MA's), (97, 8982), (105, 9006), (122, 9087), (144, 9177), (169, 9240),

Gene: Swish_10 Start: 8944, Stop: 9378, Start Num: 75

Candidate Starts for Swish_10:

(Start: 75 @8944 has 139 MA's), (97, 8983), (105, 9007), (122, 9088), (144, 9178), (169, 9241),

Gene: Tangent_16 Start: 13468, Stop: 13914, Start Num: 76

Candidate Starts for Tangent_16:

(Start: 61 @13447 has 2 MA's), (Start: 68 @13459 has 2 MA's), (Start: 76 @13468 has 13 MA's),
(Start: 93 @13498 has 1 MA's), (99, 13507), (139, 13678), (145, 13711), (158, 13753), (169, 13774),
(182, 13819), (186, 13855),

Gene: Teardrop_140 Start: 81782, Stop: 82198, Start Num: 88

Candidate Starts for Teardrop_140:

(15, 81305), (Start: 88 @81782 has 23 MA's), (109, 81839), (121, 81902), (138, 81971), (149, 82016),
(164, 82055),

Gene: Thing3_49 Start: 42108, Stop: 42626, Start Num: 52

Candidate Starts for Thing3_49:

(Start: 52 @42108 has 12 MA's), (130, 42324), (152, 42414), (157, 42426),

Gene: Thora_10 Start: 8940, Stop: 9374, Start Num: 75

Candidate Starts for Thora_10:

(Start: 75 @8940 has 139 MA's), (97, 8979), (105, 9003), (122, 9084), (144, 9174), (169, 9237),

Gene: ThreeOh3D2_10 Start: 8941, Stop: 9375, Start Num: 75

Candidate Starts for ThreeOh3D2_10:

(Start: 75 @8941 has 139 MA's), (97, 8980), (105, 9004), (122, 9085), (144, 9175), (169, 9238),

Gene: ToastyFinz_42 Start: 32290, Stop: 32811, Start Num: 69

Candidate Starts for ToastyFinz_42:

(29, 32113), (47, 32227), (Start: 69 @32290 has 3 MA's), (112, 32383), (158, 32578), (176, 32629),
(184, 32668), (188, 32698),

Gene: TomBombadil_10 Start: 8943, Stop: 9377, Start Num: 75

Candidate Starts for TomBombadil_10:

(Start: 75 @8943 has 139 MA's), (97, 8982), (105, 9006), (122, 9087), (144, 9177), (169, 9240),

Gene: Tomlarah_10 Start: 8943, Stop: 9377, Start Num: 75

Candidate Starts for Tomlarah_10:

(Start: 75 @8943 has 139 MA's), (97, 8982), (105, 9006), (122, 9087), (144, 9177), (169, 9240),

Gene: Tooj_10 Start: 8941, Stop: 9375, Start Num: 75

Candidate Starts for Tooj_10:

(Start: 75 @8941 has 139 MA's), (97, 8980), (105, 9004), (122, 9085), (144, 9175), (169, 9238),

Gene: Trypo_10 Start: 8940, Stop: 9374, Start Num: 75

Candidate Starts for Trypo_10:

(Start: 75 @8940 has 139 MA's), (97, 8979), (105, 9003), (122, 9084), (144, 9174), (169, 9237),

Gene: UAch1_10 Start: 8943, Stop: 9377, Start Num: 75

Candidate Starts for UAch1_10:

(Start: 75 @8943 has 139 MA's), (97, 8982), (105, 9006), (122, 9087), (144, 9177), (169, 9240),

Gene: Usavi_10 Start: 8940, Stop: 9374, Start Num: 75

Candidate Starts for Usavi_10:

(Start: 75 @8940 has 139 MA's), (97, 8979), (105, 9003), (122, 9084), (144, 9174), (169, 9237),

Gene: Valjean_10 Start: 8943, Stop: 9377, Start Num: 75

Candidate Starts for Valjean_10:

(Start: 75 @8943 has 139 MA's), (97, 8982), (105, 9006), (122, 9087), (144, 9177), (169, 9240),

Gene: Virapocalypse_10 Start: 8941, Stop: 9375, Start Num: 75

Candidate Starts for Virapocalypse_10:

(Start: 75 @8941 has 139 MA's), (97, 8980), (105, 9004), (122, 9085), (144, 9175), (169, 9238),

Gene: Vista_10 Start: 8943, Stop: 9377, Start Num: 75

Candidate Starts for Vista_10:

(Start: 75 @8943 has 139 MA's), (97, 8982), (105, 9006), (122, 9087), (144, 9177), (169, 9240),

Gene: Vivaldi_10 Start: 8941, Stop: 9375, Start Num: 75

Candidate Starts for Vivaldi_10:

(Start: 75 @8941 has 139 MA's), (97, 8980), (105, 9004), (122, 9085), (144, 9175), (169, 9238),

Gene: Vivi2_54 Start: 43935, Stop: 44456, Start Num: 44

Candidate Starts for Vivi2_54:

(41, 43926), (Start: 44 @43935 has 5 MA's), (Start: 52 @43938 has 12 MA's), (130, 44154), (152, 44244), (157, 44256),

Gene: Vivi2_18 Start: 14618, Stop: 15085, Start Num: 61

Candidate Starts for Vivi2_18:

(Start: 61 @14618 has 2 MA's), (Start: 68 @14630 has 2 MA's), (Start: 76 @14639 has 13 MA's), (Start: 93 @14669 has 1 MA's), (99, 14678), (139, 14849), (145, 14882), (158, 14924), (169, 14945), (182, 14990), (186, 15026),

Gene: Vondra_43 Start: 30012, Stop: 30503, Start Num: 63

Candidate Starts for Vondra_43:

(Start: 63 @30012 has 8 MA's), (144, 30264), (149, 30279),

Gene: Waterdiva_10 Start: 8944, Stop: 9378, Start Num: 75

Candidate Starts for Waterdiva_10:

(Start: 75 @8944 has 139 MA's), (97, 8983), (105, 9007), (122, 9088), (144, 9178), (169, 9241),

Gene: Weher20_10 Start: 8940, Stop: 9374, Start Num: 75

Candidate Starts for Weher20_10:

(Start: 75 @8940 has 139 MA's), (97, 8979), (105, 9003), (122, 9084), (144, 9174), (169, 9237),

Gene: WhereRU_161 Start: 91595, Stop: 92011, Start Num: 94

Candidate Starts for WhereRU_161:

(92, 91589), (Start: 94 @91595 has 1 MA's), (104, 91625), (119, 91694), (139, 91781), (158, 91847),

Gene: WillSterrel_87 Start: 51270, Stop: 51782, Start Num: 57

Candidate Starts for WillSterrel_87:

(Start: 56 @51267 has 1 MA's), (Start: 57 @51270 has 1 MA's), (Start: 91 @51330 has 1 MA's), (136, 51507), (151, 51567), (180, 51654), (190, 51720), (194, 51753),

Gene: YorkOnyx_19 Start: 14161, Stop: 14622, Start Num: 76

Candidate Starts for YorkOnyx_19:

(Start: 61 @14140 has 2 MA's), (Start: 68 @14152 has 2 MA's), (Start: 76 @14161 has 13 MA's), (Start: 93 @14191 has 1 MA's), (111, 14242), (139, 14371), (158, 14446), (169, 14467), (182, 14512),

Gene: YorkOnyx_50 Start: 42214, Stop: 42732, Start Num: 52

Candidate Starts for YorkOnyx_50:

(Start: 52 @42214 has 12 MA's), (64, 42244), (130, 42430), (152, 42520), (157, 42532),

Gene: Yoshand_10 Start: 8941, Stop: 9375, Start Num: 75

Candidate Starts for Yoshand_10:

(Start: 75 @8941 has 139 MA's), (97, 8980), (105, 9004), (122, 9085), (144, 9175), (169, 9238),

Gene: YouGoGlencoco_10 Start: 8940, Stop: 9374, Start Num: 75

Candidate Starts for YouGoGlencoco_10:

(Start: 75 @8940 has 139 MA's), (97, 8979), (105, 9003), (122, 9084), (144, 9174), (169, 9237),

Gene: Zaider_11 Start: 9173, Stop: 9607, Start Num: 75

Candidate Starts for Zaider_11:

(Start: 75 @9173 has 139 MA's), (97, 9212), (105, 9236), (122, 9317), (144, 9407), (169, 9470),

Gene: Zelda_10 Start: 8943, Stop: 9377, Start Num: 75

Candidate Starts for Zelda_10:

(Start: 75 @8943 has 139 MA's), (97, 8982), (105, 9006), (122, 9087), (144, 9177), (169, 9240),

Gene: Zonia_10 Start: 8957, Stop: 9391, Start Num: 75

Candidate Starts for Zonia_10:

(Start: 75 @8957 has 139 MA's), (97, 8996), (105, 9020), (122, 9101), (144, 9191), (169, 9254),