

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 294441 Report

This analysis was run 04/18/26 on database version 643.

Pham number 294441 has 200 members, 31 are drafts.

Phages represented in each track:

- Track 1 : Pharaoh_43
- Track 2 : Tiger_44, Bluefalcon_44, Midas2_45, PetterN_50, Jovo_45, SydNat_48, Aragog_44, UnionJack_47, Conspiracy_45, MarysWell_45, AgentM_44, Cuco_45, PickleBack_45, Ghoulboy_48, Lev2_45, ElTiger69_48, Zolita_47, ForGetIt_45
- Track 3 : Naca_47
- Track 4 : Jabiru_47, Scorpia_50, Chadwick_49
- Track 5 : Dublin_45, Theia_44
- Track 6 : Coog_45
- Track 7 : Airmid_47
- Track 8 : Benedict_49
- Track 9 : Jaylociraptor_30, Hoshi_30, TaidaOne_30, TonyStarch_30, Maya_30, Esketit_30, Namu_30, CherryBlossom_30, FidgetOrca_30, Spectropatronm_30, IceWarrior_30, TieDye_29, Rima_30, Indigenous_30, OlympicHelado_30, Meibysrarus_30
- Track 10 : Bing_31
- Track 11 : Wigberry_30
- Track 12 : BRock_64
- Track 13 : Garnacho_65
- Track 14 : Alone3_74, Fudan_74, LuckySocke_72
- Track 15 : GiJojo_63
- Track 16 : Park1214_78
- Track 17 : Talos_73
- Track 18 : Beleetus_70
- Track 19 : Beted_23, Lenoshki_23, Oogie_23
- Track 20 : Mikronejon_23
- Track 21 : EmoNemo_23, Aloki_23, Hanem_24, Argena_23, Twin_23, Farrylious_22, Gray_24, Kabocha_25, Toneprano_23, Pakusa_23, Amoonguss_23, MintFritos_23
- Track 22 : Chidiebere_24
- Track 23 : Schomber_23
- Track 24 : ChisanaKitsune_20
- Track 25 : Kudrefre_102
- Track 26 : Sephiroth_99
- Track 27 : Syleon_102
- Track 28 : Octobien14_100
- Track 29 : Greep_106, Bruin_99, Lilpickle_101, Nimrod_102, Petra64142_106, Paperbeatsrock_101, DrDrey_102, ShamWow_102, Emmina_102, MPhalcon_103,

SirDuracell_102, Pharsalus_99, Dusk_99, StormChicken_103, Miniwave_97, BilboSwaggins_100, Stank_104, Misfit_103, Phaja_100, PhatBacter_105, Bask21_102, Adnama_106, Elite2014_101, Manda_103, Marshmallow_99, Buck_103, ChosenOne_102, Harella_102, Command613_104, Kostya_102, Phaux_104, Mindy_101, Tarkin_101, Tomaszewski_97, Mosby_98, CrystalP_101, Wiggin_104, NelitzaMV_99, Barbarian_101, GoldenSpark_106, xkcd_105, Cookies_99, DoctorDiddles_101, Gator_100, Easy2Say_102, Cactus_106, Hoonter_105, Gemini_107, YassJohnny_99, Quallification_103, Inca_99, Nala_104, FireRed_105, ABCat_99, Henry_99, Contagion_98, TeamEdward_102, Sotrice96_103, Argent26_106, Goldilocks_105, TeardropMSU_98, Sassay_97, SophKB_100, Icee_103, Asriel_100, Pat3_99, Youngblood_105, TBrady12_105, Rimmer_100, StellaBean_101, Kanye_99, HufflyPuff_104, BadStone_99, Policronamos_104, Holt_107, ShereKhan_100, Tuco_103, Goku_101, BigBubba_102, GooberAzure_105, Myrale_102, Bogg_102, Daikon_102, Eureka_101, Traaww1_98, Willez_97, Terminus_105, IHOP_100, Toto_100, Flypotenuse_98, Kimchi_106, Rakim_103, Balomoji_102

- Track 30 : Murica_105, MISSy_103
- Track 31 : Xandras_101, NonchalantPear_100, StolenFromERC_104, Gage_104, Ptowny_98
- Track 32 : ChotaBhai_102
- Track 33 : Amao_102
- Track 34 : Theresita_48
- Track 35 : Quhwah_29
- Track 36 : NoodlelyBoi_26
- Track 37 : PSonyx_28
- Track 38 : MicyPS_26
- Track 39 : Taotie_24
- Track 40 : FloraSnap32_183, FrostedClock_189, Phrampa_178, Mimi_186, GoldenEssence_174, Patbob_185
- Track 41 : Panchaali_179
- Track 42 : Bloom_190, Racecar_187, Talia1610_187
- Track 43 : Stewart25555_179
- Track 44 : Marshawn_5
- Track 45 : Laure_187
- Track 46 : BigAnti_27

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

The start number called the most often in the published annotations is 24, it was called in 93 of the 169 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- ABCat_99, Adnama_106, Argent26_106, Asriel_100, BadStone_99, Balomoji_102, Barbarian_101, Bask21_102, BigBubba_102, BilboSwaggins_100, Bogg_102, Bruin_99, Buck_103, Cactus_106, ChosenOne_102, ChotaBhai_102, Command613_104, Contagion_98, Cookies_99, CrystalP_101, Daikon_102, DoctorDiddles_101, DrDrey_102, Dusk_99, Easy2Say_102, Elite2014_101, Emmina_102, Eureka_101, FireRed_105, Flypotenuse_98, Gage_104, Gator_100, Gemini_107, Goku_101, GoldenSpark_106, Goldilocks_105, GooberAzure_105, Greep_106, Harella_102, Henry_99, Holt_107, Hoonter_105, HufflyPuff_104,

IHOP_100, Icee_103, Inca_99, Kanye_99, Kimchi_106, Kostya_102, Lilpickle_101, MISSy_103, MPhalcon_103, Manda_103, Marshmallow_99, Mindy_101, Miniwave_97, Misfit_103, Mosby_98, Murica_105, Myrale_102, Nala_104, NelitzaMV_99, Nimrod_102, NonchalantPear_100, Paperbeatsrock_101, Pat3_99, Petra64142_106, Phaja_100, Pharsalus_99, PhatBacter_105, Phaux_104, Policronamos_104, Ptowny_98, Quallification_103, Rakim_103, Rimmer_100, Sassay_97, ShamWow_102, ShereKhan_100, SirDuracell_102, SophKB_100, Sotrice96_103, Stank_104, StellaBean_101, StolenFromERC_104, StormChicken_103, TBrady12_105, Tarkin_101, TeamEdward_102, TeardropMSU_98, Terminus_105, Tomaszewski_97, Toto_100, Traaww1_98, Tuco_103, Wiggin_104, Willez_97, Xandras_101, YassJohnny_99, Youngblood_105, xkcd_105,

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

- Amao_102,

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

- AgentM_44, Airmid_47, Aloki_23, Alone3_74, Amoonguss_23, Aragog_44, Argena_23, BRock_64, Beleetus_70, Benedict_49, Beted_23, BigAnti_27, Bing_31, Bloom_190, Bluefalcon_44, Chadwick_49, CherryBlossom_30, Chidiebere_24, ChisanaKitsune_20, Conspiracy_45, Coog_45, Cuco_45, Dublin_45, ElTiger69_48, EmoNemo_23, Esketit_30, Farrylious_22, FidgetOrca_30, FloraSnap32_183, ForGetIt_45, FrostedClock_189, Fudan_74, Garnacho_65, Ghouboy_48, GiJojo_63, GoldenEssence_174, Gray_24, Hanem_24, Hoshi_30, IceWarrior_30, Indigenous_30, Jabiru_47, Jaylociraptor_30, Jovo_45, Kabocha_25, Kudrefre_102, Laure_187, Lenoshki_23, Lev2_45, LuckySocke_72, Marshawn_5, MarysWell_45, Maya_30, Meibysrarus_30, MicyPS_26, Midas2_45, Mikronejon_23, Mimi_186, MintFritos_23, Naca_47, Namu_30, NoodlelyBoi_26, Octobien14_100, OlympicHelado_30, Oogie_23, PSonyx_28, Pakusa_23, Panchaali_179, Park1214_78, Patbob_185, PetterN_50, Pharaoh_43, Phrampa_178, PickleBack_45, Quhwah_29, Racecar_187, Rima_30, Schomber_23, Scorpia_50, Sephiroth_99, Spectropatronm_30, Stewart25555_179, SydNat_48, Syleon_102, TaidaOne_30, Talia1610_187, Talos_73, Taotie_24, Theia_44, Theresita_48, TieDye_29, Tiger_44, Toneprano_23, TonyStarch_30, Twin_23, UnionJack_47, Wigberry_30, Zolita_47,

Summary by start number:

Start 11:

- Found in 24 of 200 (12.0%) of genes in pham
- Manual Annotations of this start: 3 of 169
- Called 12.5% of time when present
- Phage (with cluster) where this start called: Airmid_47 (A5), Coog_45 (A5), Naca_47 (A5),

Start 14:

- Found in 1 of 200 (0.5%) of genes in pham
- Manual Annotations of this start: 1 of 169
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Marshawn_5 (K6),

Start 15:

- Found in 2 of 200 (1.0%) of genes in pham
- Manual Annotations of this start: 1 of 169

- Called 50.0% of time when present
- Phage (with cluster) where this start called: Theresita_48 (EA7),

Start 16:

- Found in 97 of 200 (48.5%) of genes in pham
- Manual Annotations of this start: 1 of 169
- Called 1.0% of time when present
- Phage (with cluster) where this start called: Amao_102 (E),

Start 17:

- Found in 10 of 200 (5.0%) of genes in pham
- Manual Annotations of this start: 6 of 169
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Bloom_190 (FC), FloraSnap32_183 (FC), FrostedClock_189 (FC), GoldenEssence_174 (FC), Laure_187 (UNK), Mimi_186 (FC), Patbob_185 (FC), Phrampa_178 (FC), Racecar_187 (FC), Talia1610_187 (FC),

Start 18:

- Found in 24 of 200 (12.0%) of genes in pham
- Manual Annotations of this start: 22 of 169
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BigAnti_27 (singleton), Bing_31 (BI5), CherryBlossom_30 (BI1), Esketit_30 (BI1), FidgetOrca_30 (BI1), Hoshi_30 (BI1), IceWarrior_30 (BI1), Indigenous_30 (BI1), Jaylociraptor_30 (BI1), Maya_30 (BI1), Meibysrarus_30 (BI1), MicyPS_26 (EQ), Namu_30 (BI1), NoodlelyBoi_26 (EC), OlympicHelado_30 (BI1), PSonyx_28 (EQ), Quhwah_29 (EC), Rima_30 (BI1), Spectropatronm_30 (BI1), TaidaOne_30 (BI1), Taotie_24 (EQ), TieDye_29 (BI1), TonyStarch_30 (BI1), Wigberry_30 (BI5),

Start 19:

- Found in 53 of 200 (26.5%) of genes in pham
- Manual Annotations of this start: 29 of 169
- Called 62.3% of time when present
- Phage (with cluster) where this start called: AgentM_44 (A5), Alone3_74 (BS), Aragog_44 (A5), BRock_64 (BS), Beleetus_70 (BS), Benedict_49 (A5), Bluefalcon_44 (A5), Chadwick_49 (A5), Chidiebere_24 (DQ), Conspiracy_45 (A5), Cuco_45 (A5), Dublin_45 (A5), ElTiger69_48 (A5), ForGetIt_45 (A5), Fudan_74 (BS), Garnacho_65 (BS), Ghoulboy_48 (A5), Jabiru_47 (A5), Jovo_45 (A5), Lev2_45 (A5), LuckySocke_72 (BS), MarysWell_45 (A5), Midas2_45 (A5), Mikronejon_23 (DQ), Park1214_78 (BS), PetterN_50 (A5), PickleBack_45 (A5), Scorpia_50 (A5), SydNat_48 (A5), Theia_44 (A5), Tiger_44 (A5), UnionJack_47 (A5), Zolita_47 (A5),

Start 20:

- Found in 1 of 200 (0.5%) of genes in pham
- Manual Annotations of this start: 1 of 169
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Talos_73 (BS),

Start 21:

- Found in 27 of 200 (13.5%) of genes in pham
- Manual Annotations of this start: 11 of 169
- Called 85.2% of time when present

- Phage (with cluster) where this start called: Alok_i_23 (DQ), Amoonguss_23 (DQ), Argena_23 (DQ), Beted_23 (DQ), ChisanaKitsune_20 (DQ), EmoNemo_23 (DQ), Farrylious_22 (DQ), GiJojo_63 (BS), Gray_24 (DQ), Hanem_24 (DQ), Kabocha_25 (DQ), Kudrefre_102 (DU1), Lenoshki_23 (DQ), MintFritos_23 (DQ), Octobien14_100 (DU1), Oogie_23 (DQ), Pakusa_23 (DQ), Pharaoh_43 (A12), Schomber_23 (DQ), Sephiroth_99 (DU1), Syleon_102 (DU1), Toneprano_23 (DQ), Twin_23 (DQ),

Start 22:

- Found in 1 of 200 (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: Stewart25555_179 (FC),

Start 23:

- Found in 2 of 200 (1.0%) of genes in pham
- Manual Annotations of this start: 1 of 169
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Panchaali_179 (FC),

Start 24:

- Found in 102 of 200 (51.0%) of genes in pham
- Manual Annotations of this start: 93 of 169
- Called 99.0% of time when present
- Phage (with cluster) where this start called: ABCat_99 (E), Adnama_106 (E), Argent26_106 (E), Asriel_100 (E), BadStone_99 (E), Balomoji_102 (E), Barbarian_101 (E), Bask21_102 (E), BigBubba_102 (E), BilboSwaggins_100 (E), Bogg_102 (E), Bruin_99 (E), Buck_103 (E), Cactus_106 (E), ChosenOne_102 (E), ChotaBhai_102 (E), Command613_104 (E), Contagion_98 (E), Cookies_99 (E), CrystalP_101 (E), Daikon_102 (E), DoctorDiddles_101 (E), DrDrey_102 (E), Dusk_99 (E), Easy2Say_102 (E), Elite2014_101 (E), Emmina_102 (E), Eureka_101 (E), FireRed_105 (E), Flypotenuse_98 (E), Gage_104 (E), Gator_100 (E), Gemini_107 (E), Goku_101 (E), GoldenSpark_106 (E), Goldilocks_105 (E), GooberAzure_105 (E), Greep_106 (E), Harella_102 (E), Henry_99 (E), Holt_107 (E), Hoonter_105 (E), HuffyPuff_104 (E), IHOP_100 (E), Icee_103 (E), Inca_99 (E), Kanye_99 (E), Kimchi_106 (E), Kostya_102 (E), Lilpickle_101 (E), MISSy_103 (E), MPhalcon_103 (E), Manda_103 (E), Marshmallow_99 (E), Mindy_101 (E), Miniwave_97 (E), Misfit_103 (E), Mosby_98 (E), Murica_105 (E), Myrale_102 (E), Nala_104 (E), NelitzaMV_99 (E), Nimrod_102 (E), NonchalantPear_100 (E), Paperbeatsrock_101 (E), Pat3_99 (E), Petra64142_106 (E), Phaja_100 (E), Pharsalus_99 (E), PhatBacter_105 (E), Phaux_104 (E), Policronamos_104 (E), Ptowny_98 (E), Quallification_103 (E), Rakim_103 (E), Rimmer_100 (E), Sassay_97 (E), ShamWow_102 (E), ShereKhan_100 (E), SirDuracell_102 (E), SophKB_100 (E), Sotrice96_103 (E), Stank_104 (E), StellaBean_101 (E), StolenFromERC_104 (E), StormChicken_103 (E), TBrady12_105 (E), Tarkin_101 (E), TeamEdward_102 (E), TeardropMSU_98 (E), Terminus_105 (E), Tomaszewski_97 (E), Toto_100 (E), Traaww1_98 (E), Tuco_103 (E), Wiggins_104 (E), Willez_97 (E), Xandras_101 (E), YassJohnny_99 (E), Youngblood_105 (E), xkcd_105 (E),

Summary by clusters:

There are 15 clusters represented in this pham: singleton, BI5, E, A12, UNK, EC, FC, A5, K6, BS, DU1, DQ, EQ, EA7, BI1,

Info for manual annotations of cluster A12:

- Start number 21 was manually annotated 1 time for cluster A12.

Info for manual annotations of cluster A5:

- Start number 11 was manually annotated 3 times for cluster A5.
- Start number 19 was manually annotated 24 times for cluster A5.

Info for manual annotations of cluster B11:

- Start number 18 was manually annotated 16 times for cluster B11.

Info for manual annotations of cluster B15:

- Start number 18 was manually annotated 2 times for cluster B15.

Info for manual annotations of cluster BS:

- Start number 19 was manually annotated 4 times for cluster BS.
- Start number 20 was manually annotated 1 time for cluster BS.
- Start number 21 was manually annotated 1 time for cluster BS.

Info for manual annotations of cluster DQ:

- Start number 19 was manually annotated 1 time for cluster DQ.
- Start number 21 was manually annotated 5 times for cluster DQ.

Info for manual annotations of cluster DU1:

- Start number 21 was manually annotated 4 times for cluster DU1.

Info for manual annotations of cluster E:

- Start number 16 was manually annotated 1 time for cluster E.
- Start number 24 was manually annotated 93 times for cluster E.

Info for manual annotations of cluster EA7:

- Start number 15 was manually annotated 1 time for cluster EA7.

Info for manual annotations of cluster EC:

- Start number 18 was manually annotated 2 times for cluster EC.

Info for manual annotations of cluster EQ:

- Start number 18 was manually annotated 2 times for cluster EQ.

Info for manual annotations of cluster FC:

- Start number 17 was manually annotated 6 times for cluster FC.
- Start number 23 was manually annotated 1 time for cluster FC.

Info for manual annotations of cluster K6:

- Start number 14 was manually annotated 1 time for cluster K6.

Gene Information:

Gene: ABCat_99 Start: 61561, Stop: 61758, Start Num: 24

Candidate Starts for ABCat_99:

(2, 61384), (Start: 16 @61540 has 1 MA's), (Start: 24 @61561 has 93 MA's), (28, 61606), (32, 61624), (40, 61666), (47, 61720),

Gene: Adnama_106 Start: 60871, Stop: 61068, Start Num: 24

Candidate Starts for Adnama_106:

(2, 60694), (Start: 16 @60850 has 1 MA's), (Start: 24 @60871 has 93 MA's), (28, 60916), (32, 60934), (40, 60976), (47, 61030),

Gene: AgentM_44 Start: 34563, Stop: 34327, Start Num: 19

Candidate Starts for AgentM_44:

(Start: 11 @34632 has 3 MA's), (Start: 19 @34563 has 29 MA's),

Gene: Airmid_47 Start: 34794, Stop: 34489, Start Num: 11

Candidate Starts for Airmid_47:

(Start: 11 @34794 has 3 MA's), (Start: 19 @34725 has 29 MA's), (43, 34560),

Gene: Alok_23 Start: 11841, Stop: 12056, Start Num: 21

Candidate Starts for Alok_23:

(12, 11784), (Start: 19 @11838 has 29 MA's), (Start: 21 @11841 has 11 MA's), (28, 11898), (34, 11931), (37, 11943), (38, 11946), (48, 12015),

Gene: Alone3_74 Start: 28535, Stop: 28747, Start Num: 19

Candidate Starts for Alone3_74:

(Start: 19 @28535 has 29 MA's), (34, 28625), (40, 28652), (44, 28694), (46, 28706), (47, 28709),

Gene: Amao_102 Start: 60964, Stop: 61182, Start Num: 16

Candidate Starts for Amao_102:

(2, 60808), (Start: 16 @60964 has 1 MA's), (Start: 24 @60985 has 93 MA's), (28, 61030), (32, 61048), (40, 61090), (47, 61144),

Gene: Amoonguss_23 Start: 11844, Stop: 12059, Start Num: 21

Candidate Starts for Amoonguss_23:

(12, 11787), (Start: 19 @11841 has 29 MA's), (Start: 21 @11844 has 11 MA's), (28, 11901), (34, 11934), (37, 11946), (38, 11949), (48, 12018),

Gene: Aragog_44 Start: 34583, Stop: 34347, Start Num: 19

Candidate Starts for Aragog_44:

(Start: 11 @34652 has 3 MA's), (Start: 19 @34583 has 29 MA's),

Gene: Argena_23 Start: 11841, Stop: 12056, Start Num: 21

Candidate Starts for Argena_23:

(12, 11784), (Start: 19 @11838 has 29 MA's), (Start: 21 @11841 has 11 MA's), (28, 11898), (34, 11931), (37, 11943), (38, 11946), (48, 12015),

Gene: Argent26_106 Start: 60795, Stop: 60992, Start Num: 24

Candidate Starts for Argent26_106:

(2, 60618), (Start: 16 @60774 has 1 MA's), (Start: 24 @60795 has 93 MA's), (28, 60840), (32, 60858), (40, 60900), (47, 60954),

Gene: Asriel_100 Start: 59208, Stop: 59405, Start Num: 24

Candidate Starts for Asriel_100:

(2, 59031), (Start: 16 @59187 has 1 MA's), (Start: 24 @59208 has 93 MA's), (28, 59253), (32, 59271), (40, 59313), (47, 59367),

Gene: BRock_64 Start: 24495, Stop: 24707, Start Num: 19

Candidate Starts for BRock_64:

(Start: 19 @24495 has 29 MA's), (34, 24585), (42, 24639), (46, 24666), (47, 24669),

Gene: BadStone_99 Start: 61130, Stop: 61327, Start Num: 24

Candidate Starts for BadStone_99:

(2, 60953), (Start: 16 @61109 has 1 MA's), (Start: 24 @61130 has 93 MA's), (28, 61175), (32, 61193), (40, 61235), (47, 61289),

Gene: Balomoji_102 Start: 60991, Stop: 61188, Start Num: 24

Candidate Starts for Balomoji_102:

(2, 60814), (Start: 16 @60970 has 1 MA's), (Start: 24 @60991 has 93 MA's), (28, 61036), (32, 61054), (40, 61096), (47, 61150),

Gene: Barbarian_101 Start: 59208, Stop: 59405, Start Num: 24

Candidate Starts for Barbarian_101:

(2, 59031), (Start: 16 @59187 has 1 MA's), (Start: 24 @59208 has 93 MA's), (28, 59253), (32, 59271), (40, 59313), (47, 59367),

Gene: Bask21_102 Start: 59847, Stop: 60044, Start Num: 24

Candidate Starts for Bask21_102:

(2, 59670), (Start: 16 @59826 has 1 MA's), (Start: 24 @59847 has 93 MA's), (28, 59892), (32, 59910), (40, 59952), (47, 60006),

Gene: Beleetus_70 Start: 26659, Stop: 26871, Start Num: 19

Candidate Starts for Beleetus_70:

(Start: 19 @26659 has 29 MA's), (26, 26701), (34, 26749), (44, 26818), (46, 26830), (47, 26833),

Gene: Benedict_49 Start: 34952, Stop: 34716, Start Num: 19

Candidate Starts for Benedict_49:

(Start: 19 @34952 has 29 MA's),

Gene: Beted_23 Start: 11467, Stop: 11682, Start Num: 21

Candidate Starts for Beted_23:

(Start: 19 @11464 has 29 MA's), (Start: 21 @11467 has 11 MA's), (28, 11524), (34, 11557), (38, 11572), (48, 11641),

Gene: BigAnti_27 Start: 33173, Stop: 33421, Start Num: 18

Candidate Starts for BigAnti_27:

(Start: 18 @33173 has 22 MA's), (41, 33308), (48, 33362),

Gene: BigBubba_102 Start: 59904, Stop: 60101, Start Num: 24

Candidate Starts for BigBubba_102:

(2, 59727), (Start: 16 @59883 has 1 MA's), (Start: 24 @59904 has 93 MA's), (28, 59949), (32, 59967), (40, 60009), (47, 60063),

Gene: BilboSwaggins_100 Start: 61530, Stop: 61727, Start Num: 24

Candidate Starts for BilboSwaggins_100:

(2, 61353), (Start: 16 @61509 has 1 MA's), (Start: 24 @61530 has 93 MA's), (28, 61575), (32, 61593), (40, 61635), (47, 61689),

Gene: Bing_31 Start: 25537, Stop: 25779, Start Num: 18

Candidate Starts for Bing_31:
(Start: 18 @25537 has 22 MA's), (48, 25729), (49, 25747),

Gene: Bloom_190 Start: 124505, Stop: 124735, Start Num: 17
Candidate Starts for Bloom_190:
(Start: 17 @124505 has 6 MA's), (48, 124682),

Gene: Bluefalcon_44 Start: 35138, Stop: 34902, Start Num: 19
Candidate Starts for Bluefalcon_44:
(Start: 11 @35207 has 3 MA's), (Start: 19 @35138 has 29 MA's),

Gene: Bogg_102 Start: 61071, Stop: 61268, Start Num: 24
Candidate Starts for Bogg_102:
(2, 60894), (Start: 16 @61050 has 1 MA's), (Start: 24 @61071 has 93 MA's), (28, 61116), (32, 61134),
(40, 61176), (47, 61230),

Gene: Bruin_99 Start: 60236, Stop: 60433, Start Num: 24
Candidate Starts for Bruin_99:
(2, 60059), (Start: 16 @60215 has 1 MA's), (Start: 24 @60236 has 93 MA's), (28, 60281), (32, 60299),
(40, 60341), (47, 60395),

Gene: Buck_103 Start: 62073, Stop: 62270, Start Num: 24
Candidate Starts for Buck_103:
(2, 61896), (Start: 16 @62052 has 1 MA's), (Start: 24 @62073 has 93 MA's), (28, 62118), (32, 62136),
(40, 62178), (47, 62232),

Gene: Cactus_106 Start: 60490, Stop: 60687, Start Num: 24
Candidate Starts for Cactus_106:
(2, 60313), (Start: 16 @60469 has 1 MA's), (Start: 24 @60490 has 93 MA's), (28, 60535), (32, 60553),
(40, 60595), (47, 60649),

Gene: Chadwick_49 Start: 34763, Stop: 34527, Start Num: 19
Candidate Starts for Chadwick_49:
(Start: 11 @34832 has 3 MA's), (Start: 19 @34763 has 29 MA's), (39, 34640),

Gene: CherryBlossom_30 Start: 25644, Stop: 25883, Start Num: 18
Candidate Starts for CherryBlossom_30:
(Start: 18 @25644 has 22 MA's), (42, 25803), (48, 25833),

Gene: Chidiebere_24 Start: 11838, Stop: 12056, Start Num: 19
Candidate Starts for Chidiebere_24:
(12, 11784), (Start: 19 @11838 has 29 MA's), (Start: 21 @11841 has 11 MA's), (28, 11898), (34,
11931), (38, 11946), (45, 12000), (48, 12015),

Gene: ChisanaKitsune_20 Start: 10536, Stop: 10751, Start Num: 21
Candidate Starts for ChisanaKitsune_20:
(Start: 19 @10533 has 29 MA's), (Start: 21 @10536 has 11 MA's), (28, 10593), (34, 10626), (38,
10641), (45, 10695), (48, 10710),

Gene: ChosenOne_102 Start: 60439, Stop: 60636, Start Num: 24
Candidate Starts for ChosenOne_102:
(2, 60262), (Start: 16 @60418 has 1 MA's), (Start: 24 @60439 has 93 MA's), (28, 60484), (32, 60502),
(40, 60544), (47, 60598),

Gene: ChotaBhai_102 Start: 60849, Stop: 61046, Start Num: 24
Candidate Starts for ChotaBhai_102:
(2, 60672), (Start: 16 @60828 has 1 MA's), (Start: 24 @60849 has 93 MA's), (28, 60894), (32, 60912),
(47, 61008),

Gene: Command613_104 Start: 61005, Stop: 61202, Start Num: 24
Candidate Starts for Command613_104:
(2, 60828), (Start: 16 @60984 has 1 MA's), (Start: 24 @61005 has 93 MA's), (28, 61050), (32, 61068),
(40, 61110), (47, 61164),

Gene: Conspiracy_45 Start: 34805, Stop: 34569, Start Num: 19
Candidate Starts for Conspiracy_45:
(Start: 11 @34874 has 3 MA's), (Start: 19 @34805 has 29 MA's),

Gene: Contagion_98 Start: 60598, Stop: 60795, Start Num: 24
Candidate Starts for Contagion_98:
(2, 60421), (Start: 16 @60577 has 1 MA's), (Start: 24 @60598 has 93 MA's), (28, 60643), (32, 60661),
(40, 60703), (47, 60757),

Gene: Coog_45 Start: 35035, Stop: 34730, Start Num: 11
Candidate Starts for Coog_45:
(Start: 11 @35035 has 3 MA's), (Start: 19 @34966 has 29 MA's),

Gene: Cookies_99 Start: 60775, Stop: 60972, Start Num: 24
Candidate Starts for Cookies_99:
(2, 60598), (Start: 16 @60754 has 1 MA's), (Start: 24 @60775 has 93 MA's), (28, 60820), (32, 60838),
(40, 60880), (47, 60934),

Gene: CrystalP_101 Start: 61530, Stop: 61727, Start Num: 24
Candidate Starts for CrystalP_101:
(2, 61353), (Start: 16 @61509 has 1 MA's), (Start: 24 @61530 has 93 MA's), (28, 61575), (32, 61593),
(40, 61635), (47, 61689),

Gene: Cuco_45 Start: 34838, Stop: 34602, Start Num: 19
Candidate Starts for Cuco_45:
(Start: 11 @34907 has 3 MA's), (Start: 19 @34838 has 29 MA's),

Gene: Daikon_102 Start: 60404, Stop: 60601, Start Num: 24
Candidate Starts for Daikon_102:
(2, 60227), (Start: 16 @60383 has 1 MA's), (Start: 24 @60404 has 93 MA's), (28, 60449), (32, 60467),
(40, 60509), (47, 60563),

Gene: DoctorDiddles_101 Start: 60253, Stop: 60450, Start Num: 24
Candidate Starts for DoctorDiddles_101:
(2, 60076), (Start: 16 @60232 has 1 MA's), (Start: 24 @60253 has 93 MA's), (28, 60298), (32, 60316),
(40, 60358), (47, 60412),

Gene: DrDrey_102 Start: 62268, Stop: 62465, Start Num: 24
Candidate Starts for DrDrey_102:
(2, 62091), (Start: 16 @62247 has 1 MA's), (Start: 24 @62268 has 93 MA's), (28, 62313), (32, 62331),
(40, 62373), (47, 62427),

Gene: Dublin_45 Start: 34974, Stop: 34738, Start Num: 19

Candidate Starts for Dublin_45:

(Start: 19 @34974 has 29 MA's),

Gene: Dusk_99 Start: 60790, Stop: 60987, Start Num: 24

Candidate Starts for Dusk_99:

(2, 60613), (Start: 16 @60769 has 1 MA's), (Start: 24 @60790 has 93 MA's), (28, 60835), (32, 60853), (40, 60895), (47, 60949),

Gene: Easy2Say_102 Start: 61262, Stop: 61459, Start Num: 24

Candidate Starts for Easy2Say_102:

(2, 61085), (Start: 16 @61241 has 1 MA's), (Start: 24 @61262 has 93 MA's), (28, 61307), (32, 61325), (40, 61367), (47, 61421),

Gene: EITiger69_48 Start: 34934, Stop: 34698, Start Num: 19

Candidate Starts for EITiger69_48:

(Start: 11 @35003 has 3 MA's), (Start: 19 @34934 has 29 MA's),

Gene: Elite2014_101 Start: 60438, Stop: 60635, Start Num: 24

Candidate Starts for Elite2014_101:

(2, 60261), (Start: 16 @60417 has 1 MA's), (Start: 24 @60438 has 93 MA's), (28, 60483), (32, 60501), (40, 60543), (47, 60597),

Gene: Emmina_102 Start: 60213, Stop: 60410, Start Num: 24

Candidate Starts for Emmina_102:

(2, 60036), (Start: 16 @60192 has 1 MA's), (Start: 24 @60213 has 93 MA's), (28, 60258), (32, 60276), (40, 60318), (47, 60372),

Gene: EmoNemo_23 Start: 11841, Stop: 12056, Start Num: 21

Candidate Starts for EmoNemo_23:

(12, 11784), (Start: 19 @11838 has 29 MA's), (Start: 21 @11841 has 11 MA's), (28, 11898), (34, 11931), (37, 11943), (38, 11946), (48, 12015),

Gene: Esketit_30 Start: 25627, Stop: 25866, Start Num: 18

Candidate Starts for Esketit_30:

(Start: 18 @25627 has 22 MA's), (42, 25786), (48, 25816),

Gene: Eureka_101 Start: 61401, Stop: 61598, Start Num: 24

Candidate Starts for Eureka_101:

(2, 61224), (Start: 16 @61380 has 1 MA's), (Start: 24 @61401 has 93 MA's), (28, 61446), (32, 61464), (40, 61506), (47, 61560),

Gene: Farrylious_22 Start: 11594, Stop: 11809, Start Num: 21

Candidate Starts for Farrylious_22:

(12, 11537), (Start: 19 @11591 has 29 MA's), (Start: 21 @11594 has 11 MA's), (28, 11651), (34, 11684), (37, 11696), (38, 11699), (48, 11768),

Gene: FidgetOrca_30 Start: 25633, Stop: 25872, Start Num: 18

Candidate Starts for FidgetOrca_30:

(Start: 18 @25633 has 22 MA's), (42, 25792), (48, 25822),

Gene: FireRed_105 Start: 61677, Stop: 61874, Start Num: 24

Candidate Starts for FireRed_105:

(2, 61500), (Start: 16 @61656 has 1 MA's), (Start: 24 @61677 has 93 MA's), (28, 61722), (32, 61740), (40, 61782), (47, 61836),

Gene: FloraSnap32_183 Start: 122836, Stop: 123066, Start Num: 17
Candidate Starts for FloraSnap32_183:
(Start: 17 @122836 has 6 MA's), (48, 123013),

Gene: Flypotenuse_98 Start: 59862, Stop: 60059, Start Num: 24
Candidate Starts for Flypotenuse_98:
(2, 59685), (Start: 16 @59841 has 1 MA's), (Start: 24 @59862 has 93 MA's), (28, 59907), (32, 59925), (40, 59967), (47, 60021),

Gene: ForGetIt_45 Start: 34830, Stop: 34594, Start Num: 19
Candidate Starts for ForGetIt_45:
(Start: 11 @34899 has 3 MA's), (Start: 19 @34830 has 29 MA's),

Gene: FrostedClock_189 Start: 125166, Stop: 125396, Start Num: 17
Candidate Starts for FrostedClock_189:
(Start: 17 @125166 has 6 MA's), (48, 125343),

Gene: Fudan_74 Start: 27328, Stop: 27540, Start Num: 19
Candidate Starts for Fudan_74:
(Start: 19 @27328 has 29 MA's), (34, 27418), (40, 27445), (44, 27487), (46, 27499), (47, 27502),

Gene: Gage_104 Start: 60933, Stop: 61130, Start Num: 24
Candidate Starts for Gage_104:
(2, 60756), (Start: 24 @60933 has 93 MA's), (28, 60978), (32, 60996), (40, 61038), (47, 61092),

Gene: Garnacho_65 Start: 26235, Stop: 26447, Start Num: 19
Candidate Starts for Garnacho_65:
(Start: 19 @26235 has 29 MA's), (34, 26325), (42, 26379), (46, 26406), (47, 26409),

Gene: Gator_100 Start: 60718, Stop: 60915, Start Num: 24
Candidate Starts for Gator_100:
(2, 60541), (Start: 16 @60697 has 1 MA's), (Start: 24 @60718 has 93 MA's), (28, 60763), (32, 60781), (40, 60823), (47, 60877),

Gene: Gemini_107 Start: 61312, Stop: 61509, Start Num: 24
Candidate Starts for Gemini_107:
(2, 61135), (Start: 16 @61291 has 1 MA's), (Start: 24 @61312 has 93 MA's), (28, 61357), (32, 61375), (40, 61417), (47, 61471),

Gene: Ghouboy_48 Start: 35709, Stop: 35473, Start Num: 19
Candidate Starts for Ghouboy_48:
(Start: 11 @35778 has 3 MA's), (Start: 19 @35709 has 29 MA's),

Gene: GiJojo_63 Start: 26714, Stop: 26926, Start Num: 21
Candidate Starts for GiJojo_63:
(Start: 21 @26714 has 11 MA's), (34, 26804), (42, 26858), (46, 26885), (47, 26888),

Gene: Goku_101 Start: 61130, Stop: 61327, Start Num: 24
Candidate Starts for Goku_101:

(2, 60953), (Start: 16 @61109 has 1 MA's), (Start: 24 @61130 has 93 MA's), (28, 61175), (32, 61193), (40, 61235), (47, 61289),

Gene: GoldenEssence_174 Start: 118714, Stop: 118944, Start Num: 17
Candidate Starts for GoldenEssence_174:
(Start: 17 @118714 has 6 MA's), (48, 118891),

Gene: GoldenSpark_106 Start: 60795, Stop: 60992, Start Num: 24
Candidate Starts for GoldenSpark_106:
(2, 60618), (Start: 16 @60774 has 1 MA's), (Start: 24 @60795 has 93 MA's), (28, 60840), (32, 60858), (40, 60900), (47, 60954),

Gene: Goldilocks_105 Start: 60712, Stop: 60909, Start Num: 24
Candidate Starts for Goldilocks_105:
(2, 60535), (Start: 16 @60691 has 1 MA's), (Start: 24 @60712 has 93 MA's), (28, 60757), (32, 60775), (40, 60817), (47, 60871),

Gene: GooberAzure_105 Start: 60795, Stop: 60992, Start Num: 24
Candidate Starts for GooberAzure_105:
(2, 60618), (Start: 16 @60774 has 1 MA's), (Start: 24 @60795 has 93 MA's), (28, 60840), (32, 60858), (40, 60900), (47, 60954),

Gene: Gray_24 Start: 11841, Stop: 12056, Start Num: 21
Candidate Starts for Gray_24:
(12, 11784), (Start: 19 @11838 has 29 MA's), (Start: 21 @11841 has 11 MA's), (28, 11898), (34, 11931), (37, 11943), (38, 11946), (48, 12015),

Gene: Greep_106 Start: 62367, Stop: 62564, Start Num: 24
Candidate Starts for Greep_106:
(2, 62190), (Start: 16 @62346 has 1 MA's), (Start: 24 @62367 has 93 MA's), (28, 62412), (32, 62430), (40, 62472), (47, 62526),

Gene: Hanem_24 Start: 11841, Stop: 12056, Start Num: 21
Candidate Starts for Hanem_24:
(12, 11784), (Start: 19 @11838 has 29 MA's), (Start: 21 @11841 has 11 MA's), (28, 11898), (34, 11931), (37, 11943), (38, 11946), (48, 12015),

Gene: Harella_102 Start: 61508, Stop: 61705, Start Num: 24
Candidate Starts for Harella_102:
(2, 61331), (Start: 16 @61487 has 1 MA's), (Start: 24 @61508 has 93 MA's), (28, 61553), (32, 61571), (40, 61613), (47, 61667),

Gene: Henry_99 Start: 60835, Stop: 61032, Start Num: 24
Candidate Starts for Henry_99:
(2, 60658), (Start: 16 @60814 has 1 MA's), (Start: 24 @60835 has 93 MA's), (28, 60880), (32, 60898), (40, 60940), (47, 60994),

Gene: Holt_107 Start: 61209, Stop: 61406, Start Num: 24
Candidate Starts for Holt_107:
(2, 61032), (Start: 16 @61188 has 1 MA's), (Start: 24 @61209 has 93 MA's), (28, 61254), (32, 61272), (40, 61314), (47, 61368),

Gene: Hoonter_105 Start: 61288, Stop: 61485, Start Num: 24

Candidate Starts for Hoonter_105:

(2, 61111), (Start: 16 @61267 has 1 MA's), (Start: 24 @61288 has 93 MA's), (28, 61333), (32, 61351), (40, 61393), (47, 61447),

Gene: Hoshi_30 Start: 25627, Stop: 25866, Start Num: 18

Candidate Starts for Hoshi_30:

(Start: 18 @25627 has 22 MA's), (42, 25786), (48, 25816),

Gene: HufflyPuff_104 Start: 61903, Stop: 62100, Start Num: 24

Candidate Starts for HufflyPuff_104:

(2, 61726), (Start: 16 @61882 has 1 MA's), (Start: 24 @61903 has 93 MA's), (28, 61948), (32, 61966), (40, 62008), (47, 62062),

Gene: IHOP_100 Start: 60511, Stop: 60708, Start Num: 24

Candidate Starts for IHOP_100:

(2, 60334), (Start: 16 @60490 has 1 MA's), (Start: 24 @60511 has 93 MA's), (28, 60556), (32, 60574), (40, 60616), (47, 60670),

Gene: IceWarrior_30 Start: 25627, Stop: 25866, Start Num: 18

Candidate Starts for IceWarrior_30:

(Start: 18 @25627 has 22 MA's), (42, 25786), (48, 25816),

Gene: Icee_103 Start: 60319, Stop: 60516, Start Num: 24

Candidate Starts for Icee_103:

(2, 60142), (Start: 16 @60298 has 1 MA's), (Start: 24 @60319 has 93 MA's), (28, 60364), (32, 60382), (40, 60424), (47, 60478),

Gene: Inca_99 Start: 59000, Stop: 59197, Start Num: 24

Candidate Starts for Inca_99:

(2, 58823), (Start: 16 @58979 has 1 MA's), (Start: 24 @59000 has 93 MA's), (28, 59045), (32, 59063), (40, 59105), (47, 59159),

Gene: Indigenous_30 Start: 25627, Stop: 25866, Start Num: 18

Candidate Starts for Indigenous_30:

(Start: 18 @25627 has 22 MA's), (42, 25786), (48, 25816),

Gene: Jabiru_47 Start: 34807, Stop: 34571, Start Num: 19

Candidate Starts for Jabiru_47:

(Start: 11 @34876 has 3 MA's), (Start: 19 @34807 has 29 MA's), (39, 34684),

Gene: Jaylociraptor_30 Start: 25627, Stop: 25866, Start Num: 18

Candidate Starts for Jaylociraptor_30:

(Start: 18 @25627 has 22 MA's), (42, 25786), (48, 25816),

Gene: Jovo_45 Start: 35086, Stop: 34850, Start Num: 19

Candidate Starts for Jovo_45:

(Start: 11 @35155 has 3 MA's), (Start: 19 @35086 has 29 MA's),

Gene: Kabocha_25 Start: 12654, Stop: 12869, Start Num: 21

Candidate Starts for Kabocha_25:

(12, 12597), (Start: 19 @12651 has 29 MA's), (Start: 21 @12654 has 11 MA's), (28, 12711), (34, 12744), (37, 12756), (38, 12759), (48, 12828),

Gene: Kanye_99 Start: 61044, Stop: 61241, Start Num: 24

Candidate Starts for Kanye_99:

(2, 60867), (Start: 16 @61023 has 1 MA's), (Start: 24 @61044 has 93 MA's), (28, 61089), (32, 61107), (40, 61149), (47, 61203),

Gene: Kimchi_106 Start: 60936, Stop: 61133, Start Num: 24

Candidate Starts for Kimchi_106:

(2, 60759), (Start: 16 @60915 has 1 MA's), (Start: 24 @60936 has 93 MA's), (28, 60981), (32, 60999), (40, 61041), (47, 61095),

Gene: Kostya_102 Start: 60613, Stop: 60810, Start Num: 24

Candidate Starts for Kostya_102:

(2, 60436), (Start: 16 @60592 has 1 MA's), (Start: 24 @60613 has 93 MA's), (28, 60658), (32, 60676), (40, 60718), (47, 60772),

Gene: Kudrefre_102 Start: 58639, Stop: 58851, Start Num: 21

Candidate Starts for Kudrefre_102:

(Start: 21 @58639 has 11 MA's), (33, 58729), (39, 58750), (47, 58813), (50, 58843),

Gene: Laure_187 Start: 116319, Stop: 116528, Start Num: 17

Candidate Starts for Laure_187:

(Start: 17 @116319 has 6 MA's), (25, 116349), (43, 116472), (48, 116496),

Gene: Lenoshki_23 Start: 11467, Stop: 11682, Start Num: 21

Candidate Starts for Lenoshki_23:

(Start: 19 @11464 has 29 MA's), (Start: 21 @11467 has 11 MA's), (28, 11524), (34, 11557), (38, 11572), (48, 11641),

Gene: Lev2_45 Start: 34718, Stop: 34482, Start Num: 19

Candidate Starts for Lev2_45:

(Start: 11 @34787 has 3 MA's), (Start: 19 @34718 has 29 MA's),

Gene: Lilpickle_101 Start: 60438, Stop: 60635, Start Num: 24

Candidate Starts for Lilpickle_101:

(2, 60261), (Start: 16 @60417 has 1 MA's), (Start: 24 @60438 has 93 MA's), (28, 60483), (32, 60501), (40, 60543), (47, 60597),

Gene: LuckySocke_72 Start: 27277, Stop: 27489, Start Num: 19

Candidate Starts for LuckySocke_72:

(Start: 19 @27277 has 29 MA's), (34, 27367), (40, 27394), (44, 27436), (46, 27448), (47, 27451),

Gene: MISSy_103 Start: 61721, Stop: 61918, Start Num: 24

Candidate Starts for MISSy_103:

(2, 61544), (3, 61598), (Start: 16 @61700 has 1 MA's), (Start: 24 @61721 has 93 MA's), (28, 61766), (32, 61784), (40, 61826), (47, 61880),

Gene: MPhalcon_103 Start: 61138, Stop: 61335, Start Num: 24

Candidate Starts for MPhalcon_103:

(2, 60961), (Start: 16 @61117 has 1 MA's), (Start: 24 @61138 has 93 MA's), (28, 61183), (32, 61201), (40, 61243), (47, 61297),

Gene: Manda_103 Start: 61175, Stop: 61372, Start Num: 24

Candidate Starts for Manda_103:

(2, 60998), (Start: 16 @61154 has 1 MA's), (Start: 24 @61175 has 93 MA's), (28, 61220), (32, 61238), (40, 61280), (47, 61334),

Gene: Marshawn_5 Start: 936, Stop: 1178, Start Num: 14

Candidate Starts for Marshawn_5:

(Start: 14 @936 has 1 MA's), (29, 1017), (47, 1128),

Gene: Marshmallow_99 Start: 61133, Stop: 61330, Start Num: 24

Candidate Starts for Marshmallow_99:

(2, 60956), (Start: 16 @61112 has 1 MA's), (Start: 24 @61133 has 93 MA's), (28, 61178), (32, 61196), (40, 61238), (47, 61292),

Gene: MarysWell_45 Start: 35217, Stop: 34981, Start Num: 19

Candidate Starts for MarysWell_45:

(Start: 11 @35286 has 3 MA's), (Start: 19 @35217 has 29 MA's),

Gene: Maya_30 Start: 25641, Stop: 25880, Start Num: 18

Candidate Starts for Maya_30:

(Start: 18 @25641 has 22 MA's), (42, 25800), (48, 25830),

Gene: Meibysrarus_30 Start: 25627, Stop: 25866, Start Num: 18

Candidate Starts for Meibysrarus_30:

(Start: 18 @25627 has 22 MA's), (42, 25786), (48, 25816),

Gene: MicyPS_26 Start: 28079, Stop: 28330, Start Num: 18

Candidate Starts for MicyPS_26:

(4, 27974), (6, 27977), (7, 27983), (9, 27998), (10, 28010), (13, 28049), (Start: 18 @28079 has 22 MA's), (27, 28139), (32, 28169), (38, 28199), (40, 28211), (41, 28214), (45, 28253), (48, 28268), (52, 28304),

Gene: Midas2_45 Start: 34966, Stop: 34730, Start Num: 19

Candidate Starts for Midas2_45:

(Start: 11 @35035 has 3 MA's), (Start: 19 @34966 has 29 MA's),

Gene: Mikronejon_23 Start: 11838, Stop: 12056, Start Num: 19

Candidate Starts for Mikronejon_23:

(12, 11784), (Start: 19 @11838 has 29 MA's), (Start: 21 @11841 has 11 MA's), (28, 11898), (34, 11931), (37, 11943), (38, 11946), (48, 12015),

Gene: Mimi_186 Start: 124218, Stop: 124448, Start Num: 17

Candidate Starts for Mimi_186:

(Start: 17 @124218 has 6 MA's), (48, 124395),

Gene: Mindy_101 Start: 60454, Stop: 60651, Start Num: 24

Candidate Starts for Mindy_101:

(2, 60277), (Start: 16 @60433 has 1 MA's), (Start: 24 @60454 has 93 MA's), (28, 60499), (32, 60517), (40, 60559), (47, 60613),

Gene: Miniwave_97 Start: 60631, Stop: 60828, Start Num: 24

Candidate Starts for Miniwave_97:

(2, 60454), (Start: 16 @60610 has 1 MA's), (Start: 24 @60631 has 93 MA's), (28, 60676), (32, 60694), (40, 60736), (47, 60790),

Gene: MintFritos_23 Start: 11841, Stop: 12056, Start Num: 21

Candidate Starts for MintFritos_23:

(12, 11784), (Start: 19 @11838 has 29 MA's), (Start: 21 @11841 has 11 MA's), (28, 11898), (34, 11931), (37, 11943), (38, 11946), (48, 12015),

Gene: Misfit_103 Start: 62234, Stop: 62431, Start Num: 24

Candidate Starts for Misfit_103:

(2, 62057), (Start: 16 @62213 has 1 MA's), (Start: 24 @62234 has 93 MA's), (28, 62279), (32, 62297), (40, 62339), (47, 62393),

Gene: Mosby_98 Start: 60598, Stop: 60795, Start Num: 24

Candidate Starts for Mosby_98:

(2, 60421), (Start: 16 @60577 has 1 MA's), (Start: 24 @60598 has 93 MA's), (28, 60643), (32, 60661), (40, 60703), (47, 60757),

Gene: Murica_105 Start: 62937, Stop: 63134, Start Num: 24

Candidate Starts for Murica_105:

(2, 62760), (3, 62814), (Start: 16 @62916 has 1 MA's), (Start: 24 @62937 has 93 MA's), (28, 62982), (32, 63000), (40, 63042), (47, 63096),

Gene: Myrale_102 Start: 61293, Stop: 61490, Start Num: 24

Candidate Starts for Myrale_102:

(2, 61116), (Start: 16 @61272 has 1 MA's), (Start: 24 @61293 has 93 MA's), (28, 61338), (32, 61356), (40, 61398), (47, 61452),

Gene: Naca_47 Start: 35412, Stop: 35107, Start Num: 11

Candidate Starts for Naca_47:

(Start: 11 @35412 has 3 MA's), (Start: 19 @35343 has 29 MA's), (39, 35220), (43, 35178),

Gene: Nala_104 Start: 61647, Stop: 61844, Start Num: 24

Candidate Starts for Nala_104:

(2, 61470), (Start: 16 @61626 has 1 MA's), (Start: 24 @61647 has 93 MA's), (28, 61692), (32, 61710), (40, 61752), (47, 61806),

Gene: Namo_30 Start: 25633, Stop: 25872, Start Num: 18

Candidate Starts for Namo_30:

(Start: 18 @25633 has 22 MA's), (42, 25792), (48, 25822),

Gene: NelitzaMV_99 Start: 59641, Stop: 59838, Start Num: 24

Candidate Starts for NelitzaMV_99:

(2, 59464), (Start: 16 @59620 has 1 MA's), (Start: 24 @59641 has 93 MA's), (28, 59686), (32, 59704), (40, 59746), (47, 59800),

Gene: Nimrod_102 Start: 61260, Stop: 61457, Start Num: 24

Candidate Starts for Nimrod_102:

(2, 61083), (Start: 16 @61239 has 1 MA's), (Start: 24 @61260 has 93 MA's), (28, 61305), (32, 61323), (40, 61365), (47, 61419),

Gene: NonchalantPear_100 Start: 59888, Stop: 60085, Start Num: 24

Candidate Starts for NonchalantPear_100:

(2, 59711), (Start: 24 @59888 has 93 MA's), (28, 59933), (32, 59951), (40, 59993), (47, 60047),

Gene: NoodlelyBoi_26 Start: 13691, Stop: 13933, Start Num: 18

Candidate Starts for NoodlelyBoi_26:
(Start: 18 @13691 has 22 MA's), (30, 13772), (43, 13859), (48, 13883),

Gene: Octobien14_100 Start: 58045, Stop: 58257, Start Num: 21
Candidate Starts for Octobien14_100:
(Start: 21 @58045 has 11 MA's), (33, 58135), (39, 58156), (47, 58219), (51, 58252),

Gene: OlympicHelado_30 Start: 25633, Stop: 25872, Start Num: 18
Candidate Starts for OlympicHelado_30:
(Start: 18 @25633 has 22 MA's), (42, 25792), (48, 25822),

Gene: Oogie_23 Start: 11493, Stop: 11708, Start Num: 21
Candidate Starts for Oogie_23:
(Start: 19 @11490 has 29 MA's), (Start: 21 @11493 has 11 MA's), (28, 11550), (34, 11583), (38, 11598), (48, 11667),

Gene: PSonyx_28 Start: 27311, Stop: 27562, Start Num: 18
Candidate Starts for PSonyx_28:
(Start: 18 @27311 has 22 MA's), (Start: 21 @27314 has 11 MA's), (27, 27371), (38, 27431), (39, 27434), (40, 27443), (41, 27446), (45, 27485), (48, 27500), (52, 27536), (53, 27539),

Gene: Pakusa_23 Start: 11583, Stop: 11798, Start Num: 21
Candidate Starts for Pakusa_23:
(12, 11526), (Start: 19 @11580 has 29 MA's), (Start: 21 @11583 has 11 MA's), (28, 11640), (34, 11673), (37, 11685), (38, 11688), (48, 11757),

Gene: Panchaali_179 Start: 122700, Stop: 122903, Start Num: 23
Candidate Starts for Panchaali_179:
(Start: 15 @122679 has 1 MA's), (Start: 23 @122700 has 1 MA's), (35, 122790), (48, 122871),

Gene: Paperbeatsrock_101 Start: 61309, Stop: 61506, Start Num: 24
Candidate Starts for Paperbeatsrock_101:
(2, 61132), (Start: 16 @61288 has 1 MA's), (Start: 24 @61309 has 93 MA's), (28, 61354), (32, 61372), (40, 61414), (47, 61468),

Gene: Park1214_78 Start: 27760, Stop: 27972, Start Num: 19
Candidate Starts for Park1214_78:
(Start: 19 @27760 has 29 MA's), (30, 27823), (34, 27850), (46, 27931), (47, 27934),

Gene: Pat3_99 Start: 59826, Stop: 60023, Start Num: 24
Candidate Starts for Pat3_99:
(2, 59649), (Start: 16 @59805 has 1 MA's), (Start: 24 @59826 has 93 MA's), (28, 59871), (32, 59889), (40, 59931), (47, 59985),

Gene: Patbob_185 Start: 125330, Stop: 125560, Start Num: 17
Candidate Starts for Patbob_185:
(Start: 17 @125330 has 6 MA's), (48, 125507),

Gene: Petra64142_106 Start: 61798, Stop: 61995, Start Num: 24
Candidate Starts for Petra64142_106:
(2, 61621), (Start: 16 @61777 has 1 MA's), (Start: 24 @61798 has 93 MA's), (28, 61843), (32, 61861), (40, 61903), (47, 61957),

Gene: PetterN_50 Start: 34931, Stop: 34695, Start Num: 19

Candidate Starts for PetterN_50:

(Start: 11 @35000 has 3 MA's), (Start: 19 @34931 has 29 MA's),

Gene: Phaja_100 Start: 60513, Stop: 60710, Start Num: 24

Candidate Starts for Phaja_100:

(2, 60336), (Start: 16 @60492 has 1 MA's), (Start: 24 @60513 has 93 MA's), (28, 60558), (32, 60576), (40, 60618), (47, 60672),

Gene: Pharaoh_43 Start: 32085, Stop: 31876, Start Num: 21

Candidate Starts for Pharaoh_43:

(5, 32193), (8, 32181), (Start: 21 @32085 has 11 MA's), (32, 32010), (39, 31977), (47, 31914),

Gene: Pharsalus_99 Start: 61008, Stop: 61205, Start Num: 24

Candidate Starts for Pharsalus_99:

(2, 60831), (Start: 16 @60987 has 1 MA's), (Start: 24 @61008 has 93 MA's), (28, 61053), (32, 61071), (40, 61113), (47, 61167),

Gene: PhatBacter_105 Start: 61677, Stop: 61874, Start Num: 24

Candidate Starts for PhatBacter_105:

(2, 61500), (Start: 16 @61656 has 1 MA's), (Start: 24 @61677 has 93 MA's), (28, 61722), (32, 61740), (40, 61782), (47, 61836),

Gene: Phaux_104 Start: 62237, Stop: 62434, Start Num: 24

Candidate Starts for Phaux_104:

(2, 62060), (Start: 16 @62216 has 1 MA's), (Start: 24 @62237 has 93 MA's), (28, 62282), (32, 62300), (40, 62342), (47, 62396),

Gene: Phrampa_178 Start: 126373, Stop: 126600, Start Num: 17

Candidate Starts for Phrampa_178:

(Start: 17 @126373 has 6 MA's), (48, 126550),

Gene: PickleBack_45 Start: 34710, Stop: 34474, Start Num: 19

Candidate Starts for PickleBack_45:

(Start: 11 @34779 has 3 MA's), (Start: 19 @34710 has 29 MA's),

Gene: Policronamos_104 Start: 61941, Stop: 62138, Start Num: 24

Candidate Starts for Policronamos_104:

(2, 61764), (Start: 16 @61920 has 1 MA's), (Start: 24 @61941 has 93 MA's), (28, 61986), (32, 62004), (40, 62046), (47, 62100),

Gene: Ptowny_98 Start: 59349, Stop: 59546, Start Num: 24

Candidate Starts for Ptowny_98:

(2, 59172), (Start: 24 @59349 has 93 MA's), (28, 59394), (32, 59412), (40, 59454), (47, 59508),

Gene: Quallification_103 Start: 61723, Stop: 61920, Start Num: 24

Candidate Starts for Quallification_103:

(2, 61546), (Start: 16 @61702 has 1 MA's), (Start: 24 @61723 has 93 MA's), (28, 61768), (32, 61786), (40, 61828), (47, 61882),

Gene: Quhwah_29 Start: 14012, Stop: 14254, Start Num: 18

Candidate Starts for Quhwah_29:

(1, 13787), (Start: 18 @14012 has 22 MA's), (41, 14150), (43, 14180), (48, 14204),

Gene: Racecar_187 Start: 125098, Stop: 125328, Start Num: 17

Candidate Starts for Racecar_187:

(Start: 17 @125098 has 6 MA's), (48, 125275),

Gene: Rakim_103 Start: 60745, Stop: 60942, Start Num: 24

Candidate Starts for Rakim_103:

(2, 60568), (Start: 16 @60724 has 1 MA's), (Start: 24 @60745 has 93 MA's), (28, 60790), (32, 60808), (40, 60850), (47, 60904),

Gene: Rima_30 Start: 25633, Stop: 25872, Start Num: 18

Candidate Starts for Rima_30:

(Start: 18 @25633 has 22 MA's), (42, 25792), (48, 25822),

Gene: Rimmer_100 Start: 61135, Stop: 61332, Start Num: 24

Candidate Starts for Rimmer_100:

(2, 60958), (Start: 16 @61114 has 1 MA's), (Start: 24 @61135 has 93 MA's), (28, 61180), (32, 61198), (40, 61240), (47, 61294),

Gene: Sassay_97 Start: 59560, Stop: 59757, Start Num: 24

Candidate Starts for Sassay_97:

(2, 59383), (Start: 16 @59539 has 1 MA's), (Start: 24 @59560 has 93 MA's), (28, 59605), (32, 59623), (40, 59665), (47, 59719),

Gene: Schomber_23 Start: 11591, Stop: 11806, Start Num: 21

Candidate Starts for Schomber_23:

(12, 11534), (Start: 19 @11588 has 29 MA's), (Start: 21 @11591 has 11 MA's), (28, 11648), (34, 11681), (38, 11696), (45, 11750), (48, 11765),

Gene: Scorpia_50 Start: 35017, Stop: 34781, Start Num: 19

Candidate Starts for Scorpia_50:

(Start: 11 @35086 has 3 MA's), (Start: 19 @35017 has 29 MA's), (39, 34894),

Gene: Sephiroth_99 Start: 58611, Stop: 58823, Start Num: 21

Candidate Starts for Sephiroth_99:

(Start: 21 @58611 has 11 MA's), (33, 58701), (34, 58704), (39, 58722), (47, 58785),

Gene: ShamWow_102 Start: 61530, Stop: 61727, Start Num: 24

Candidate Starts for ShamWow_102:

(2, 61353), (Start: 16 @61509 has 1 MA's), (Start: 24 @61530 has 93 MA's), (28, 61575), (32, 61593), (40, 61635), (47, 61689),

Gene: ShereKhan_100 Start: 61969, Stop: 62166, Start Num: 24

Candidate Starts for ShereKhan_100:

(2, 61792), (Start: 16 @61948 has 1 MA's), (Start: 24 @61969 has 93 MA's), (28, 62014), (32, 62032), (40, 62074), (47, 62128),

Gene: SirDuracell_102 Start: 60347, Stop: 60544, Start Num: 24

Candidate Starts for SirDuracell_102:

(2, 60170), (Start: 16 @60326 has 1 MA's), (Start: 24 @60347 has 93 MA's), (28, 60392), (32, 60410), (40, 60452), (47, 60506),

Gene: SophKB_100 Start: 60770, Stop: 60967, Start Num: 24

Candidate Starts for SophKB_100:

(2, 60593), (Start: 16 @60749 has 1 MA's), (Start: 24 @60770 has 93 MA's), (28, 60815), (32, 60833), (40, 60875), (47, 60929),

Gene: Sotrice96_103 Start: 61234, Stop: 61431, Start Num: 24

Candidate Starts for Sotrice96_103:

(2, 61057), (Start: 16 @61213 has 1 MA's), (Start: 24 @61234 has 93 MA's), (28, 61279), (32, 61297), (40, 61339), (47, 61393),

Gene: Spectropatronm_30 Start: 25627, Stop: 25866, Start Num: 18

Candidate Starts for Spectropatronm_30:

(Start: 18 @25627 has 22 MA's), (42, 25786), (48, 25816),

Gene: Stank_104 Start: 61008, Stop: 61205, Start Num: 24

Candidate Starts for Stank_104:

(2, 60831), (Start: 16 @60987 has 1 MA's), (Start: 24 @61008 has 93 MA's), (28, 61053), (32, 61071), (40, 61113), (47, 61167),

Gene: StellaBean_101 Start: 61370, Stop: 61567, Start Num: 24

Candidate Starts for StellaBean_101:

(2, 61193), (Start: 16 @61349 has 1 MA's), (Start: 24 @61370 has 93 MA's), (28, 61415), (32, 61433), (40, 61475), (47, 61529),

Gene: Stewart25555_179 Start: 124346, Stop: 124552, Start Num: 22

Candidate Starts for Stewart25555_179:

(22, 124346), (48, 124520),

Gene: StolenFromERC_104 Start: 60933, Stop: 61130, Start Num: 24

Candidate Starts for StolenFromERC_104:

(2, 60756), (Start: 24 @60933 has 93 MA's), (28, 60978), (32, 60996), (40, 61038), (47, 61092),

Gene: StormChicken_103 Start: 61299, Stop: 61496, Start Num: 24

Candidate Starts for StormChicken_103:

(2, 61122), (Start: 16 @61278 has 1 MA's), (Start: 24 @61299 has 93 MA's), (28, 61344), (32, 61362), (40, 61404), (47, 61458),

Gene: SydNat_48 Start: 35718, Stop: 35482, Start Num: 19

Candidate Starts for SydNat_48:

(Start: 11 @35787 has 3 MA's), (Start: 19 @35718 has 29 MA's),

Gene: Syleon_102 Start: 58815, Stop: 59036, Start Num: 21

Candidate Starts for Syleon_102:

(Start: 21 @58815 has 11 MA's), (33, 58905), (39, 58926), (47, 58989),

Gene: TBrady12_105 Start: 60448, Stop: 60645, Start Num: 24

Candidate Starts for TBrady12_105:

(2, 60271), (Start: 16 @60427 has 1 MA's), (Start: 24 @60448 has 93 MA's), (28, 60493), (32, 60511), (40, 60553), (47, 60607),

Gene: TaidaOne_30 Start: 26275, Stop: 26514, Start Num: 18

Candidate Starts for TaidaOne_30:

(Start: 18 @26275 has 22 MA's), (42, 26434), (48, 26464),

Gene: Talia1610_187 Start: 124515, Stop: 124745, Start Num: 17
Candidate Starts for Talia1610_187:
(Start: 17 @124515 has 6 MA's), (48, 124692),

Gene: Talos_73 Start: 27089, Stop: 27301, Start Num: 20
Candidate Starts for Talos_73:
(Start: 20 @27089 has 1 MA's), (34, 27179), (40, 27206), (42, 27233), (44, 27248), (46, 27260), (47, 27263),

Gene: Taotie_24 Start: 24901, Stop: 25152, Start Num: 18
Candidate Starts for Taotie_24:
(Start: 18 @24901 has 22 MA's), (27, 24961), (31, 24988), (32, 24991), (38, 25021), (39, 25024), (40, 25033), (41, 25036), (45, 25075), (48, 25090), (52, 25126), (53, 25129),

Gene: Tarkin_101 Start: 61834, Stop: 62031, Start Num: 24
Candidate Starts for Tarkin_101:
(2, 61657), (Start: 16 @61813 has 1 MA's), (Start: 24 @61834 has 93 MA's), (28, 61879), (32, 61897), (40, 61939), (47, 61993),

Gene: TeamEdward_102 Start: 61496, Stop: 61693, Start Num: 24
Candidate Starts for TeamEdward_102:
(2, 61319), (Start: 16 @61475 has 1 MA's), (Start: 24 @61496 has 93 MA's), (28, 61541), (32, 61559), (40, 61601), (47, 61655),

Gene: TeardropMSU_98 Start: 60315, Stop: 60512, Start Num: 24
Candidate Starts for TeardropMSU_98:
(2, 60138), (Start: 16 @60294 has 1 MA's), (Start: 24 @60315 has 93 MA's), (28, 60360), (32, 60378), (40, 60420), (47, 60474),

Gene: Terminus_105 Start: 62234, Stop: 62431, Start Num: 24
Candidate Starts for Terminus_105:
(2, 62057), (Start: 16 @62213 has 1 MA's), (Start: 24 @62234 has 93 MA's), (28, 62279), (32, 62297), (40, 62339), (47, 62393),

Gene: Theia_44 Start: 35195, Stop: 34959, Start Num: 19
Candidate Starts for Theia_44:
(Start: 19 @35195 has 29 MA's),

Gene: Theresita_48 Start: 29943, Stop: 30182, Start Num: 15
Candidate Starts for Theresita_48:
(Start: 15 @29943 has 1 MA's), (Start: 23 @29967 has 1 MA's), (36, 30075), (41, 30099),

Gene: TieDye_29 Start: 25319, Stop: 25558, Start Num: 18
Candidate Starts for TieDye_29:
(Start: 18 @25319 has 22 MA's), (42, 25478), (48, 25508),

Gene: Tiger_44 Start: 34384, Stop: 34148, Start Num: 19
Candidate Starts for Tiger_44:
(Start: 11 @34453 has 3 MA's), (Start: 19 @34384 has 29 MA's),

Gene: Tomaszewski_97 Start: 60772, Stop: 60969, Start Num: 24
Candidate Starts for Tomaszewski_97:

(2, 60595), (Start: 16 @60751 has 1 MA's), (Start: 24 @60772 has 93 MA's), (28, 60817), (32, 60835), (40, 60877), (47, 60931),

Gene: Toneprano_23 Start: 11841, Stop: 12056, Start Num: 21

Candidate Starts for Toneprano_23:

(12, 11784), (Start: 19 @11838 has 29 MA's), (Start: 21 @11841 has 11 MA's), (28, 11898), (34, 11931), (37, 11943), (38, 11946), (48, 12015),

Gene: TonyStarch_30 Start: 25633, Stop: 25872, Start Num: 18

Candidate Starts for TonyStarch_30:

(Start: 18 @25633 has 22 MA's), (42, 25792), (48, 25822),

Gene: Toto_100 Start: 61530, Stop: 61727, Start Num: 24

Candidate Starts for Toto_100:

(2, 61353), (Start: 16 @61509 has 1 MA's), (Start: 24 @61530 has 93 MA's), (28, 61575), (32, 61593), (40, 61635), (47, 61689),

Gene: Traaww1_98 Start: 60037, Stop: 60234, Start Num: 24

Candidate Starts for Traaww1_98:

(2, 59860), (Start: 16 @60016 has 1 MA's), (Start: 24 @60037 has 93 MA's), (28, 60082), (32, 60100), (40, 60142), (47, 60196),

Gene: Tuco_103 Start: 62395, Stop: 62592, Start Num: 24

Candidate Starts for Tuco_103:

(2, 62218), (Start: 16 @62374 has 1 MA's), (Start: 24 @62395 has 93 MA's), (28, 62440), (32, 62458), (40, 62500), (47, 62554),

Gene: Twin_23 Start: 11841, Stop: 12056, Start Num: 21

Candidate Starts for Twin_23:

(12, 11784), (Start: 19 @11838 has 29 MA's), (Start: 21 @11841 has 11 MA's), (28, 11898), (34, 11931), (37, 11943), (38, 11946), (48, 12015),

Gene: UnionJack_47 Start: 34507, Stop: 34271, Start Num: 19

Candidate Starts for UnionJack_47:

(Start: 11 @34576 has 3 MA's), (Start: 19 @34507 has 29 MA's),

Gene: Wigberry_30 Start: 25089, Stop: 25331, Start Num: 18

Candidate Starts for Wigberry_30:

(Start: 18 @25089 has 22 MA's), (Start: 21 @25095 has 11 MA's), (48, 25281), (49, 25299),

Gene: Wiggin_104 Start: 60438, Stop: 60635, Start Num: 24

Candidate Starts for Wiggin_104:

(2, 60261), (Start: 16 @60417 has 1 MA's), (Start: 24 @60438 has 93 MA's), (28, 60483), (32, 60501), (40, 60543), (47, 60597),

Gene: Willez_97 Start: 59560, Stop: 59757, Start Num: 24

Candidate Starts for Willez_97:

(2, 59383), (Start: 16 @59539 has 1 MA's), (Start: 24 @59560 has 93 MA's), (28, 59605), (32, 59623), (40, 59665), (47, 59719),

Gene: Xandras_101 Start: 60261, Stop: 60458, Start Num: 24

Candidate Starts for Xandras_101:

(2, 60084), (Start: 24 @60261 has 93 MA's), (28, 60306), (32, 60324), (40, 60366), (47, 60420),

Gene: YassJohnny_99 Start: 59581, Stop: 59778, Start Num: 24

Candidate Starts for YassJohnny_99:

(2, 59404), (Start: 16 @59560 has 1 MA's), (Start: 24 @59581 has 93 MA's), (28, 59626), (32, 59644), (40, 59686), (47, 59740),

Gene: Youngblood_105 Start: 61731, Stop: 61928, Start Num: 24

Candidate Starts for Youngblood_105:

(2, 61554), (Start: 16 @61710 has 1 MA's), (Start: 24 @61731 has 93 MA's), (28, 61776), (32, 61794), (40, 61836), (47, 61890),

Gene: Zolita_47 Start: 35722, Stop: 35486, Start Num: 19

Candidate Starts for Zolita_47:

(Start: 11 @35791 has 3 MA's), (Start: 19 @35722 has 29 MA's),

Gene: xkcd_105 Start: 61915, Stop: 62112, Start Num: 24

Candidate Starts for xkcd_105:

(2, 61738), (Start: 16 @61894 has 1 MA's), (Start: 24 @61915 has 93 MA's), (28, 61960), (32, 61978), (40, 62020), (47, 62074),