

Pham 171314



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 171314 Report

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

Pham number 171314 has 117 members, 6 are drafts.

Phages represented in each track:

- Track 1 : Braelyn_163, Persimmon_161, Navo_159, WhereRU_165
- Track 2 : Flabslab_167, Trinitium_170, EmToTheThree_173, Shrimp_174, Ading_173, Janiyra_176, Phlegm_176, Capablanca_175, Tortoise16_170, ChickenPhender_169, Phusco_171, Ngannou_169, Nidhogg_172, Blackbrain_168, Turret_167, BananaFence_170, Gabriel_174, Chargie21_170, Shifa_162, McGee_173, Pio_179, Drazdys_172, StubbySaigey_175, InigoMontoya_175, Asterius_169, Yucca_170, Bonray_173, Pleione_174, Fludd_173, Khaleesi_170, Cactojaque_168, LifeSavor_170, SilverDipper_174, Patter_172, Gamgam_173, Littleton_173, Matsumoto_170, Wally_171, LinStu_169, HyRo_161, Chomp_171, Babyland_175, Dietrick_162, Darko_171, DTDevon_174, Pivoine_172, Audrick_175, Jessibeth14_171, PurduePete_171, Sebata_172, Lee7_170, CindyLou_174, Roots515_175, Melpomini_165, ValleyTerrace_172, ErnieJ_166, Kboogie_175, Naija_172, ArcherS7_173, Delylah_172, ChaylaJr_169, Burrough_174, Yassified_168, Astraea_167, Amataga_172, EasyJones_175, Quasimodo_175, Breeniome_173, Momo_171, McWolfish_169, Zeenon_172, Shelob_172, Loanshark_169, Ghost_171, Basquiat_170, Napoleon13_169, BackyardAgain_169, EmmaElysia_173, SmallFry_172, LolaVinca_172, Latch_172, Atlantean_171
- Track 3 : Catera_167, Kamryn_171, NoodleTree_178, Rizal_166, YemiJoy2021_171, Dandelion_178, Mikro_169, Mangeria_172, StephanieG_170, RoMag_167
- Track 4 : Salacia_173
- Track 5 : Blubba_76, Lukilu_78
- Track 6 : Bxz1_167
- Track 7 : Rabinovish_81
- Track 8 : Alice_148
- Track 9 : Zaria_110, Calm_111
- Track 10 : CicholasNage_103
- Track 11 : Crossroads_113, MkaliMitinis3_113
- Track 12 : Auspice_113
- Track 13 : Bricole_94, Glaske16_97, PegLeg_96
- Track 14 : LilhomieP_113, Skinny_118, Glaske16_116, PegLeg_117
- Track 15 : SlimJimmy_96
- Track 16 : Cosmo_101

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

The start number called the most often in the published annotations is 8, it was called in 82 of the 111 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Ading_173, Alice_148, Amataga_172, ArcherS7_173, Asterius_169, Astraea_167, Atlantean_171, Audrick_175, Babyland_175, BackyardAgain_169, BananaFence_170, Basquiat_170, Blackbrain_168, Bonray_173, Braelyn_163, Breeniome_173, Burrough_174, Cactojaque_168, Capablanca_175, Chargie21_170, ChaylaJr_169, ChickenPhender_169, Chomp_171, CindyLou_174, DTDevon_174, Darko_171, Delylah_172, Dietrick_162, Drazdys_172, EasyJones_175, EmToTheThree_173, EmmaElysia_173, ErnieJ_166, Flabslab_167, Fludd_173, Gabriel_174, Gamgam_173, Ghost_171, HyRo_161, InigoMontoya_175, Janiyra_176, Jessibeth14_171, Kboogie_175, Khaleesi_170, Latch_172, Lee7_170, LifeSavor_170, LinStu_169, Littleton_173, Loanshark_169, LolaVinca_172, Matsumoto_170, McGee_173, McWolfish_169, Melpomini_165, Momo_171, Naija_172, Napoleon13_169, Navo_159, Ngannou_169, Nidhogg_172, Patter_172, Persimmon_161, Phlegm_176, Phusco_171, Pio_179, Pivoine_172, Pleione_174, PurduePete_171, Quasimodo_175, Roots515_175, Sebata_172, Shelob_172, Shifa_162, Shrimp_174, SilverDipper_174, SmallFry_172, StubbySaigey_175, Tortoise16_170, Trinitium_170, Turret_167, ValleyTerrace_172, Wally_171, WhereRU_165, Yassified_168, Yucca_170, Zeenon_172,

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

- Bxz1_167,

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

- Auspice_113, Blubba_76, Bricole_94, Calm_111, Catera_167, CicholasNage_103, Cosmo_101, Crossroads_113, Dandelion_178, Glaske16_116, Glaske16_97, Kamryn_171, LilhomieP_113, Lukilu_78, Mangeria_172, Mikro_169, MkaliMitinis3_113, NoodleTree_178, PegLeg_117, PegLeg_96, Rabinovish_81, Rizal_166, RoMag_167, Salacia_173, Skinny_118, SlimJimmy_96, StephanieG_170, YemiJoy2021_171, Zaria_110,

Summary by start number:

Start 5:

- Found in 4 of 117 (3.4%) of genes in pham
- Manual Annotations of this start: 1 of 111
- Called 25.0% of time when present
- Phage (with cluster) where this start called: SlimJimmy_96 (M1),

Start 7:

- Found in 1 of 117 (0.9%) of genes in pham
- Manual Annotations of this start: 1 of 111
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Rabinovish_81 (C1),

Start 8:

- Found in 88 of 117 (75.2%) of genes in pham
- Manual Annotations of this start: 82 of 111
- Called 98.9% of time when present

- Phage (with cluster) where this start called: Ading_173 (C1), Alice_148 (C1), Amataga_172 (C1), ArcherS7_173 (C1), Asterius_169 (C1), Astraea_167 (C1), Atlantean_171 (C1), Audrick_175 (C1), Babyland_175 (C1), BackyardAgain_169 (C1), BananaFence_170 (C1), Basquiat_170 (C1), Blackbrain_168 (C1), Bonray_173 (C1), Braelyn_163 (BE1), Breeniome_173 (C1), Burrough_174 (C1), Cactojaque_168 (C1), Capablanca_175 (C1), Chargie21_170 (C1), ChaylaJr_169 (C1), ChickenPhender_169 (C1), Chomp_171 (C1), CindyLou_174 (C1), DTDevon_174 (C1), Darko_171 (C1), Delylah_172 (C1), Dietrick_162 (C1), Drazdys_172 (C1), EasyJones_175 (C1), EmToTheThree_173 (C1), EmmaElysia_173 (C1), ErnieJ_166 (C1), Flabslab_167 (C1), Fludd_173 (C1), Gabriel_174 (C1), Gamgam_173 (C1), Ghost_171 (C1), HyRo_161 (C1), InigoMontoya_175 (C1), Janiyra_176 (C1), Jessibeth14_171 (C1), Kboogie_175 (C1), Khaleesi_170 (C1), Latch_172 (C1), Lee7_170 (C1), LifeSavor_170 (C1), LinStu_169 (C1), Littleton_173 (C1), Loanshark_169 (C1), LolaVinca_172 (C1), Matsumoto_170 (C1), McGee_173 (C1), McWolfish_169 (C1), Melpomini_165 (C1), Momo_171 (C1), Naija_172 (C1), Napoleon13_169 (C1), Navo_159 (BE1), Ngannou_169 (C1), Nidhogg_172 (C1), Patter_172 (C1), Persimmon_161 (BE1), Phlegm_176 (C1), Phusco_171 (C1), Pio_179 (C1), Pivoine_172 (C1), Pleione_174 (C1), PurduePete_171 (C1), Quasimodo_175 (C1), Roots515_175 (C1), Sebata_172 (C1), Shelob_172 (C1), Shifa_162 (C1), Shrimp_174 (C1), SilverDipper_174 (C1), SmallFry_172 (C1), StubbySaigey_175 (C1), Tortoise16_170 (C1), Trinitium_170 (C1), Turret_167 (C1), ValleyTerrace_172 (C1), Wally_171 (C1), WhereRU_165 (BE1), Yassified_168 (C1), Yucca_170 (C1), Zeenon_172 (C1),

Start 11:

- Found in 1 of 117 (0.9%) of genes in pham
- Manual Annotations of this start: 1 of 111
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Cosmo_101 (V),

Start 12:

- Found in 105 of 117 (89.7%) of genes in pham
- Manual Annotations of this start: 16 of 111
- Called 16.2% of time when present
- Phage (with cluster) where this start called: Auspice_113 (M1), Blubba_76 (C1), Bricole_94 (M1), Bxz1_167 (C1), Catera_167 (C1), Dandelion_178 (C1), Glaske16_97 (M1), Kamryn_171 (C1), Lukilu_78 (C1), Mangeria_172 (C1), Mikro_169 (C1), NoodleTree_178 (C1), PegLeg_96 (M1), Rizal_166 (C1), RoMag_167 (C1), StephanieG_170 (C1), YemiJoy2021_171 (C1),

Start 13:

- Found in 5 of 117 (4.3%) of genes in pham
- Manual Annotations of this start: 5 of 111
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Calm_111 (L1), CicholasNage_103 (L1), Crossroads_113 (L2), MkaliMitinis3_113 (L2), Zaria_110 (L1),

Start 15:

- Found in 5 of 117 (4.3%) of genes in pham
- Manual Annotations of this start: 4 of 111
- Called 80.0% of time when present
- Phage (with cluster) where this start called: Glaske16_116 (M1), LilhomieP_113 (M1), PegLeg_117 (M1), Skinny_118 (M1),

Start 17:

- Found in 1 of 117 (0.9%) of genes in pham
- Manual Annotations of this start: 1 of 111
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Salacia_173 (C1),

Summary by clusters:

There are 6 clusters represented in this pham: V, M1, L1, L2, C1, BE1,

Info for manual annotations of cluster BE1:

- Start number 8 was manually annotated 3 times for cluster BE1.

Info for manual annotations of cluster C1:

- Start number 7 was manually annotated 1 time for cluster C1.
- Start number 8 was manually annotated 79 times for cluster C1.
- Start number 12 was manually annotated 12 times for cluster C1.
- Start number 17 was manually annotated 1 time for cluster C1.

Info for manual annotations of cluster L1:

- Start number 13 was manually annotated 3 times for cluster L1.

Info for manual annotations of cluster L2:

- Start number 13 was manually annotated 2 times for cluster L2.

Info for manual annotations of cluster M1:

- Start number 5 was manually annotated 1 time for cluster M1.
- Start number 12 was manually annotated 4 times for cluster M1.
- Start number 15 was manually annotated 4 times for cluster M1.

Info for manual annotations of cluster V:

- Start number 11 was manually annotated 1 time for cluster V.

Gene Information:

Gene: Ading_173 Start: 95509, Stop: 95883, Start Num: 8

Candidate Starts for Ading_173:

(Start: 8 @95509 has 82 MA's), (Start: 12 @95515 has 16 MA's), (57, 95869),

Gene: Alice_148 Start: 90900, Stop: 91289, Start Num: 8

Candidate Starts for Alice_148:

(Start: 8 @90900 has 82 MA's), (26, 90993), (27, 91002), (34, 91062), (48, 91200), (56, 91254),

Gene: Amataga_172 Start: 93925, Stop: 94299, Start Num: 8

Candidate Starts for Amataga_172:

(Start: 8 @93925 has 82 MA's), (Start: 12 @93931 has 16 MA's), (57, 94285),

Gene: ArcherS7_173 Start: 94955, Stop: 95329, Start Num: 8

Candidate Starts for ArcherS7_173:

(Start: 8 @94955 has 82 MA's), (Start: 12 @94961 has 16 MA's), (57, 95315),

Gene: Asterius_169 Start: 94642, Stop: 95016, Start Num: 8
Candidate Starts for Asterius_169:
(Start: 8 @94642 has 82 MA's), (Start: 12 @94648 has 16 MA's), (57, 95002),

Gene: Astraea_167 Start: 94016, Stop: 94390, Start Num: 8
Candidate Starts for Astraea_167:
(Start: 8 @94016 has 82 MA's), (Start: 12 @94022 has 16 MA's), (57, 94376),

Gene: Atlantean_171 Start: 93925, Stop: 94299, Start Num: 8
Candidate Starts for Atlantean_171:
(Start: 8 @93925 has 82 MA's), (Start: 12 @93931 has 16 MA's), (57, 94285),

Gene: Audrick_175 Start: 94607, Stop: 94981, Start Num: 8
Candidate Starts for Audrick_175:
(Start: 8 @94607 has 82 MA's), (Start: 12 @94613 has 16 MA's), (57, 94967),

Gene: Auspice_113 Start: 60196, Stop: 60597, Start Num: 12
Candidate Starts for Auspice_113:
(1, 60025), (2, 60058), (3, 60112), (4, 60136), (Start: 12 @60196 has 16 MA's), (Start: 15 @60217 has 4 MA's), (18, 60232), (19, 60244), (26, 60289), (29, 60316), (40, 60391), (46, 60466), (52, 60511), (59, 60565), (60, 60589),

Gene: Babyland_175 Start: 94702, Stop: 95076, Start Num: 8
Candidate Starts for Babyland_175:
(Start: 8 @94702 has 82 MA's), (Start: 12 @94708 has 16 MA's), (57, 95062),

Gene: BackyardAgain_169 Start: 93403, Stop: 93777, Start Num: 8
Candidate Starts for BackyardAgain_169:
(Start: 8 @93403 has 82 MA's), (Start: 12 @93409 has 16 MA's), (57, 93763),

Gene: BananaFence_170 Start: 94645, Stop: 95019, Start Num: 8
Candidate Starts for BananaFence_170:
(Start: 8 @94645 has 82 MA's), (Start: 12 @94651 has 16 MA's), (57, 95005),

Gene: Basquiat_170 Start: 94229, Stop: 94603, Start Num: 8
Candidate Starts for Basquiat_170:
(Start: 8 @94229 has 82 MA's), (Start: 12 @94235 has 16 MA's), (57, 94589),

Gene: Blackbrain_168 Start: 94274, Stop: 94648, Start Num: 8
Candidate Starts for Blackbrain_168:
(Start: 8 @94274 has 82 MA's), (Start: 12 @94280 has 16 MA's), (57, 94634),

Gene: Blubba_76 Start: 28848, Stop: 28441, Start Num: 12
Candidate Starts for Blubba_76:
(Start: 12 @28848 has 16 MA's), (19, 28800), (25, 28758), (41, 28638), (44, 28596), (47, 28572),

Gene: Bonray_173 Start: 95779, Stop: 96153, Start Num: 8
Candidate Starts for Bonray_173:
(Start: 8 @95779 has 82 MA's), (Start: 12 @95785 has 16 MA's), (57, 96139),

Gene: Braelyn_163 Start: 91668, Stop: 92042, Start Num: 8
Candidate Starts for Braelyn_163:

(Start: 8 @91668 has 82 MA's), (14, 91695), (16, 91707), (30, 91809), (33, 91827), (36, 91851), (54, 92019),

Gene: Breeniome_173 Start: 93968, Stop: 94342, Start Num: 8

Candidate Starts for Breeniome_173:

(Start: 8 @93968 has 82 MA's), (Start: 12 @93974 has 16 MA's), (57, 94328),

Gene: Bricole_94 Start: 56369, Stop: 56746, Start Num: 12

Candidate Starts for Bricole_94:

(Start: 5 @56309 has 1 MA's), (Start: 12 @56369 has 16 MA's), (31, 56507), (34, 56513), (39, 56555), (41, 56576), (49, 56666), (55, 56705),

Gene: Burrough_174 Start: 96182, Stop: 96556, Start Num: 8

Candidate Starts for Burrough_174:

(Start: 8 @96182 has 82 MA's), (Start: 12 @96188 has 16 MA's), (57, 96542),

Gene: Bxz1_167 Start: 97386, Stop: 97754, Start Num: 12

Candidate Starts for Bxz1_167:

(Start: 8 @97380 has 82 MA's), (Start: 12 @97386 has 16 MA's), (57, 97740),

Gene: Cactojaque_168 Start: 94249, Stop: 94623, Start Num: 8

Candidate Starts for Cactojaque_168:

(Start: 8 @94249 has 82 MA's), (Start: 12 @94255 has 16 MA's), (57, 94609),

Gene: Calm_111 Start: 62392, Stop: 62778, Start Num: 13

Candidate Starts for Calm_111:

(Start: 13 @62392 has 5 MA's), (20, 62440), (22, 62452), (23, 62458), (25, 62476), (37, 62575), (54, 62725),

Gene: Capablanca_175 Start: 96374, Stop: 96748, Start Num: 8

Candidate Starts for Capablanca_175:

(Start: 8 @96374 has 82 MA's), (Start: 12 @96380 has 16 MA's), (57, 96734),

Gene: Catera_167 Start: 93327, Stop: 93818, Start Num: 12

Candidate Starts for Catera_167:

(Start: 12 @93327 has 16 MA's), (32, 93474), (34, 93489), (50, 93648), (51, 93651), (58, 93723), (61, 93762),

Gene: Chargie21_170 Start: 94229, Stop: 94603, Start Num: 8

Candidate Starts for Chargie21_170:

(Start: 8 @94229 has 82 MA's), (Start: 12 @94235 has 16 MA's), (57, 94589),

Gene: ChaylaJr_169 Start: 94097, Stop: 94471, Start Num: 8

Candidate Starts for ChaylaJr_169:

(Start: 8 @94097 has 82 MA's), (Start: 12 @94103 has 16 MA's), (57, 94457),

Gene: ChickenPhender_169 Start: 94376, Stop: 94750, Start Num: 8

Candidate Starts for ChickenPhender_169:

(Start: 8 @94376 has 82 MA's), (Start: 12 @94382 has 16 MA's), (57, 94736),

Gene: Chomp_171 Start: 95214, Stop: 95588, Start Num: 8

Candidate Starts for Chomp_171:

(Start: 8 @95214 has 82 MA's), (Start: 12 @95220 has 16 MA's), (57, 95574),

Gene: CicholasNage_103 Start: 61458, Stop: 61826, Start Num: 13
Candidate Starts for CicholasNage_103:
(6, 61410), (9, 61437), (Start: 13 @61458 has 5 MA's), (23, 61524), (35, 61611), (37, 61641), (40, 61653), (53, 61776),

Gene: CindyLou_174 Start: 95957, Stop: 96331, Start Num: 8
Candidate Starts for CindyLou_174:
(Start: 8 @95957 has 82 MA's), (Start: 12 @95963 has 16 MA's), (57, 96317),

Gene: Cosmo_101 Start: 58504, Stop: 58896, Start Num: 11
Candidate Starts for Cosmo_101:
(Start: 11 @58504 has 1 MA's), (21, 58573), (22, 58576), (24, 58585), (26, 58603), (28, 58615), (36, 58684), (38, 58699), (39, 58705), (45, 58777),

Gene: Crossroads_113 Start: 63942, Stop: 64328, Start Num: 13
Candidate Starts for Crossroads_113:
(9, 63921), (Start: 13 @63942 has 5 MA's), (23, 64008), (25, 64026), (37, 64125), (54, 64275),

Gene: DTDevon_174 Start: 96449, Stop: 96823, Start Num: 8
Candidate Starts for DTDevon_174:
(Start: 8 @96449 has 82 MA's), (Start: 12 @96455 has 16 MA's), (57, 96809),

Gene: Dandelion_178 Start: 98582, Stop: 99073, Start Num: 12
Candidate Starts for Dandelion_178:
(Start: 12 @98582 has 16 MA's), (32, 98729), (34, 98744), (50, 98903), (51, 98906), (58, 98978), (61, 99017),

Gene: Darko_171 Start: 94649, Stop: 95023, Start Num: 8
Candidate Starts for Darko_171:
(Start: 8 @94649 has 82 MA's), (Start: 12 @94655 has 16 MA's), (57, 95009),

Gene: Delylah_172 Start: 94774, Stop: 95148, Start Num: 8
Candidate Starts for Delylah_172:
(Start: 8 @94774 has 82 MA's), (Start: 12 @94780 has 16 MA's), (57, 95134),

Gene: Dietrick_162 Start: 93399, Stop: 93773, Start Num: 8
Candidate Starts for Dietrick_162:
(Start: 8 @93399 has 82 MA's), (Start: 12 @93405 has 16 MA's), (57, 93759),

Gene: Drazdys_172 Start: 94992, Stop: 95366, Start Num: 8
Candidate Starts for Drazdys_172:
(Start: 8 @94992 has 82 MA's), (Start: 12 @94998 has 16 MA's), (57, 95352),

Gene: EasyJones_175 Start: 94911, Stop: 95285, Start Num: 8
Candidate Starts for EasyJones_175:
(Start: 8 @94911 has 82 MA's), (Start: 12 @94917 has 16 MA's), (57, 95271),

Gene: EmToTheThree_173 Start: 95871, Stop: 96245, Start Num: 8
Candidate Starts for EmToTheThree_173:
(Start: 8 @95871 has 82 MA's), (Start: 12 @95877 has 16 MA's), (57, 96231),

Gene: EmmaElysia_173 Start: 94922, Stop: 95296, Start Num: 8

Candidate Starts for EmmaElysia_173:
(Start: 8 @94922 has 82 MA's), (Start: 12 @94928 has 16 MA's), (57, 95282),

Gene: ErnieJ_166 Start: 93651, Stop: 94025, Start Num: 8
Candidate Starts for ErnieJ_166:
(Start: 8 @93651 has 82 MA's), (Start: 12 @93657 has 16 MA's), (57, 94011),

Gene: Flabslab_167 Start: 93233, Stop: 93607, Start Num: 8
Candidate Starts for Flabslab_167:
(Start: 8 @93233 has 82 MA's), (Start: 12 @93239 has 16 MA's), (57, 93593),

Gene: Fludd_173 Start: 95184, Stop: 95558, Start Num: 8
Candidate Starts for Fludd_173:
(Start: 8 @95184 has 82 MA's), (Start: 12 @95190 has 16 MA's), (57, 95544),

Gene: Gabriel_174 Start: 93942, Stop: 94316, Start Num: 8
Candidate Starts for Gabriel_174:
(Start: 8 @93942 has 82 MA's), (Start: 12 @93948 has 16 MA's), (57, 94302),

Gene: Gamgam_173 Start: 93915, Stop: 94289, Start Num: 8
Candidate Starts for Gamgam_173:
(Start: 8 @93915 has 82 MA's), (Start: 12 @93921 has 16 MA's), (57, 94275),

Gene: Ghost_171 Start: 94628, Stop: 95002, Start Num: 8
Candidate Starts for Ghost_171:
(Start: 8 @94628 has 82 MA's), (Start: 12 @94634 has 16 MA's), (57, 94988),

Gene: Glaske16_97 Start: 56773, Stop: 57150, Start Num: 12
Candidate Starts for Glaske16_97:
(Start: 5 @56713 has 1 MA's), (Start: 12 @56773 has 16 MA's), (31, 56911), (34, 56917), (39, 56959),
(41, 56980), (49, 57070), (55, 57109),

Gene: Glaske16_116 Start: 60940, Stop: 61320, Start Num: 15
Candidate Starts for Glaske16_116:
(1, 60748), (2, 60781), (3, 60835), (4, 60859), (Start: 12 @60919 has 16 MA's), (Start: 15 @60940 has
4 MA's), (18, 60955), (19, 60967), (26, 61012), (29, 61039), (40, 61114), (46, 61189), (52, 61234), (59,
61288), (60, 61312),

Gene: HyRo_161 Start: 94254, Stop: 94628, Start Num: 8
Candidate Starts for HyRo_161:
(Start: 8 @94254 has 82 MA's), (Start: 12 @94260 has 16 MA's), (57, 94614),

Gene: InigoMontoya_175 Start: 94589, Stop: 94963, Start Num: 8
Candidate Starts for InigoMontoya_175:
(Start: 8 @94589 has 82 MA's), (Start: 12 @94595 has 16 MA's), (57, 94949),

Gene: Janiyra_176 Start: 95606, Stop: 95980, Start Num: 8
Candidate Starts for Janiyra_176:
(Start: 8 @95606 has 82 MA's), (Start: 12 @95612 has 16 MA's), (57, 95966),

Gene: Jessibeth14_171 Start: 95454, Stop: 95828, Start Num: 8
Candidate Starts for Jessibeth14_171:
(Start: 8 @95454 has 82 MA's), (Start: 12 @95460 has 16 MA's), (57, 95814),

Gene: Kamryn_171 Start: 95693, Stop: 96184, Start Num: 12

Candidate Starts for Kamryn_171:

(Start: 12 @95693 has 16 MA's), (32, 95840), (34, 95855), (50, 96014), (51, 96017), (58, 96089), (61, 96128),

Gene: Kboogie_175 Start: 94611, Stop: 94985, Start Num: 8

Candidate Starts for Kboogie_175:

(Start: 8 @94611 has 82 MA's), (Start: 12 @94617 has 16 MA's), (57, 94971),

Gene: Khaleesi_170 Start: 94921, Stop: 95295, Start Num: 8

Candidate Starts for Khaleesi_170:

(Start: 8 @94921 has 82 MA's), (Start: 12 @94927 has 16 MA's), (57, 95281),

Gene: Latch_172 Start: 93925, Stop: 94299, Start Num: 8

Candidate Starts for Latch_172:

(Start: 8 @93925 has 82 MA's), (Start: 12 @93931 has 16 MA's), (57, 94285),

Gene: Lee7_170 Start: 96301, Stop: 96675, Start Num: 8

Candidate Starts for Lee7_170:

(Start: 8 @96301 has 82 MA's), (Start: 12 @96307 has 16 MA's), (57, 96661),

Gene: LifeSavor_170 Start: 94834, Stop: 95208, Start Num: 8

Candidate Starts for LifeSavor_170:

(Start: 8 @94834 has 82 MA's), (Start: 12 @94840 has 16 MA's), (57, 95194),

Gene: LilhomieP_113 Start: 61111, Stop: 61491, Start Num: 15

Candidate Starts for LilhomieP_113:

(1, 60919), (2, 60952), (3, 61006), (4, 61030), (Start: 12 @61090 has 16 MA's), (Start: 15 @61111 has 4 MA's), (18, 61126), (19, 61138), (26, 61183), (29, 61210), (40, 61285), (46, 61360), (52, 61405), (59, 61459), (60, 61483),

Gene: LinStu_169 Start: 94979, Stop: 95353, Start Num: 8

Candidate Starts for LinStu_169:

(Start: 8 @94979 has 82 MA's), (Start: 12 @94985 has 16 MA's), (57, 95339),

Gene: Littleton_173 Start: 95085, Stop: 95459, Start Num: 8

Candidate Starts for Littleton_173:

(Start: 8 @95085 has 82 MA's), (Start: 12 @95091 has 16 MA's), (57, 95445),

Gene: Loanshark_169 Start: 94795, Stop: 95169, Start Num: 8

Candidate Starts for Loanshark_169:

(Start: 8 @94795 has 82 MA's), (Start: 12 @94801 has 16 MA's), (57, 95155),

Gene: LolaVinca_172 Start: 96204, Stop: 96578, Start Num: 8

Candidate Starts for LolaVinca_172:

(Start: 8 @96204 has 82 MA's), (Start: 12 @96210 has 16 MA's), (57, 96564),

Gene: Lukilu_78 Start: 31246, Stop: 30839, Start Num: 12

Candidate Starts for Lukilu_78:

(Start: 12 @31246 has 16 MA's), (19, 31198), (25, 31156), (41, 31036), (44, 30994), (47, 30970),

Gene: Mangeria_172 Start: 95675, Stop: 96166, Start Num: 12

Candidate Starts for Mangeria_172:

(Start: 12 @95675 has 16 MA's), (32, 95822), (34, 95837), (50, 95996), (51, 95999), (58, 96071), (61, 96110),

Gene: Matsumoto_170 Start: 94599, Stop: 94973, Start Num: 8

Candidate Starts for Matsumoto_170:

(Start: 8 @94599 has 82 MA's), (Start: 12 @94605 has 16 MA's), (57, 94959),

Gene: McGee_173 Start: 94353, Stop: 94727, Start Num: 8

Candidate Starts for McGee_173:

(Start: 8 @94353 has 82 MA's), (Start: 12 @94359 has 16 MA's), (57, 94713),

Gene: McWolfish_169 Start: 94692, Stop: 95066, Start Num: 8

Candidate Starts for McWolfish_169:

(Start: 8 @94692 has 82 MA's), (Start: 12 @94698 has 16 MA's), (57, 95052),

Gene: Melpomini_165 Start: 92899, Stop: 93273, Start Num: 8

Candidate Starts for Melpomini_165:

(Start: 8 @92899 has 82 MA's), (Start: 12 @92905 has 16 MA's), (57, 93259),

Gene: Mikro_169 Start: 96317, Stop: 96808, Start Num: 12

Candidate Starts for Mikro_169:

(Start: 12 @96317 has 16 MA's), (32, 96464), (34, 96479), (50, 96638), (51, 96641), (58, 96713), (61, 96752),

Gene: MkaliMitinis3_113 Start: 63922, Stop: 64308, Start Num: 13

Candidate Starts for MkaliMitinis3_113:

(9, 63901), (Start: 13 @63922 has 5 MA's), (23, 63988), (25, 64006), (37, 64105), (54, 64255),

Gene: Momo_171 Start: 93925, Stop: 94299, Start Num: 8

Candidate Starts for Momo_171:

(Start: 8 @93925 has 82 MA's), (Start: 12 @93931 has 16 MA's), (57, 94285),

Gene: Naija_172 Start: 94628, Stop: 95002, Start Num: 8

Candidate Starts for Naija_172:

(Start: 8 @94628 has 82 MA's), (Start: 12 @94634 has 16 MA's), (57, 94988),

Gene: Napoleon13_169 Start: 93888, Stop: 94262, Start Num: 8

Candidate Starts for Napoleon13_169:

(Start: 8 @93888 has 82 MA's), (Start: 12 @93894 has 16 MA's), (57, 94248),

Gene: Navo_159 Start: 91049, Stop: 91423, Start Num: 8

Candidate Starts for Navo_159:

(Start: 8 @91049 has 82 MA's), (14, 91076), (16, 91088), (30, 91190), (33, 91208), (36, 91232), (54, 91400),

Gene: Ngannou_169 Start: 92907, Stop: 93281, Start Num: 8

Candidate Starts for Ngannou_169:

(Start: 8 @92907 has 82 MA's), (Start: 12 @92913 has 16 MA's), (57, 93267),

Gene: Nidhogg_172 Start: 95203, Stop: 95577, Start Num: 8

Candidate Starts for Nidhogg_172:

(Start: 8 @95203 has 82 MA's), (Start: 12 @95209 has 16 MA's), (57, 95563),

Gene: NoodleTree_178 Start: 95068, Stop: 95559, Start Num: 12

Candidate Starts for NoodleTree_178:

(Start: 12 @95068 has 16 MA's), (32, 95215), (34, 95230), (50, 95389), (51, 95392), (58, 95464), (61, 95503),

Gene: Patter_172 Start: 93942, Stop: 94316, Start Num: 8

Candidate Starts for Patter_172:

(Start: 8 @93942 has 82 MA's), (Start: 12 @93948 has 16 MA's), (57, 94302),

Gene: PegLeg_117 Start: 60989, Stop: 61369, Start Num: 15

Candidate Starts for PegLeg_117:

(1, 60797), (2, 60830), (3, 60884), (4, 60908), (Start: 12 @60968 has 16 MA's), (Start: 15 @60989 has 4 MA's), (18, 61004), (19, 61016), (26, 61061), (29, 61088), (40, 61163), (46, 61238), (52, 61283), (59, 61337), (60, 61361),

Gene: PegLeg_96 Start: 56344, Stop: 56721, Start Num: 12

Candidate Starts for PegLeg_96:

(Start: 5 @56284 has 1 MA's), (Start: 12 @56344 has 16 MA's), (31, 56482), (34, 56488), (39, 56530), (41, 56551), (49, 56641), (55, 56680),

Gene: Persimmon_161 Start: 90365, Stop: 90739, Start Num: 8

Candidate Starts for Persimmon_161:

(Start: 8 @90365 has 82 MA's), (14, 90392), (16, 90404), (30, 90506), (33, 90524), (36, 90548), (54, 90716),

Gene: Phlegm_176 Start: 94628, Stop: 95002, Start Num: 8

Candidate Starts for Phlegm_176:

(Start: 8 @94628 has 82 MA's), (Start: 12 @94634 has 16 MA's), (57, 94988),

Gene: Phusco_171 Start: 94252, Stop: 94626, Start Num: 8

Candidate Starts for Phusco_171:

(Start: 8 @94252 has 82 MA's), (Start: 12 @94258 has 16 MA's), (57, 94612),

Gene: Pio_179 Start: 98036, Stop: 98410, Start Num: 8

Candidate Starts for Pio_179:

(Start: 8 @98036 has 82 MA's), (Start: 12 @98042 has 16 MA's), (57, 98396),

Gene: Pivoine_172 Start: 94628, Stop: 95002, Start Num: 8

Candidate Starts for Pivoine_172:

(Start: 8 @94628 has 82 MA's), (Start: 12 @94634 has 16 MA's), (57, 94988),

Gene: Pleione_174 Start: 95152, Stop: 95526, Start Num: 8

Candidate Starts for Pleione_174:

(Start: 8 @95152 has 82 MA's), (Start: 12 @95158 has 16 MA's), (57, 95512),

Gene: PurduePete_171 Start: 95379, Stop: 95753, Start Num: 8

Candidate Starts for PurduePete_171:

(Start: 8 @95379 has 82 MA's), (Start: 12 @95385 has 16 MA's), (57, 95739),

Gene: Quasimodo_175 Start: 96046, Stop: 96420, Start Num: 8

Candidate Starts for Quasimodo_175:

(Start: 8 @96046 has 82 MA's), (Start: 12 @96052 has 16 MA's), (57, 96406),

Gene: Rabinovish_81 Start: 31385, Stop: 31834, Start Num: 7
Candidate Starts for Rabinovish_81:
(Start: 7 @31385 has 1 MA's), (10, 31412), (Start: 12 @31421 has 16 MA's), (40, 31616), (42, 31652),
(43, 31655), (44, 31673), (47, 31694), (50, 31721),

Gene: Rizal_166 Start: 93071, Stop: 93562, Start Num: 12
Candidate Starts for Rizal_166:
(Start: 12 @93071 has 16 MA's), (32, 93218), (34, 93233), (50, 93392), (51, 93395), (58, 93467), (61,
93506),

Gene: RoMag_167 Start: 95115, Stop: 95606, Start Num: 12
Candidate Starts for RoMag_167:
(Start: 12 @95115 has 16 MA's), (32, 95262), (34, 95277), (50, 95436), (51, 95439), (58, 95511), (61,
95550),

Gene: Roots515_175 Start: 96466, Stop: 96840, Start Num: 8
Candidate Starts for Roots515_175:
(Start: 8 @96466 has 82 MA's), (Start: 12 @96472 has 16 MA's), (57, 96826),

Gene: Salacia_173 Start: 95279, Stop: 95626, Start Num: 17
Candidate Starts for Salacia_173:
(Start: 17 @95279 has 1 MA's), (57, 95612),

Gene: Sebata_172 Start: 96156, Stop: 96530, Start Num: 8
Candidate Starts for Sebata_172:
(Start: 8 @96156 has 82 MA's), (Start: 12 @96162 has 16 MA's), (57, 96516),

Gene: Shelob_172 Start: 96186, Stop: 96560, Start Num: 8
Candidate Starts for Shelob_172:
(Start: 8 @96186 has 82 MA's), (Start: 12 @96192 has 16 MA's), (57, 96546),

Gene: Shifa_162 Start: 94223, Stop: 94597, Start Num: 8
Candidate Starts for Shifa_162:
(Start: 8 @94223 has 82 MA's), (Start: 12 @94229 has 16 MA's), (57, 94583),

Gene: Shrimp_174 Start: 95689, Stop: 96063, Start Num: 8
Candidate Starts for Shrimp_174:
(Start: 8 @95689 has 82 MA's), (Start: 12 @95695 has 16 MA's), (57, 96049),

Gene: SilverDipper_174 Start: 94624, Stop: 94998, Start Num: 8
Candidate Starts for SilverDipper_174:
(Start: 8 @94624 has 82 MA's), (Start: 12 @94630 has 16 MA's), (57, 94984),

Gene: Skinny_118 Start: 61708, Stop: 62088, Start Num: 15
Candidate Starts for Skinny_118:
(1, 61516), (2, 61549), (3, 61603), (4, 61627), (Start: 12 @61687 has 16 MA's), (Start: 15 @61708 has
4 MA's), (18, 61723), (19, 61735), (26, 61780), (29, 61807), (40, 61882), (46, 61957), (52, 62002), (59,
62056), (60, 62080),

Gene: SlimJimmy_96 Start: 57692, Stop: 58129, Start Num: 5
Candidate Starts for SlimJimmy_96:

(Start: 5 @57692 has 1 MA's), (Start: 12 @57752 has 16 MA's), (31, 57890), (34, 57896), (39, 57938), (41, 57959), (49, 58049), (55, 58088),

Gene: SmallFry_172 Start: 94215, Stop: 94589, Start Num: 8

Candidate Starts for SmallFry_172:

(Start: 8 @94215 has 82 MA's), (Start: 12 @94221 has 16 MA's), (57, 94575),

Gene: StephanieG_170 Start: 95942, Stop: 96433, Start Num: 12

Candidate Starts for StephanieG_170:

(Start: 12 @95942 has 16 MA's), (32, 96089), (34, 96104), (50, 96263), (51, 96266), (58, 96338), (61, 96377),

Gene: StubbySaigey_175 Start: 94158, Stop: 94532, Start Num: 8

Candidate Starts for StubbySaigey_175:

(Start: 8 @94158 has 82 MA's), (Start: 12 @94164 has 16 MA's), (57, 94518),

Gene: Tortoise16_170 Start: 94858, Stop: 95232, Start Num: 8

Candidate Starts for Tortoise16_170:

(Start: 8 @94858 has 82 MA's), (Start: 12 @94864 has 16 MA's), (57, 95218),

Gene: Trinitium_170 Start: 94551, Stop: 94925, Start Num: 8

Candidate Starts for Trinitium_170:

(Start: 8 @94551 has 82 MA's), (Start: 12 @94557 has 16 MA's), (57, 94911),

Gene: Turret_167 Start: 94133, Stop: 94507, Start Num: 8

Candidate Starts for Turret_167:

(Start: 8 @94133 has 82 MA's), (Start: 12 @94139 has 16 MA's), (57, 94493),

Gene: ValleyTerrace_172 Start: 93925, Stop: 94299, Start Num: 8

Candidate Starts for ValleyTerrace_172:

(Start: 8 @93925 has 82 MA's), (Start: 12 @93931 has 16 MA's), (57, 94285),

Gene: Wally_171 Start: 94141, Stop: 94515, Start Num: 8

Candidate Starts for Wally_171:

(Start: 8 @94141 has 82 MA's), (Start: 12 @94147 has 16 MA's), (57, 94501),

Gene: WhereRU_165 Start: 91117, Stop: 91491, Start Num: 8

Candidate Starts for WhereRU_165:

(Start: 8 @91117 has 82 MA's), (14, 91144), (16, 91156), (30, 91258), (33, 91276), (36, 91300), (54, 91468),

Gene: Yassified_168 Start: 93839, Stop: 94213, Start Num: 8

Candidate Starts for Yassified_168:

(Start: 8 @93839 has 82 MA's), (Start: 12 @93845 has 16 MA's), (57, 94199),

Gene: YemiJoy2021_171 Start: 95286, Stop: 95777, Start Num: 12

Candidate Starts for YemiJoy2021_171:

(Start: 12 @95286 has 16 MA's), (32, 95433), (34, 95448), (50, 95607), (51, 95610), (58, 95682), (61, 95721),

Gene: Yucca_170 Start: 94885, Stop: 95259, Start Num: 8

Candidate Starts for Yucca_170:

(Start: 8 @94885 has 82 MA's), (Start: 12 @94891 has 16 MA's), (57, 95245),

Gene: Zaria_110 Start: 61857, Stop: 62243, Start Num: 13

Candidate Starts for Zaria_110:

(Start: 13 @61857 has 5 MA's), (20, 61905), (22, 61917), (23, 61923), (25, 61941), (37, 62040), (54, 62190),

Gene: Zeenon_172 Start: 94971, Stop: 95345, Start Num: 8

Candidate Starts for Zeenon_172:

(Start: 8 @94971 has 82 MA's), (Start: 12 @94977 has 16 MA's), (57, 95331),