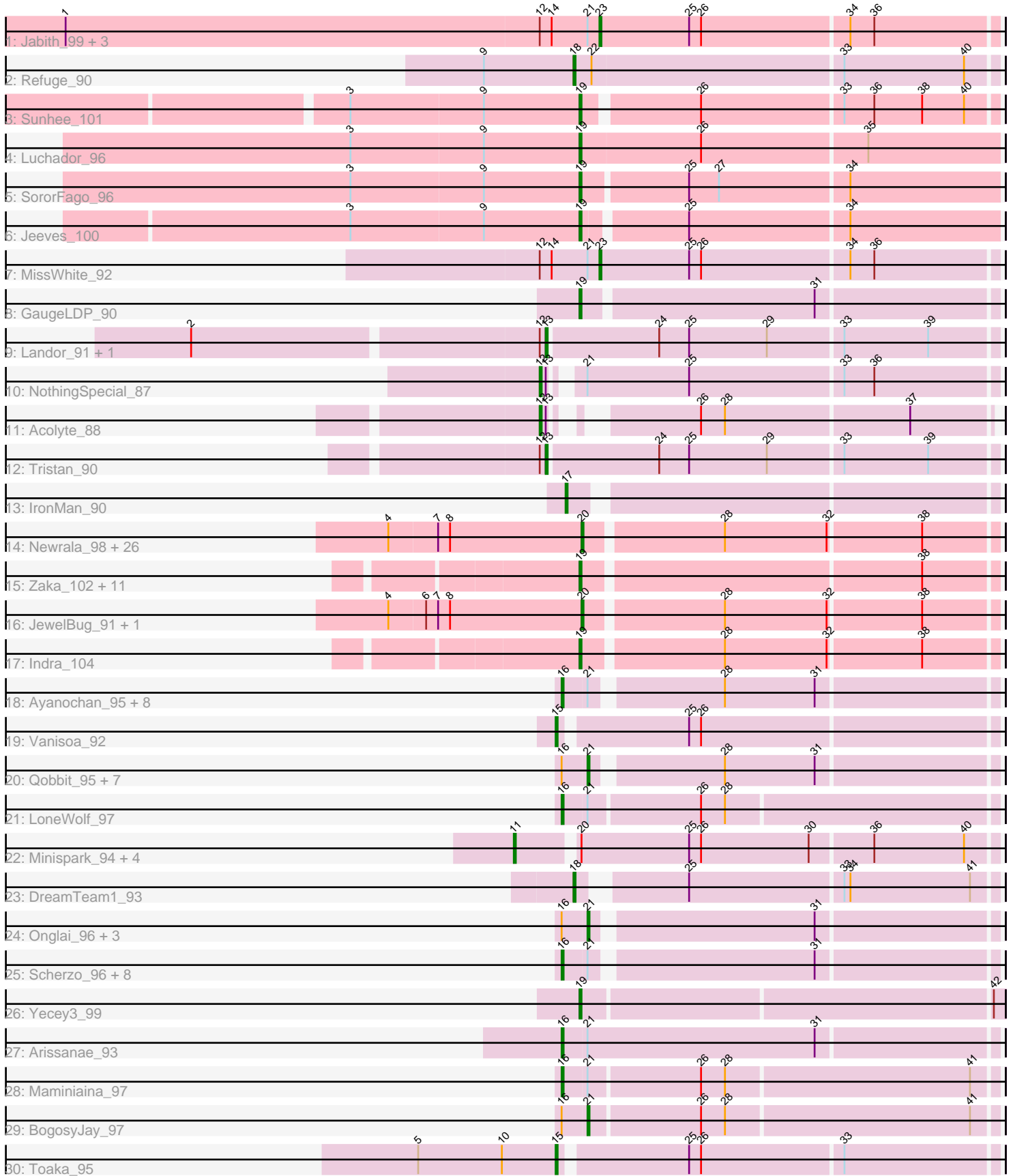


Pham 311422



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 311422 Report

This analysis was run 06/27/26 on database version 652.

Pham number 311422 has 102 members, 16 are drafts.

Phages represented in each track:

- Track 1 : Jabith_99, Salz_95, Et2Brutus_99, Hutc2_96
- Track 2 : Refuge_90
- Track 3 : Sunhee_101
- Track 4 : Luchador_96
- Track 5 : SororFago_96
- Track 6 : Jeeves_100
- Track 7 : MissWhite_92
- Track 8 : GaugeLDP_90
- Track 9 : Landor_91, Bactobuster_86
- Track 10 : NothingSpecial_87
- Track 11 : Acolyte_88
- Track 12 : Tristan_90
- Track 13 : IronMan_90
- Track 14 : Newrala_98, VohminGhazi_99, Kazan_100, EricB_97, DaVinci_97, Chartreuse_98, Roksolana_102, DelvinSonDorr_95, Hexamo_101, Helmet_104, Dorothea_99, Candra_97, Hoot_94, BABullseye_92, Jeffabunny_90, SuperAwesome_99, Jordennis_97, GreedyLawyer_89, Artemis2UCLA_101, SmellyB_99, Isiphiwo_96, Kipper29_99, BennyP_101, Priamo_99, Pmask_98, CloudWang3_102, McFly_99
- Track 15 : Zaka_102, Yokurt_101, Garak_103, Zulu_103, Lilbunny_98, Wiks_101, ToneTone_98, WunderPhul_90, Tucker_102, Blue7_103, Temprado_103, BlessJoy_102
- Track 16 : JewelBug_91, Polyphemus_92
- Track 17 : Indra_104
- Track 18 : Ayanochan_95, Alma_95, Catalina_100, Fayely_95, Priya_95, Conquerage_95, ExplosioNervosa_95, Spouty_95, Eidsmoe_95
- Track 19 : Vanisoa_92
- Track 20 : Qobbit_95, Aliter_91, HortumSL17_99, Tubs_98, EmyBug_94, Phaeder_98, Myxus_98, PackMan_93
- Track 21 : LoneWolf_97
- Track 22 : Minispark_94, Rahalelujah_96, CogOmlette_94, WorldCup_95, Bellris_94
- Track 23 : DreamTeam1_93
- Track 24 : Onglai_96, Beemo_98, Lilleskat_95, Holec_97
- Track 25 : Scherzo_96, Phonnegut_98, Sachima_94, Pioneer_98, Jiawan_96, Hanray_96, Ugenie5_85, EdogawaKiddo_97, RyeScarlet_99
- Track 26 : Yecey3_99
- Track 27 : Arissanae_93

- Track 28 : Maminaiaina_97
- Track 29 : BogosyJay_97
- Track 30 : Toaka_95

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

The start number called the most often in the published annotations is 20, it was called in 27 of the 86 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Artemis2UCLA_101, BABullseye_92, BennyP_101, Candra_97, Chartreuse_98, CloudWang3_102, DaVinci_97, DelvinSonDorr_95, Dorothea_99, EricB_97, GreedyLawyer_89, Helmet_104, Hexamo_101, Hoot_94, Isiphiwo_96, Jeffabunny_90, JewelBug_91, Jordennis_97, Kazan_100, Kipper29_99, McFly_99, Newrala_98, Pmask_98, Polyphemus_92, Priamo_99, Roksolana_102, SmellyB_99, SuperAwesome_99, VohminGhazi_99,

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

- Bellris_94, CogOmlette_94, Minispark_94, Rahalelujah_96, WorldCup_95,

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

- Acolyte_88, Aliter_91, Alma_95, Arissanae_93, Ayanochan_95, Bactobuster_86, Beemo_98, BlessJoy_102, Blue7_103, BogosyJay_97, Catalina_100, Conquerage_95, DreamTeam1_93, EdogawaKiddo_97, Eidsmoe_95, EmyBug_94, Et2Brutus_99, ExplosioNervosa_95, Fayely_95, Garak_103, GaugeLDP_90, Hanray_96, Halex_97, HortumSL17_99, Hutc2_96, Indra_104, IronMan_90, Jabith_99, Jeeves_100, Jiawan_96, Landor_91, Lilbunny_98, Lilleskat_95, LoneWolf_97, Luchador_96, Maminaiaina_97, MissWhite_92, Myxus_98, NothingSpecial_87, Onglai_96, PackMan_93, Phaeder_98, Phonnegut_98, Pioneer_98, Priya_95, Qobbit_95, Refuge_90, RyeScarlet_99, Sachima_94, Salz_95, Scherzo_96, SororFago_96, Spouty_95, Sunhee_101, Temprado_103, Toaka_95, ToneTone_98, Tristan_90, Tubs_98, Tucker_102, Ugenie5_85, Vanisoa_92, Wiks_101, WunderPhul_90, Yecy3_99, Yokurt_101, Zaka_102, Zulu_103,

Summary by start number:

Start 11:

- Found in 5 of 102 (4.9%) of genes in pham
- Manual Annotations of this start: 1 of 86
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Bellris_94 (A9), CogOmlette_94 (A9), Minispark_94 (A9), Rahalelujah_96 (A9), WorldCup_95 (A9),

Start 12:

- Found in 10 of 102 (9.8%) of genes in pham
- Manual Annotations of this start: 2 of 86
- Called 20.0% of time when present
- Phage (with cluster) where this start called: Acolyte_88 (A2), NothingSpecial_87 (A2),

Start 13:

- Found in 5 of 102 (4.9%) of genes in pham
- Manual Annotations of this start: 3 of 86
- Called 60.0% of time when present
- Phage (with cluster) where this start called: Bactobuster_86 (A2), Landor_91 (A2), Tristan_90 (A2),

Start 15:

- Found in 2 of 102 (2.0%) of genes in pham
- Manual Annotations of this start: 2 of 86
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Toaka_95 (A9), Vanisoa_92 (A9),

Start 16:

- Found in 34 of 102 (33.3%) of genes in pham
- Manual Annotations of this start: 15 of 86
- Called 61.8% of time when present
- Phage (with cluster) where this start called: Alma_95 (A9), Arissanae_93 (A9), Ayanochan_95 (A9), Catalina_100 (A9), Conquerage_95 (A9), EdogawaKiddo_97 (A9), Eidsmoe_95 (A9), ExplosioNervosa_95 (A9), Fayely_95 (A9), Hanray_96 (A9), Jiawan_96 (A9), LoneWolf_97 (A9), Maminaiaina_97 (A9), Phonnegut_98 (A9), Pioneer_98 (A9), Priya_95 (A9), RyeScarlet_99 (A9), Sachima_94 (A9), Scherzo_96 (A9), Spouty_95 (A9), Ugenie5_85 (A9),

Start 17:

- Found in 1 of 102 (1.0%) of genes in pham
- Manual Annotations of this start: 1 of 86
- Called 100.0% of time when present
- Phage (with cluster) where this start called: IronMan_90 (A2),

Start 18:

- Found in 2 of 102 (2.0%) of genes in pham
- Manual Annotations of this start: 2 of 86
- Called 100.0% of time when present
- Phage (with cluster) where this start called: DreamTeam1_93 (A9), Refuge_90 (A12),

Start 19:

- Found in 19 of 102 (18.6%) of genes in pham
- Manual Annotations of this start: 18 of 86
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BlessJoy_102 (A6), Blue7_103 (A6), Garak_103 (A6), GaugeLDP_90 (A2), Indra_104 (A6), Jeeves_100 (A14), Lilbunny_98 (A6), Luchador_96 (A14), SororFago_96 (A14), Sunhee_101 (A14), Temprado_103 (A6), ToneTone_98 (A6), Tucker_102 (A6), Wiks_101 (A6), WunderPhul_90 (A6), Yecey3_99 (A9), Yokurt_101 (A6), Zaka_102 (A6), Zulu_103 (A6),

Start 20:

- Found in 34 of 102 (33.3%) of genes in pham
- Manual Annotations of this start: 27 of 86
- Called 85.3% of time when present

- Phage (with cluster) where this start called: Artemis2UCLA_101 (A6), BABullseye_92 (A6), BennyP_101 (A6), Candra_97 (A6), Chartreuse_98 (A6), CloudWang3_102 (A6), DaVinci_97 (A6), DelvinSonDorr_95 (A6), Dorothea_99 (A6), EricB_97 (A6), GreedyLawyer_89 (A6), Helmet_104 (A6), Hexamo_101 (A6), Hoot_94 (A6), Isiphiwo_96 (A6), Jeffabunny_90 (A6), JewelBug_91 (A6), Jordennis_97 (A6), Kazan_100 (A6), Kipper29_99 (A6), McFly_99 (A6), Newrala_98 (A6), Pmask_98 (A6), Polyphemus_92 (A6), Priamo_99 (A6), Roksolana_102 (A6), SmellyB_99 (A6), SuperAwesome_99 (A6), VohminGhazi_99 (A6),

Start 21:

- Found in 40 of 102 (39.2%) of genes in pham
- Manual Annotations of this start: 10 of 86
- Called 32.5% of time when present
- Phage (with cluster) where this start called: Aliter_91 (A9), Beemo_98 (A9), BogosyJay_97 (A9), EmyBug_94 (A9), Holecx_97 (A9), HortumSL17_99 (A9), Lilleskat_95 (A9), Myxus_98 (A9), Onglai_96 (A9), PackMan_93 (A9), Phaeder_98 (A9), Qobbit_95 (A9), Tubs_98 (A9),

Start 23:

- Found in 5 of 102 (4.9%) of genes in pham
- Manual Annotations of this start: 5 of 86
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Et2Brutus_99 (A11), Hutc2_96 (A11), Jabith_99 (A11), MissWhite_92 (A2), Salz_95 (A11),

Summary by clusters:

There are 6 clusters represented in this pham: A14, A11, A12, A2, A6, A9,

Info for manual annotations of cluster A11:

- Start number 23 was manually annotated 4 times for cluster A11.

Info for manual annotations of cluster A12:

- Start number 18 was manually annotated 1 time for cluster A12.

Info for manual annotations of cluster A14:

- Start number 19 was manually annotated 4 times for cluster A14.

Info for manual annotations of cluster A2:

- Start number 12 was manually annotated 2 times for cluster A2.
- Start number 13 was manually annotated 3 times for cluster A2.
- Start number 17 was manually annotated 1 time for cluster A2.
- Start number 19 was manually annotated 1 time for cluster A2.
- Start number 23 was manually annotated 1 time for cluster A2.

Info for manual annotations of cluster A6:

- Start number 19 was manually annotated 12 times for cluster A6.
- Start number 20 was manually annotated 27 times for cluster A6.

Info for manual annotations of cluster A9:

- Start number 11 was manually annotated 1 time for cluster A9.
- Start number 15 was manually annotated 2 times for cluster A9.
- Start number 16 was manually annotated 15 times for cluster A9.

- Start number 18 was manually annotated 1 time for cluster A9.
- Start number 19 was manually annotated 1 time for cluster A9.
- Start number 21 was manually annotated 10 times for cluster A9.

Gene Information:

Gene: Acolyte_88 Start: 50735, Stop: 50541, Start Num: 12

Candidate Starts for Acolyte_88:

(Start: 12 @50735 has 2 MA's), (Start: 13 @50732 has 3 MA's), (26, 50681), (28, 50669), (37, 50579),

Gene: Aliter_91 Start: 48577, Stop: 48383, Start Num: 21

Candidate Starts for Aliter_91:

(Start: 16 @48589 has 15 MA's), (Start: 21 @48577 has 10 MA's), (28, 48514), (31, 48469),

Gene: Alma_95 Start: 51299, Stop: 51096, Start Num: 16

Candidate Starts for Alma_95:

(Start: 16 @51299 has 15 MA's), (Start: 21 @51287 has 10 MA's), (28, 51227), (31, 51182),

Gene: Arissanae_93 Start: 51287, Stop: 51075, Start Num: 16

Candidate Starts for Arissanae_93:

(Start: 16 @51287 has 15 MA's), (Start: 21 @51275 has 10 MA's), (31, 51161),

Gene: Artemis2UCLA_101 Start: 50316, Stop: 50119, Start Num: 20

Candidate Starts for Artemis2UCLA_101:

(4, 50412), (7, 50388), (8, 50382), (Start: 20 @50316 has 27 MA's), (28, 50250), (32, 50199), (38, 50154),

Gene: Ayanochan_95 Start: 51090, Stop: 50887, Start Num: 16

Candidate Starts for Ayanochan_95:

(Start: 16 @51090 has 15 MA's), (Start: 21 @51078 has 10 MA's), (28, 51018), (31, 50973),

Gene: BABullseye_92 Start: 48454, Stop: 48257, Start Num: 20

Candidate Starts for BABullseye_92:

(4, 48550), (7, 48526), (8, 48520), (Start: 20 @48454 has 27 MA's), (28, 48388), (32, 48337), (38, 48292),

Gene: Bactobuster_86 Start: 50535, Stop: 50317, Start Num: 13

Candidate Starts for Bactobuster_86:

(2, 50706), (Start: 12 @50538 has 2 MA's), (Start: 13 @50535 has 3 MA's), (24, 50481), (25, 50466), (29, 50427), (33, 50391), (39, 50349),

Gene: Beemo_98 Start: 51408, Stop: 51217, Start Num: 21

Candidate Starts for Beemo_98:

(Start: 16 @51420 has 15 MA's), (Start: 21 @51408 has 10 MA's), (31, 51303),

Gene: Bellris_94 Start: 50894, Stop: 50664, Start Num: 11

Candidate Starts for Bellris_94:

(Start: 11 @50894 has 1 MA's), (Start: 20 @50867 has 27 MA's), (25, 50813), (26, 50807), (30, 50753), (36, 50723), (40, 50678),

Gene: BennyP_101 Start: 50300, Stop: 50103, Start Num: 20

Candidate Starts for BennyP_101:

(4, 50396), (7, 50372), (8, 50366), (Start: 20 @50300 has 27 MA's), (28, 50234), (32, 50183), (38, 50138),

Gene: BlessJoy_102 Start: 50840, Stop: 50643, Start Num: 19

Candidate Starts for BlessJoy_102:

(Start: 19 @50840 has 18 MA's), (38, 50678),

Gene: Blue7_103 Start: 50550, Stop: 50353, Start Num: 19

Candidate Starts for Blue7_103:

(Start: 19 @50550 has 18 MA's), (38, 50388),

Gene: BogosyJay_97 Start: 51415, Stop: 51218, Start Num: 21

Candidate Starts for BogosyJay_97:

(Start: 16 @51427 has 15 MA's), (Start: 21 @51415 has 10 MA's), (26, 51361), (28, 51349), (41, 51229),

Gene: Candra_97 Start: 50162, Stop: 49965, Start Num: 20

Candidate Starts for Candra_97:

(4, 50258), (7, 50234), (8, 50228), (Start: 20 @50162 has 27 MA's), (28, 50096), (32, 50045), (38, 50000),

Gene: Catalina_100 Start: 51533, Stop: 51330, Start Num: 16

Candidate Starts for Catalina_100:

(Start: 16 @51533 has 15 MA's), (Start: 21 @51521 has 10 MA's), (28, 51461), (31, 51416),

Gene: Chartreuse_98 Start: 49463, Stop: 49266, Start Num: 20

Candidate Starts for Chartreuse_98:

(4, 49559), (7, 49535), (8, 49529), (Start: 20 @49463 has 27 MA's), (28, 49397), (32, 49346), (38, 49301),

Gene: CloudWang3_102 Start: 50845, Stop: 50648, Start Num: 20

Candidate Starts for CloudWang3_102:

(4, 50941), (7, 50917), (8, 50911), (Start: 20 @50845 has 27 MA's), (28, 50779), (32, 50728), (38, 50683),

Gene: CogOmlette_94 Start: 50891, Stop: 50661, Start Num: 11

Candidate Starts for CogOmlette_94:

(Start: 11 @50891 has 1 MA's), (Start: 20 @50864 has 27 MA's), (25, 50810), (26, 50804), (30, 50750), (36, 50720), (40, 50675),

Gene: Conquerage_95 Start: 51075, Stop: 50872, Start Num: 16

Candidate Starts for Conquerage_95:

(Start: 16 @51075 has 15 MA's), (Start: 21 @51063 has 10 MA's), (28, 51003), (31, 50958),

Gene: DaVinci_97 Start: 49517, Stop: 49320, Start Num: 20

Candidate Starts for DaVinci_97:

(4, 49613), (7, 49589), (8, 49583), (Start: 20 @49517 has 27 MA's), (28, 49451), (32, 49400), (38, 49355),

Gene: DelvinSonDorr_95 Start: 49919, Stop: 49722, Start Num: 20

Candidate Starts for DelvinSonDorr_95:

(4, 50015), (7, 49991), (8, 49985), (Start: 20 @49919 has 27 MA's), (28, 49853), (32, 49802), (38, 49757),

Gene: Dorothea_99 Start: 50808, Stop: 50611, Start Num: 20

Candidate Starts for Dorothea_99:

(4, 50904), (7, 50880), (8, 50874), (Start: 20 @50808 has 27 MA's), (28, 50742), (32, 50691), (38, 50646),

Gene: DreamTeam1_93 Start: 50710, Stop: 50516, Start Num: 18

Candidate Starts for DreamTeam1_93:

(Start: 18 @50710 has 2 MA's), (25, 50665), (33, 50590), (34, 50587), (41, 50527),

Gene: EdogawaKiddo_97 Start: 51496, Stop: 51293, Start Num: 16

Candidate Starts for EdogawaKiddo_97:

(Start: 16 @51496 has 15 MA's), (Start: 21 @51484 has 10 MA's), (31, 51379),

Gene: Eidsmoe_95 Start: 51068, Stop: 50865, Start Num: 16

Candidate Starts for Eidsmoe_95:

(Start: 16 @51068 has 15 MA's), (Start: 21 @51056 has 10 MA's), (28, 50996), (31, 50951),

Gene: EmyBug_94 Start: 51058, Stop: 50867, Start Num: 21

Candidate Starts for EmyBug_94:

(Start: 16 @51070 has 15 MA's), (Start: 21 @51058 has 10 MA's), (28, 50998), (31, 50953),

Gene: EricB_97 Start: 49662, Stop: 49465, Start Num: 20

Candidate Starts for EricB_97:

(4, 49758), (7, 49734), (8, 49728), (Start: 20 @49662 has 27 MA's), (28, 49596), (32, 49545), (38, 49500),

Gene: Et2Brutus_99 Start: 50879, Stop: 50685, Start Num: 23

Candidate Starts for Et2Brutus_99:

(1, 51146), (Start: 12 @50909 has 2 MA's), (14, 50903), (Start: 21 @50885 has 10 MA's), (Start: 23 @50879 has 5 MA's), (25, 50834), (26, 50828), (34, 50756), (36, 50744),

Gene: ExplosioNervosa_95 Start: 51136, Stop: 50933, Start Num: 16

Candidate Starts for ExplosioNervosa_95:

(Start: 16 @51136 has 15 MA's), (Start: 21 @51124 has 10 MA's), (28, 51064), (31, 51019),

Gene: Fayely_95 Start: 51044, Stop: 50841, Start Num: 16

Candidate Starts for Fayely_95:

(Start: 16 @51044 has 15 MA's), (Start: 21 @51032 has 10 MA's), (28, 50972), (31, 50927),

Gene: Garak_103 Start: 50790, Stop: 50593, Start Num: 19

Candidate Starts for Garak_103:

(Start: 19 @50790 has 18 MA's), (38, 50628),

Gene: GaugeLDP_90 Start: 51345, Stop: 51148, Start Num: 19

Candidate Starts for GaugeLDP_90:

(Start: 19 @51345 has 18 MA's), (31, 51234),

Gene: GreedyLawyer_89 Start: 50095, Stop: 49898, Start Num: 20

Candidate Starts for GreedyLawyer_89:

(4, 50191), (7, 50167), (8, 50161), (Start: 20 @50095 has 27 MA's), (28, 50029), (32, 49978), (38, 49933),

Gene: Hanray_96 Start: 51485, Stop: 51282, Start Num: 16

Candidate Starts for Hanray_96:

(Start: 16 @51485 has 15 MA's), (Start: 21 @51473 has 10 MA's), (31, 51368),

Gene: Helmet_104 Start: 50790, Stop: 50593, Start Num: 20

Candidate Starts for Helmet_104:

(4, 50886), (7, 50862), (8, 50856), (Start: 20 @50790 has 27 MA's), (28, 50724), (32, 50673), (38, 50628),

Gene: Hexamo_101 Start: 50331, Stop: 50134, Start Num: 20

Candidate Starts for Hexamo_101:

(4, 50427), (7, 50403), (8, 50397), (Start: 20 @50331 has 27 MA's), (28, 50265), (32, 50214), (38, 50169),

Gene: Holec_97 Start: 51486, Stop: 51295, Start Num: 21

Candidate Starts for Holec_97:

(Start: 16 @51498 has 15 MA's), (Start: 21 @51486 has 10 MA's), (31, 51381),

Gene: Hoot_94 Start: 47979, Stop: 47782, Start Num: 20

Candidate Starts for Hoot_94:

(4, 48075), (7, 48051), (8, 48045), (Start: 20 @47979 has 27 MA's), (28, 47913), (32, 47862), (38, 47817),

Gene: HortumSL17_99 Start: 51522, Stop: 51328, Start Num: 21

Candidate Starts for HortumSL17_99:

(Start: 16 @51534 has 15 MA's), (Start: 21 @51522 has 10 MA's), (28, 51459), (31, 51414),

Gene: Hutc2_96 Start: 49769, Stop: 49575, Start Num: 23

Candidate Starts for Hutc2_96:

(1, 50036), (Start: 12 @49799 has 2 MA's), (14, 49793), (Start: 21 @49775 has 10 MA's), (Start: 23 @49769 has 5 MA's), (25, 49724), (26, 49718), (34, 49646), (36, 49634),

Gene: Indra_104 Start: 50791, Stop: 50594, Start Num: 19

Candidate Starts for Indra_104:

(Start: 19 @50791 has 18 MA's), (28, 50725), (32, 50674), (38, 50629),

Gene: IronMan_90 Start: 51924, Stop: 51724, Start Num: 17

Candidate Starts for IronMan_90:

(Start: 17 @51924 has 1 MA's),

Gene: Isiphiwo_96 Start: 49881, Stop: 49684, Start Num: 20

Candidate Starts for Isiphiwo_96:

(4, 49977), (7, 49953), (8, 49947), (Start: 20 @49881 has 27 MA's), (28, 49815), (32, 49764), (38, 49719),

Gene: Jabith_99 Start: 51077, Stop: 50883, Start Num: 23

Candidate Starts for Jabith_99:

(1, 51344), (Start: 12 @51107 has 2 MA's), (14, 51101), (Start: 21 @51083 has 10 MA's), (Start: 23 @51077 has 5 MA's), (25, 51032), (26, 51026), (34, 50954), (36, 50942),

Gene: Jeeves_100 Start: 50694, Stop: 50494, Start Num: 19
Candidate Starts for Jeeves_100:
(3, 50808), (9, 50742), (Start: 19 @50694 has 18 MA's), (25, 50646), (34, 50568),

Gene: Jeffabunny_90 Start: 46934, Stop: 46737, Start Num: 20
Candidate Starts for Jeffabunny_90:
(4, 47030), (7, 47006), (8, 47000), (Start: 20 @46934 has 27 MA's), (28, 46868), (32, 46817), (38, 46772),

Gene: JewelBug_91 Start: 48501, Stop: 48304, Start Num: 20
Candidate Starts for JewelBug_91:
(4, 48597), (6, 48579), (7, 48573), (8, 48567), (Start: 20 @48501 has 27 MA's), (28, 48435), (32, 48384), (38, 48339),

Gene: Jiawan_96 Start: 51515, Stop: 51312, Start Num: 16
Candidate Starts for Jiawan_96:
(Start: 16 @51515 has 15 MA's), (Start: 21 @51503 has 10 MA's), (31, 51398),

Gene: Jordennis_97 Start: 50405, Stop: 50208, Start Num: 20
Candidate Starts for Jordennis_97:
(4, 50501), (7, 50477), (8, 50471), (Start: 20 @50405 has 27 MA's), (28, 50339), (32, 50288), (38, 50243),

Gene: Kazan_100 Start: 50132, Stop: 49935, Start Num: 20
Candidate Starts for Kazan_100:
(4, 50228), (7, 50204), (8, 50198), (Start: 20 @50132 has 27 MA's), (28, 50066), (32, 50015), (38, 49970),

Gene: Kipper29_99 Start: 50180, Stop: 49983, Start Num: 20
Candidate Starts for Kipper29_99:
(4, 50276), (7, 50252), (8, 50246), (Start: 20 @50180 has 27 MA's), (28, 50114), (32, 50063), (38, 50018),

Gene: Landor_91 Start: 52081, Stop: 51863, Start Num: 13
Candidate Starts for Landor_91:
(2, 52252), (Start: 12 @52084 has 2 MA's), (Start: 13 @52081 has 3 MA's), (24, 52027), (25, 52012), (29, 51973), (33, 51937), (39, 51895),

Gene: Lilbunny_98 Start: 49038, Stop: 48841, Start Num: 19
Candidate Starts for Lilbunny_98:
(Start: 19 @49038 has 18 MA's), (38, 48876),

Gene: Lilleskat_95 Start: 51474, Stop: 51283, Start Num: 21
Candidate Starts for Lilleskat_95:
(Start: 16 @51486 has 15 MA's), (Start: 21 @51474 has 10 MA's), (31, 51369),

Gene: LoneWolf_97 Start: 51410, Stop: 51201, Start Num: 16
Candidate Starts for LoneWolf_97:
(Start: 16 @51410 has 15 MA's), (Start: 21 @51398 has 10 MA's), (26, 51344), (28, 51332),

Gene: Luchador_96 Start: 51613, Stop: 51407, Start Num: 19
Candidate Starts for Luchador_96:
(3, 51727), (9, 51661), (Start: 19 @51613 has 18 MA's), (26, 51553), (35, 51472),

Gene: Maminaiaina_97 Start: 51409, Stop: 51200, Start Num: 16

Candidate Starts for Maminaiaina_97:

(Start: 16 @51409 has 15 MA's), (Start: 21 @51397 has 10 MA's), (26, 51343), (28, 51331), (41, 51211),

Gene: McFly_99 Start: 50471, Stop: 50274, Start Num: 20

Candidate Starts for McFly_99:

(4, 50567), (7, 50543), (8, 50537), (Start: 20 @50471 has 27 MA's), (28, 50405), (32, 50354), (38, 50309),

Gene: Minispark_94 Start: 50888, Stop: 50658, Start Num: 11

Candidate Starts for Minispark_94:

(Start: 11 @50888 has 1 MA's), (Start: 20 @50861 has 27 MA's), (25, 50807), (26, 50801), (30, 50747), (36, 50717), (40, 50672),

Gene: MissWhite_92 Start: 48624, Stop: 48430, Start Num: 23

Candidate Starts for MissWhite_92:

(Start: 12 @48654 has 2 MA's), (14, 48648), (Start: 21 @48630 has 10 MA's), (Start: 23 @48624 has 5 MA's), (25, 48579), (26, 48573), (34, 48501), (36, 48489),

Gene: Myxus_98 Start: 51522, Stop: 51328, Start Num: 21

Candidate Starts for Myxus_98:

(Start: 16 @51534 has 15 MA's), (Start: 21 @51522 has 10 MA's), (28, 51459), (31, 51414),

Gene: Newrala_98 Start: 50570, Stop: 50373, Start Num: 20

Candidate Starts for Newrala_98:

(4, 50666), (7, 50642), (8, 50636), (Start: 20 @50570 has 27 MA's), (28, 50504), (32, 50453), (38, 50408),

Gene: NothingSpecial_87 Start: 50873, Stop: 50661, Start Num: 12

Candidate Starts for NothingSpecial_87:

(Start: 12 @50873 has 2 MA's), (Start: 13 @50870 has 3 MA's), (Start: 21 @50861 has 10 MA's), (25, 50810), (33, 50735), (36, 50720),

Gene: Onglai_96 Start: 49675, Stop: 49484, Start Num: 21

Candidate Starts for Onglai_96:

(Start: 16 @49687 has 15 MA's), (Start: 21 @49675 has 10 MA's), (31, 49570),

Gene: PackMan_93 Start: 49436, Stop: 49242, Start Num: 21

Candidate Starts for PackMan_93:

(Start: 16 @49448 has 15 MA's), (Start: 21 @49436 has 10 MA's), (28, 49373), (31, 49328),

Gene: Phaeder_98 Start: 51397, Stop: 51203, Start Num: 21

Candidate Starts for Phaeder_98:

(Start: 16 @51409 has 15 MA's), (Start: 21 @51397 has 10 MA's), (28, 51334), (31, 51289),

Gene: Phonnegut_98 Start: 51419, Stop: 51216, Start Num: 16

Candidate Starts for Phonnegut_98:

(Start: 16 @51419 has 15 MA's), (Start: 21 @51407 has 10 MA's), (31, 51302),

Gene: Pioneer_98 Start: 51419, Stop: 51216, Start Num: 16

Candidate Starts for Pioneer_98:

(Start: 16 @51419 has 15 MA's), (Start: 21 @51407 has 10 MA's), (31, 51302),

Gene: Pmask_98 Start: 50771, Stop: 50574, Start Num: 20

Candidate Starts for Pmask_98:

(4, 50867), (7, 50843), (8, 50837), (Start: 20 @50771 has 27 MA's), (28, 50705), (32, 50654), (38, 50609),

Gene: Polyphemus_92 Start: 48585, Stop: 48388, Start Num: 20

Candidate Starts for Polyphemus_92:

(4, 48681), (6, 48663), (7, 48657), (8, 48651), (Start: 20 @48585 has 27 MA's), (28, 48519), (32, 48468), (38, 48423),

Gene: Priamo_99 Start: 49814, Stop: 49617, Start Num: 20

Candidate Starts for Priamo_99:

(4, 49910), (7, 49886), (8, 49880), (Start: 20 @49814 has 27 MA's), (28, 49748), (32, 49697), (38, 49652),

Gene: Priya_95 Start: 51071, Stop: 50868, Start Num: 16

Candidate Starts for Priya_95:

(Start: 16 @51071 has 15 MA's), (Start: 21 @51059 has 10 MA's), (28, 50999), (31, 50954),

Gene: Qobbit_95 Start: 51021, Stop: 50830, Start Num: 21

Candidate Starts for Qobbit_95:

(Start: 16 @51033 has 15 MA's), (Start: 21 @51021 has 10 MA's), (28, 50961), (31, 50916),

Gene: Rahalelujah_96 Start: 50903, Stop: 50673, Start Num: 11

Candidate Starts for Rahalelujah_96:

(Start: 11 @50903 has 1 MA's), (Start: 20 @50876 has 27 MA's), (25, 50822), (26, 50816), (30, 50762), (36, 50732), (40, 50687),

Gene: Refuge_90 Start: 51776, Stop: 51570, Start Num: 18

Candidate Starts for Refuge_90:

(9, 51821), (Start: 18 @51776 has 2 MA's), (22, 51767), (33, 51644), (40, 51584),

Gene: Roksolana_102 Start: 50674, Stop: 50477, Start Num: 20

Candidate Starts for Roksolana_102:

(4, 50770), (7, 50746), (8, 50740), (Start: 20 @50674 has 27 MA's), (28, 50608), (32, 50557), (38, 50512),

Gene: RyeScarlet_99 Start: 51405, Stop: 51202, Start Num: 16

Candidate Starts for RyeScarlet_99:

(Start: 16 @51405 has 15 MA's), (Start: 21 @51393 has 10 MA's), (31, 51288),

Gene: Sachima_94 Start: 51433, Stop: 51230, Start Num: 16

Candidate Starts for Sachima_94:

(Start: 16 @51433 has 15 MA's), (Start: 21 @51421 has 10 MA's), (31, 51316),

Gene: Salz_95 Start: 49691, Stop: 49497, Start Num: 23

Candidate Starts for Salz_95:

(1, 49958), (Start: 12 @49721 has 2 MA's), (14, 49715), (Start: 21 @49697 has 10 MA's), (Start: 23 @49691 has 5 MA's), (25, 49646), (26, 49640), (34, 49568), (36, 49556),

Gene: Scherzo_96 Start: 51450, Stop: 51247, Start Num: 16

Candidate Starts for Scherzo_96:

(Start: 16 @51450 has 15 MA's), (Start: 21 @51438 has 10 MA's), (31, 51333),

Gene: SmellyB_99 Start: 50126, Stop: 49929, Start Num: 20

Candidate Starts for SmellyB_99:

(4, 50222), (7, 50198), (8, 50192), (Start: 20 @50126 has 27 MA's), (28, 50060), (32, 50009), (38, 49964),

Gene: SororFago_96 Start: 51668, Stop: 51465, Start Num: 19

Candidate Starts for SororFago_96:

(3, 51782), (9, 51716), (Start: 19 @51668 has 18 MA's), (25, 51617), (27, 51602), (34, 51539),

Gene: Spouty_95 Start: 51070, Stop: 50867, Start Num: 16

Candidate Starts for Spouty_95:

(Start: 16 @51070 has 15 MA's), (Start: 21 @51058 has 10 MA's), (28, 50998), (31, 50953),

Gene: Sunhee_101 Start: 50509, Stop: 50312, Start Num: 19

Candidate Starts for Sunhee_101:

(3, 50623), (9, 50557), (Start: 19 @50509 has 18 MA's), (26, 50455), (33, 50386), (36, 50371), (38, 50347), (40, 50326),

Gene: SuperAwesome_99 Start: 50810, Stop: 50613, Start Num: 20

Candidate Starts for SuperAwesome_99:

(4, 50906), (7, 50882), (8, 50876), (Start: 20 @50810 has 27 MA's), (28, 50744), (32, 50693), (38, 50648),

Gene: Temprado_103 Start: 50790, Stop: 50593, Start Num: 19

Candidate Starts for Temprado_103:

(Start: 19 @50790 has 18 MA's), (38, 50628),

Gene: Toaka_95 Start: 51213, Stop: 51004, Start Num: 15

Candidate Starts for Toaka_95:

(5, 51282), (10, 51240), (Start: 15 @51213 has 2 MA's), (25, 51153), (26, 51147), (33, 51078),

Gene: ToneTone_98 Start: 50341, Stop: 50144, Start Num: 19

Candidate Starts for ToneTone_98:

(Start: 19 @50341 has 18 MA's), (38, 50179),

Gene: Tristan_90 Start: 51880, Stop: 51662, Start Num: 13

Candidate Starts for Tristan_90:

(Start: 12 @51883 has 2 MA's), (Start: 13 @51880 has 3 MA's), (24, 51826), (25, 51811), (29, 51772), (33, 51736), (39, 51694),

Gene: Tubs_98 Start: 51397, Stop: 51203, Start Num: 21

Candidate Starts for Tubs_98:

(Start: 16 @51409 has 15 MA's), (Start: 21 @51397 has 10 MA's), (28, 51334), (31, 51289),

Gene: Tucker_102 Start: 50544, Stop: 50347, Start Num: 19

Candidate Starts for Tucker_102:

(Start: 19 @50544 has 18 MA's), (38, 50382),

Gene: Ugenie5_85 Start: 48894, Stop: 48691, Start Num: 16

Candidate Starts for Ugenie5_85:

(Start: 16 @48894 has 15 MA's), (Start: 21 @48882 has 10 MA's), (31, 48777),

Gene: Vanisoa_92 Start: 51506, Stop: 51297, Start Num: 15

Candidate Starts for Vanisoa_92:

(Start: 15 @51506 has 2 MA's), (25, 51446), (26, 51440),

Gene: VohminGhazi_99 Start: 50127, Stop: 49930, Start Num: 20

Candidate Starts for VohminGhazi_99:

(4, 50223), (7, 50199), (8, 50193), (Start: 20 @50127 has 27 MA's), (28, 50061), (32, 50010), (38, 49965),

Gene: Wiks_101 Start: 50421, Stop: 50224, Start Num: 19

Candidate Starts for Wiks_101:

(Start: 19 @50421 has 18 MA's), (38, 50259),

Gene: WorldCup_95 Start: 50989, Stop: 50759, Start Num: 11

Candidate Starts for WorldCup_95:

(Start: 11 @50989 has 1 MA's), (Start: 20 @50962 has 27 MA's), (25, 50908), (26, 50902), (30, 50848), (36, 50818), (40, 50773),

Gene: WunderPhul_90 Start: 47023, Stop: 46826, Start Num: 19

Candidate Starts for WunderPhul_90:

(Start: 19 @47023 has 18 MA's), (38, 46861),

Gene: Yecey3_99 Start: 51233, Stop: 51030, Start Num: 19

Candidate Starts for Yecey3_99:

(Start: 19 @51233 has 18 MA's), (42, 51035),

Gene: Yokurt_101 Start: 50421, Stop: 50224, Start Num: 19

Candidate Starts for Yokurt_101:

(Start: 19 @50421 has 18 MA's), (38, 50259),

Gene: Zaka_102 Start: 50421, Stop: 50224, Start Num: 19

Candidate Starts for Zaka_102:

(Start: 19 @50421 has 18 MA's), (38, 50259),

Gene: Zulu_103 Start: 50798, Stop: 50601, Start Num: 19

Candidate Starts for Zulu_103:

(Start: 19 @50798 has 18 MA's), (38, 50636),