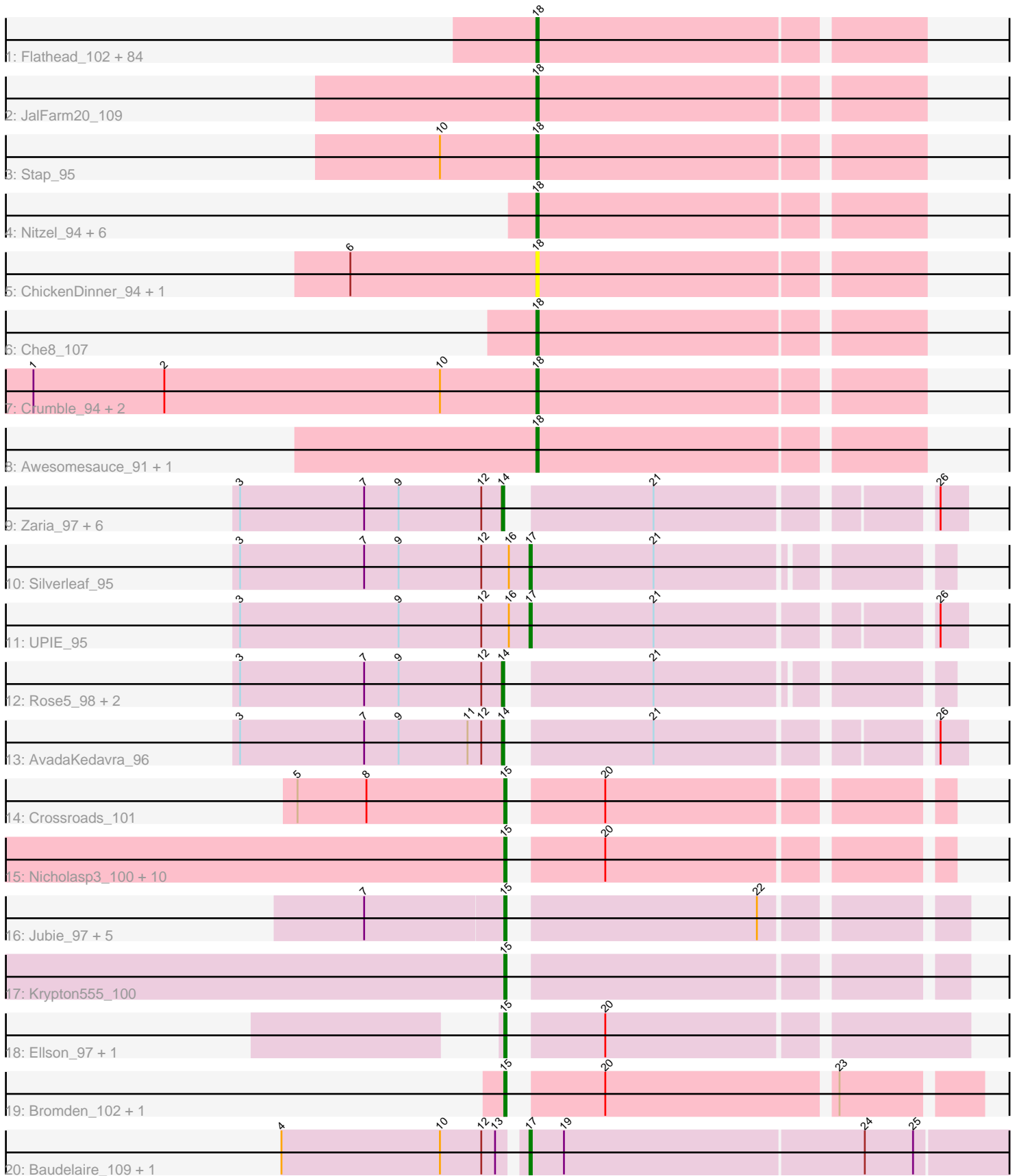


Pham 161679



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 161679 Report

This analysis was run 04/28/24 on database version 559.

Pham number 161679 has 140 members, 17 are drafts.

Phages represented in each track:

- Track 1 : Flathead_102, Brocalys_92, PhesterPhotato_103, CaptainTrips_102, Guppsters_94, Llama_107, DotProduct_94, KristaRAM_108, ShowerHandel_98, Clifton_92, Eish_105, MisterCuddles_100, DLane_100, Zerg_98, MilleniumForce_100, Ochi17_106, Bubbles123_94, MilanaBonita_93, DeadP_100, Filuzino_100, IbOuu_96, AlpineSix_98, Sarma624_102, BobaPhett_102, Ardmore_84, Ms6_102, Coco12_101, Mozy_104, Rita_100, Philus_104, Seagreen_101, Seabastian_107, Chuckly_97, Aubs_100, LastJedi_91, Jinglebell_107, Pippy_98, Cerasum_99, LittleShirley_107, VRedHorse_101, Hamulus_100, Girr_99, Batiatus_100, SG4_101, Cabrinians_97, Burwell21_94, Lizziana_101, OfUltron_107, Mutaforma13_101, Mova_102, Kingsley_109, Royals2015_104, Hegedechwinu_108, Oksu_104, Karhdo_95, Phalconet_101, Taj_106, Tweety_101, Firehouse51_94, James_104, Maravista_97, SwagPiggett_102, Priscilla_101, NormanBulbieJr_98, Velveteen_97, BigPhil_97, Blexus_97, Martik_99, Wee_103, Melissauren88_90, Bipolar_102, Phanphagia_105, Tootsieroll_94, Whatsapiecost_94, Cornucopia_100, Koella_93, Kenuha5_92, Fruitloop_98, Emma_105, Dante_98, Zizzle_103, DosHalletts_100, Akhila_94, XFactor_91, Shauna1_102
- Track 2 : JalFarm20_109
- Track 3 : Stap_95
- Track 4 : Nitzel_94, Florinda_112, StAnnes_104, Girafales_109, ShroomBoi_98, Quico_109, Job42_101
- Track 5 : ChickenDinner_94, DocMcStuffins_87
- Track 6 : Che8_107
- Track 7 : Crumble_94, OlympiaSaint_104, Sabbb_103
- Track 8 : Awesomesauce_91, Beakin_92
- Track 9 : Zaria_97, Wyatt2_97, Tyson_98, Halena_94, MAckerman_93, Acquire49_96, Calm_98
- Track 10 : Silverleaf_95
- Track 11 : UPIE_95
- Track 12 : Rose5_98, JoeDirt_98, Enceladus_93
- Track 13 : AvadaKedavra_96
- Track 14 : Crossroads_101
- Track 15 : Nicholasp3_100, LilDestine_98, Bazzle_97, Archie_97, Finemlucis_101, Itos_100, Kahlid_99, Gabriela_100, Zakai_101, Rumpelstiltskin_96, BobsGarage_99
- Track 16 : Jubie_97, Finnry_98, MsGreen_98, Clautastrophe_96, Bellis_96, Samty_97
- Track 17 : Krypton555_100

- Track 18 : Ellson_97, DuncansLeg_99
- Track 19 : Bromden_102, Douge_101
- Track 20 : Baudelaire_109, Aegeus_109

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

The start number called the most often in the published annotations is 18, it was called in 89 of the 123 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Akhila_94, AlpineSix_98, Ardmore_84, Aubs_100, Awesomesauce_91, Batiatus_100, Beakin_92, BigPhil_97, Bipolar_102, Blexus_97, BobaPhett_102, Brocalys_92, Bubbles123_94, Burwell21_94, Cabrinians_97, CaptainTrips_102, Cerasum_99, Che8_107, ChickenDinner_94, Chuckly_97, Clifton_92, Coco12_101, Cornucopia_100, Crumble_94, DLane_100, Dante_98, DeadP_100, DocMcStuffins_87, DosHalletts_100, DotProduct_94, Eish_105, Emma_105, Filuzino_100, Firehouse51_94, Flathead_102, Florinda_112, Fruitloop_98, Girafales_109, Girr_99, Guppsters_94, Hamulus_100, Hegedechwinu_108, IbOuu_96, JalFarm20_109, James_104, Jinglebell_107, Job42_101, Karhdo_95, Kenuha5_92, Kingsley_109, Koella_93, KristaRAM_108, LastJedi_91, LittleShirley_107, Lizziana_101, Llama_107, Maravista_97, Martik_99, Melissauren88_90, MilanaBonita_93, MilleniumForce_100, MisterCuddles_100, Mova_102, Mozy_104, Ms6_102, Mutaforma13_101, Nitzel_94, NormanBulbieJr_98, Ochi17_106, OfUltron_107, Oksu_104, OlympiaSaint_104, Phalconet_101, Phanphagia_105, PhesterPhotato_103, Philus_104, Pippy_98, Priscilla_101, Quico_109, Rita_100, Royals2015_104, SG4_101, Sabbb_103, Sarma624_102, Sebastian_107, Seagreen_101, Shauna1_102, ShowerHandel_98, ShroomBoi_98, StAnnes_104, Stap_95, SwagPiggett_102, Taj_106, Tootsieroll_94, Tweety_101, VRedHorse_101, Velveteen_97, Wee_103, Whatsapiecost_94, XFactor_91, Zerg_98, Zizzle_103,

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

-

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

- Acquire49_96, Aegeus_109, Archie_97, AvadaKedavra_96, Baudelaire_109, Bazzle_97, Bellis_96, BobsGarage_99, Bromden_102, Calm_98, Clautastrophe_96, Crossroads_101, Douge_101, DuncansLeg_99, Ellson_97, Enceladus_93, Finemlucis_101, Finnry_98, Gabriela_100, Halena_94, Itos_100, JoeDirt_98, Jubie_97, Kahlid_99, Krypton555_100, LilDestine_98, MAckerman_93, MsGreen_98, Nicholasp3_100, Rose5_98, Rumpelstiltskin_96, Samty_97, Silverleaf_95, Tyson_98, UPIE_95, Wyatt2_97, Zakai_101, Zaria_97,

Summary by start number:

Start 14:

- Found in 11 of 140 (7.9%) of genes in pham
- Manual Annotations of this start: 10 of 123
- Called 100.0% of time when present

- Phage (with cluster) where this start called: Acquire49_96 (L1), AvadaKedavra_96 (L1), Calm_98 (L1), Enceladus_93 (L1), Halena_94 (L1), JoeDirt_98 (L1), MAckerman_93 (L1), Rose5_98 (L1), Tyson_98 (L1), Wyatt2_97 (L1), Zaria_97 (L1),

Start 15:

- Found in 23 of 140 (16.4%) of genes in pham
- Manual Annotations of this start: 20 of 123
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Archie_97 (L2), Bazzle_97 (L2), Bellis_96 (L3), BobsGarage_99 (L2), Bromden_102 (L4), Clautastrophe_96 (L3), Crossroads_101 (L2), Douge_101 (L4), DuncansLeg_99 (L3), Ellson_97 (L3), Finemlucis_101 (L2), Finnry_98 (L3), Gabriela_100 (L2), Itos_100 (L2), Jubie_97 (L3), Kahlid_99 (L2), Krypton555_100 (L3), LilDestine_98 (L2), MsGreen_98 (L3), Nicholasp3_100 (L2), Rumpelstiltskin_96 (L2), Samty_97 (L3), Zakai_101 (L2),

Start 17:

- Found in 4 of 140 (2.9%) of genes in pham
- Manual Annotations of this start: 4 of 123
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Aegeus_109 (L5), Baudelaire_109 (L5), Silverleaf_95 (L1), UPIE_95 (L1),

Start 18:

- Found in 102 of 140 (72.9%) of genes in pham
- Manual Annotations of this start: 89 of 123
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Akhila_94 (F1), AlpineSix_98 (F1), Ardmore_84 (F1), Aubs_100 (F1), Awesomesauce_91 (F1), Batiatus_100 (F1), Beakin_92 (F1), BigPhil_97 (F1), Bipolar_102 (F1), Blexus_97 (F1), BobaPhett_102 (F1), Brocalys_92 (F1), Bubbles123_94 (F1), Burwell21_94 (F1), Cabrinians_97 (F1), CaptainTrips_102 (F1), Cerasum_99 (F1), Che8_107 (F1), ChickenDinner_94 (F1), Chuckly_97 (F1), Clifton_92 (F1), Coco12_101 (F1), Cornucopia_100 (F1), Crumble_94 (F1), DLane_100 (F1), Dante_98 (F1), DeadP_100 (F1), DocMcStuffins_87 (F1), DosHalletts_100 (F1), DotProduct_94 (F1), Eish_105 (F1), Emma_105 (F1), Filuzino_100 (F1), Firehouse51_94 (F1), Flathead_102 (F1), Florinda_112 (F1), Fruitloop_98 (F1), Girafales_109 (F1), Girr_99 (F1), Guppsters_94 (F1), Hamulus_100 (F1), Hegedechwinu_108 (F1), IbOuu_96 (F1), JalFarm20_109 (F1), James_104 (F1), Jinglebell_107 (F1), Job42_101 (F1), Karhdo_95 (F1), Kenuha5_92 (F1), Kingsley_109 (F1), Koella_93 (F1), KristaRAM_108 (F1), LastJedi_91 (F1), LittleShirley_107 (F1), Lizziana_101 (F1), Llama_107 (F1), Maravista_97 (F1), Martik_99 (F1), Melissauren88_90 (F1), MilanaBonita_93 (F1), MilleniumForce_100 (F1), MisterCuddles_100 (F1), Mova_102 (F1), Mozy_104 (F1), Ms6_102 (F1), Mutaforma13_101 (F1), Nitzel_94 (F1), NormanBulbieJr_98 (F1), Ochi17_106 (F1), OfUltron_107 (F1), Oksu_104 (F1), OlympiaSaint_104 (F1), Phalconet_101 (F1), Phanphagia_105 (F1), PhesterPhotato_103 (F1), Philus_104 (F1), Pippy_98 (F1), Priscilla_101 (F1), Quico_109 (F1), Rita_100 (F1), Royals2015_104 (F1), SG4_101 (F1), Sabbb_103 (F1), Sarma624_102 (F1), Sebastian_107 (F1), Seagreen_101 (F1), Shauna1_102 (F1), ShowerHandel_98 (F1), ShroomBoi_98 (F1), StAnnes_104 (F1), Stap_95 (F1), SwagPiggett_102 (F1), Taj_106 (F1), Tootsieroll_94 (F1), Tweety_101 (F1), VRedHorse_101 (F1), Velveteen_97 (F1), Wee_103 (F1), Whatsapiecost_94 (F1), XFactor_91 (F1), Zerg_98 (F1), Zizzle_103 (F1),

Summary by clusters:

There are 6 clusters represented in this pham: F1, L4, L5, L2, L3, L1,

Info for manual annotations of cluster F1:

- Start number 18 was manually annotated 89 times for cluster F1.

Info for manual annotations of cluster L1:

- Start number 14 was manually annotated 10 times for cluster L1.
- Start number 17 was manually annotated 2 times for cluster L1.

Info for manual annotations of cluster L2:

- Start number 15 was manually annotated 12 times for cluster L2.

Info for manual annotations of cluster L3:

- Start number 15 was manually annotated 7 times for cluster L3.

Info for manual annotations of cluster L4:

- Start number 15 was manually annotated 1 time for cluster L4.

Info for manual annotations of cluster L5:

- Start number 17 was manually annotated 2 times for cluster L5.

Gene Information:

Gene: Acquire49_96 Start: 59453, Stop: 59626, Start Num: 14

Candidate Starts for Acquire49_96:

(3, 59339), (7, 59393), (9, 59408), (12, 59444), (Start: 14 @59453 has 10 MA's), (21, 59507), (26, 59615),

Gene: Aegeus_109 Start: 63189, Stop: 63410, Start Num: 17

Candidate Starts for Aegeus_109:

(4, 63087), (10, 63156), (12, 63174), (13, 63180), (Start: 17 @63189 has 4 MA's), (19, 63204), (24, 63333), (25, 63354),

Gene: Akhila_94 Start: 52864, Stop: 53025, Start Num: 18

Candidate Starts for Akhila_94:

(Start: 18 @52864 has 89 MA's),

Gene: AlpineSix_98 Start: 53582, Stop: 53743, Start Num: 18

Candidate Starts for AlpineSix_98:

(Start: 18 @53582 has 89 MA's),

Gene: Archie_97 Start: 61162, Stop: 61338, Start Num: 15

Candidate Starts for Archie_97:

(Start: 15 @61162 has 20 MA's), (20, 61195),

Gene: Ardmore_84 Start: 48753, Stop: 48914, Start Num: 18

Candidate Starts for Ardmore_84:

(Start: 18 @48753 has 89 MA's),

Gene: Aubs_100 Start: 55755, Stop: 55916, Start Num: 18
Candidate Starts for Aubs_100:
(Start: 18 @55755 has 89 MA's),

Gene: AvadaKedavra_96 Start: 59565, Stop: 59738, Start Num: 14
Candidate Starts for AvadaKedavra_96:
(3, 59451), (7, 59505), (9, 59520), (11, 59550), (12, 59556), (Start: 14 @59565 has 10 MA's), (21, 59619), (26, 59727),

Gene: Awesomesauce_91 Start: 54238, Stop: 54399, Start Num: 18
Candidate Starts for Awesomesauce_91:
(Start: 18 @54238 has 89 MA's),

Gene: Batiatus_100 Start: 54303, Stop: 54464, Start Num: 18
Candidate Starts for Batiatus_100:
(Start: 18 @54303 has 89 MA's),

Gene: Baudelaire_109 Start: 63189, Stop: 63410, Start Num: 17
Candidate Starts for Baudelaire_109:
(4, 63087), (10, 63156), (12, 63174), (13, 63180), (Start: 17 @63189 has 4 MA's), (19, 63204), (24, 63333), (25, 63354),

Gene: Bazzle_97 Start: 61718, Stop: 61894, Start Num: 15
Candidate Starts for Bazzle_97:
(Start: 15 @61718 has 20 MA's), (20, 61751),

Gene: Beakin_92 Start: 51276, Stop: 51437, Start Num: 18
Candidate Starts for Beakin_92:
(Start: 18 @51276 has 89 MA's),

Gene: Bellis_96 Start: 61495, Stop: 61671, Start Num: 15
Candidate Starts for Bellis_96:
(7, 61435), (Start: 15 @61495 has 20 MA's), (22, 61594),

Gene: BigPhil_97 Start: 51095, Stop: 51256, Start Num: 18
Candidate Starts for BigPhil_97:
(Start: 18 @51095 has 89 MA's),

Gene: Bipolar_102 Start: 56072, Stop: 56233, Start Num: 18
Candidate Starts for Bipolar_102:
(Start: 18 @56072 has 89 MA's),

Gene: Blexus_97 Start: 54682, Stop: 54843, Start Num: 18
Candidate Starts for Blexus_97:
(Start: 18 @54682 has 89 MA's),

Gene: BobaPhett_102 Start: 56361, Stop: 56522, Start Num: 18
Candidate Starts for BobaPhett_102:
(Start: 18 @56361 has 89 MA's),

Gene: BobsGarage_99 Start: 61936, Stop: 62106, Start Num: 15
Candidate Starts for BobsGarage_99:
(Start: 15 @61936 has 20 MA's), (20, 61969),

Gene: Brocalys_92 Start: 51840, Stop: 52001, Start Num: 18
Candidate Starts for Brocalys_92:
(Start: 18 @51840 has 89 MA's),

Gene: Bromden_102 Start: 62718, Stop: 62903, Start Num: 15
Candidate Starts for Bromden_102:
(Start: 15 @62718 has 20 MA's), (20, 62751), (23, 62847),

Gene: Bubbles123_94 Start: 54115, Stop: 54276, Start Num: 18
Candidate Starts for Bubbles123_94:
(Start: 18 @54115 has 89 MA's),

Gene: Burwell21_94 Start: 54126, Stop: 54287, Start Num: 18
Candidate Starts for Burwell21_94:
(Start: 18 @54126 has 89 MA's),

Gene: Cabrinians_97 Start: 53761, Stop: 53922, Start Num: 18
Candidate Starts for Cabrinians_97:
(Start: 18 @53761 has 89 MA's),

Gene: Calm_98 Start: 59832, Stop: 60005, Start Num: 14
Candidate Starts for Calm_98:
(3, 59718), (7, 59772), (9, 59787), (12, 59823), (Start: 14 @59832 has 10 MA's), (21, 59886), (26, 59994),

Gene: CaptainTrips_102 Start: 53941, Stop: 54102, Start Num: 18
Candidate Starts for CaptainTrips_102:
(Start: 18 @53941 has 89 MA's),

Gene: Cerasum_99 Start: 51113, Stop: 51274, Start Num: 18
Candidate Starts for Cerasum_99:
(Start: 18 @51113 has 89 MA's),

Gene: Che8_107 Start: 55993, Stop: 56154, Start Num: 18
Candidate Starts for Che8_107:
(Start: 18 @55993 has 89 MA's),

Gene: ChickenDinner_94 Start: 54002, Stop: 54163, Start Num: 18
Candidate Starts for ChickenDinner_94:
(6, 53921), (Start: 18 @54002 has 89 MA's),

Gene: Chuckly_97 Start: 50983, Stop: 51144, Start Num: 18
Candidate Starts for Chuckly_97:
(Start: 18 @50983 has 89 MA's),

Gene: Clautastrophe_96 Start: 61490, Stop: 61666, Start Num: 15
Candidate Starts for Clautastrophe_96:
(7, 61430), (Start: 15 @61490 has 20 MA's), (22, 61589),

Gene: Clifton_92 Start: 52815, Stop: 52976, Start Num: 18
Candidate Starts for Clifton_92:
(Start: 18 @52815 has 89 MA's),

Gene: Coco12_101 Start: 55170, Stop: 55331, Start Num: 18

Candidate Starts for Coco12_101:

(Start: 18 @55170 has 89 MA's),

Gene: Cornucopia_100 Start: 52241, Stop: 52402, Start Num: 18

Candidate Starts for Cornucopia_100:

(Start: 18 @52241 has 89 MA's),

Gene: Crossroads_101 Start: 61823, Stop: 61993, Start Num: 15

Candidate Starts for Crossroads_101:

(5, 61733), (8, 61763), (Start: 15 @61823 has 20 MA's), (20, 61856),

Gene: Crumble_94 Start: 50509, Stop: 50670, Start Num: 18

Candidate Starts for Crumble_94:

(1, 50290), (2, 50347), (10, 50467), (Start: 18 @50509 has 89 MA's),

Gene: DLane_100 Start: 55223, Stop: 55384, Start Num: 18

Candidate Starts for DLane_100:

(Start: 18 @55223 has 89 MA's),

Gene: Dante_98 Start: 55573, Stop: 55734, Start Num: 18

Candidate Starts for Dante_98:

(Start: 18 @55573 has 89 MA's),

Gene: DeadP_100 Start: 52801, Stop: 52962, Start Num: 18

Candidate Starts for DeadP_100:

(Start: 18 @52801 has 89 MA's),

Gene: DocMcStuffins_87 Start: 55632, Stop: 55793, Start Num: 18

Candidate Starts for DocMcStuffins_87:

(6, 55551), (Start: 18 @55632 has 89 MA's),

Gene: DosHalletts_100 Start: 54563, Stop: 54724, Start Num: 18

Candidate Starts for DosHalletts_100:

(Start: 18 @54563 has 89 MA's),

Gene: DotProduct_94 Start: 51930, Stop: 52091, Start Num: 18

Candidate Starts for DotProduct_94:

(Start: 18 @51930 has 89 MA's),

Gene: Douge_101 Start: 61402, Stop: 61587, Start Num: 15

Candidate Starts for Douge_101:

(Start: 15 @61402 has 20 MA's), (20, 61435), (23, 61531),

Gene: DuncansLeg_99 Start: 61656, Stop: 61838, Start Num: 15

Candidate Starts for DuncansLeg_99:

(Start: 15 @61656 has 20 MA's), (20, 61689),

Gene: Eish_105 Start: 55239, Stop: 55400, Start Num: 18

Candidate Starts for Eish_105:

(Start: 18 @55239 has 89 MA's),

Gene: Ellson_97 Start: 61971, Stop: 62153, Start Num: 15
Candidate Starts for Ellson_97:
(Start: 15 @61971 has 20 MA's), (20, 62004),

Gene: Emma_105 Start: 53507, Stop: 53668, Start Num: 18
Candidate Starts for Emma_105:
(Start: 18 @53507 has 89 MA's),

Gene: Enceladus_93 Start: 59494, Stop: 59661, Start Num: 14
Candidate Starts for Enceladus_93:
(3, 59380), (7, 59434), (9, 59449), (12, 59485), (Start: 14 @59494 has 10 MA's), (21, 59548),

Gene: Filuzino_100 Start: 55918, Stop: 56079, Start Num: 18
Candidate Starts for Filuzino_100:
(Start: 18 @55918 has 89 MA's),

Gene: Finemlucis_101 Start: 62639, Stop: 62809, Start Num: 15
Candidate Starts for Finemlucis_101:
(Start: 15 @62639 has 20 MA's), (20, 62672),

Gene: Finnry_98 Start: 61843, Stop: 62019, Start Num: 15
Candidate Starts for Finnry_98:
(7, 61783), (Start: 15 @61843 has 20 MA's), (22, 61942),

Gene: Firehouse51_94 Start: 54735, Stop: 54896, Start Num: 18
Candidate Starts for Firehouse51_94:
(Start: 18 @54735 has 89 MA's),

Gene: Flathead_102 Start: 54239, Stop: 54400, Start Num: 18
Candidate Starts for Flathead_102:
(Start: 18 @54239 has 89 MA's),

Gene: Florinda_112 Start: 56324, Stop: 56485, Start Num: 18
Candidate Starts for Florinda_112:
(Start: 18 @56324 has 89 MA's),

Gene: Fruitloop_98 Start: 55083, Stop: 55244, Start Num: 18
Candidate Starts for Fruitloop_98:
(Start: 18 @55083 has 89 MA's),

Gene: Gabriela_100 Start: 60925, Stop: 61095, Start Num: 15
Candidate Starts for Gabriela_100:
(Start: 15 @60925 has 20 MA's), (20, 60958),

Gene: Girafales_109 Start: 55929, Stop: 56090, Start Num: 18
Candidate Starts for Girafales_109:
(Start: 18 @55929 has 89 MA's),

Gene: Girr_99 Start: 54813, Stop: 54974, Start Num: 18
Candidate Starts for Girr_99:
(Start: 18 @54813 has 89 MA's),

Gene: Guppsters_94 Start: 51924, Stop: 52085, Start Num: 18

Candidate Starts for Guppsters_94:
(Start: 18 @51924 has 89 MA's),

Gene: Halena_94 Start: 58748, Stop: 58921, Start Num: 14
Candidate Starts for Halena_94:
(3, 58634), (7, 58688), (9, 58703), (12, 58739), (Start: 14 @58748 has 10 MA's), (21, 58802), (26, 58910),

Gene: Hamulus_100 Start: 53768, Stop: 53929, Start Num: 18
Candidate Starts for Hamulus_100:
(Start: 18 @53768 has 89 MA's),

Gene: Hegedechwinu_108 Start: 54304, Stop: 54465, Start Num: 18
Candidate Starts for Hegedechwinu_108:
(Start: 18 @54304 has 89 MA's),

Gene: lbOuu_96 Start: 51910, Stop: 52071, Start Num: 18
Candidate Starts for lbOuu_96:
(Start: 18 @51910 has 89 MA's),

Gene: Itos_100 Start: 60485, Stop: 60655, Start Num: 15
Candidate Starts for Itos_100:
(Start: 15 @60485 has 20 MA's), (20, 60518),

Gene: JalFarm20_109 Start: 56245, Stop: 56406, Start Num: 18
Candidate Starts for JalFarm20_109:
(Start: 18 @56245 has 89 MA's),

Gene: James_104 Start: 56416, Stop: 56577, Start Num: 18
Candidate Starts for James_104:
(Start: 18 @56416 has 89 MA's),

Gene: Jinglebell_107 Start: 55692, Stop: 55853, Start Num: 18
Candidate Starts for Jinglebell_107:
(Start: 18 @55692 has 89 MA's),

Gene: Job42_101 Start: 56590, Stop: 56751, Start Num: 18
Candidate Starts for Job42_101:
(Start: 18 @56590 has 89 MA's),

Gene: JoeDirt_98 Start: 60423, Stop: 60590, Start Num: 14
Candidate Starts for JoeDirt_98:
(3, 60309), (7, 60363), (9, 60378), (12, 60414), (Start: 14 @60423 has 10 MA's), (21, 60477),

Gene: Jubie_97 Start: 61625, Stop: 61801, Start Num: 15
Candidate Starts for Jubie_97:
(7, 61565), (Start: 15 @61625 has 20 MA's), (22, 61724),

Gene: Kahlid_99 Start: 61290, Stop: 61460, Start Num: 15
Candidate Starts for Kahlid_99:
(Start: 15 @61290 has 20 MA's), (20, 61323),

Gene: Karhdo_95 Start: 52179, Stop: 52340, Start Num: 18

Candidate Starts for Karhdo_95:
(Start: 18 @52179 has 89 MA's),

Gene: Kenuha5_92 Start: 53592, Stop: 53753, Start Num: 18
Candidate Starts for Kenuha5_92:
(Start: 18 @53592 has 89 MA's),

Gene: Kingsley_109 Start: 57777, Stop: 57938, Start Num: 18
Candidate Starts for Kingsley_109:
(Start: 18 @57777 has 89 MA's),

Gene: Koella_93 Start: 51178, Stop: 51339, Start Num: 18
Candidate Starts for Koella_93:
(Start: 18 @51178 has 89 MA's),

Gene: KristaRAM_108 Start: 55500, Stop: 55661, Start Num: 18
Candidate Starts for KristaRAM_108:
(Start: 18 @55500 has 89 MA's),

Gene: Krypton555_100 Start: 61911, Stop: 62087, Start Num: 15
Candidate Starts for Krypton555_100:
(Start: 15 @61911 has 20 MA's),

Gene: LastJedi_91 Start: 52235, Stop: 52396, Start Num: 18
Candidate Starts for LastJedi_91:
(Start: 18 @52235 has 89 MA's),

Gene: LilDestine_98 Start: 61249, Stop: 61419, Start Num: 15
Candidate Starts for LilDestine_98:
(Start: 15 @61249 has 20 MA's), (20, 61282),

Gene: LittleShirley_107 Start: 55612, Stop: 55773, Start Num: 18
Candidate Starts for LittleShirley_107:
(Start: 18 @55612 has 89 MA's),

Gene: Lizziana_101 Start: 55483, Stop: 55644, Start Num: 18
Candidate Starts for Lizziana_101:
(Start: 18 @55483 has 89 MA's),

Gene: Llama_107 Start: 55335, Stop: 55496, Start Num: 18
Candidate Starts for Llama_107:
(Start: 18 @55335 has 89 MA's),

Gene: MAckerman_93 Start: 58741, Stop: 58914, Start Num: 14
Candidate Starts for MAckerman_93:
(3, 58627), (7, 58681), (9, 58696), (12, 58732), (Start: 14 @58741 has 10 MA's), (21, 58795), (26, 58903),

Gene: Maravista_97 Start: 56143, Stop: 56304, Start Num: 18
Candidate Starts for Maravista_97:
(Start: 18 @56143 has 89 MA's),

Gene: Martik_99 Start: 55946, Stop: 56107, Start Num: 18

Candidate Starts for Martik_99:
(Start: 18 @55946 has 89 MA's),

Gene: Melissauren88_90 Start: 50968, Stop: 51129, Start Num: 18
Candidate Starts for Melissauren88_90:
(Start: 18 @50968 has 89 MA's),

Gene: MilanaBonita_93 Start: 52864, Stop: 53025, Start Num: 18
Candidate Starts for MilanaBonita_93:
(Start: 18 @52864 has 89 MA's),

Gene: MilleniumForce_100 Start: 54671, Stop: 54832, Start Num: 18
Candidate Starts for MilleniumForce_100:
(Start: 18 @54671 has 89 MA's),

Gene: MisterCuddles_100 Start: 54813, Stop: 54974, Start Num: 18
Candidate Starts for MisterCuddles_100:
(Start: 18 @54813 has 89 MA's),

Gene: Mova_102 Start: 54601, Stop: 54762, Start Num: 18
Candidate Starts for Mova_102:
(Start: 18 @54601 has 89 MA's),

Gene: Mozy_104 Start: 54236, Stop: 54397, Start Num: 18
Candidate Starts for Mozy_104:
(Start: 18 @54236 has 89 MA's),

Gene: Ms6_102 Start: 50859, Stop: 51020, Start Num: 18
Candidate Starts for Ms6_102:
(Start: 18 @50859 has 89 MA's),

Gene: MsGreen_98 Start: 61489, Stop: 61665, Start Num: 15
Candidate Starts for MsGreen_98:
(7, 61429), (Start: 15 @61489 has 20 MA's), (22, 61588),

Gene: Mutaforma13_101 Start: 54270, Stop: 54431, Start Num: 18
Candidate Starts for Mutaforma13_101:
(Start: 18 @54270 has 89 MA's),

Gene: Nicholasp3_100 Start: 61372, Stop: 61542, Start Num: 15
Candidate Starts for Nicholasp3_100:
(Start: 15 @61372 has 20 MA's), (20, 61405),

Gene: Nitzel_94 Start: 51429, Stop: 51590, Start Num: 18
Candidate Starts for Nitzel_94:
(Start: 18 @51429 has 89 MA's),

Gene: NormanBulbieJr_98 Start: 55192, Stop: 55353, Start Num: 18
Candidate Starts for NormanBulbieJr_98:
(Start: 18 @55192 has 89 MA's),

Gene: Ochi17_106 Start: 54930, Stop: 55091, Start Num: 18
Candidate Starts for Ochi17_106:

(Start: 18 @54930 has 89 MA's),

Gene: OfUltron_107 Start: 55479, Stop: 55640, Start Num: 18

Candidate Starts for OfUltron_107:

(Start: 18 @55479 has 89 MA's),

Gene: Oksu_104 Start: 56569, Stop: 56730, Start Num: 18

Candidate Starts for Oksu_104:

(Start: 18 @56569 has 89 MA's),

Gene: OlympiaSaint_104 Start: 55382, Stop: 55543, Start Num: 18

Candidate Starts for OlympiaSaint_104:

(1, 55163), (2, 55220), (10, 55340), (Start: 18 @55382 has 89 MA's),

Gene: Phalconet_101 Start: 54261, Stop: 54422, Start Num: 18

Candidate Starts for Phalconet_101:

(Start: 18 @54261 has 89 MA's),

Gene: Phanphagia_105 Start: 56016, Stop: 56177, Start Num: 18

Candidate Starts for Phanphagia_105:

(Start: 18 @56016 has 89 MA's),

Gene: PhesterPhotato_103 Start: 54235, Stop: 54396, Start Num: 18

Candidate Starts for PhesterPhotato_103:

(Start: 18 @54235 has 89 MA's),

Gene: Philus_104 Start: 56323, Stop: 56484, Start Num: 18

Candidate Starts for Philus_104:

(Start: 18 @56323 has 89 MA's),

Gene: Pippy_98 Start: 53463, Stop: 53624, Start Num: 18

Candidate Starts for Pippy_98:

(Start: 18 @53463 has 89 MA's),

Gene: Priscilla_101 Start: 55290, Stop: 55451, Start Num: 18

Candidate Starts for Priscilla_101:

(Start: 18 @55290 has 89 MA's),

Gene: Quico_109 Start: 56144, Stop: 56305, Start Num: 18

Candidate Starts for Quico_109:

(Start: 18 @56144 has 89 MA's),

Gene: Rita_100 Start: 55860, Stop: 56021, Start Num: 18

Candidate Starts for Rita_100:

(Start: 18 @55860 has 89 MA's),

Gene: Rose5_98 Start: 60265, Stop: 60432, Start Num: 14

Candidate Starts for Rose5_98:

(3, 60151), (7, 60205), (9, 60220), (12, 60256), (Start: 14 @60265 has 10 MA's), (21, 60319),

Gene: Royals2015_104 Start: 53395, Stop: 53556, Start Num: 18

Candidate Starts for Royals2015_104:

(Start: 18 @53395 has 89 MA's),

Gene: Rumpelstiltskin_96 Start: 61165, Stop: 61335, Start Num: 15
Candidate Starts for Rumpelstiltskin_96:
(Start: 15 @61165 has 20 MA's), (20, 61198),

Gene: SG4_101 Start: 55629, Stop: 55790, Start Num: 18
Candidate Starts for SG4_101:
(Start: 18 @55629 has 89 MA's),

Gene: Sabbb_103 Start: 52820, Stop: 52981, Start Num: 18
Candidate Starts for Sabbb_103:
(1, 52601), (2, 52658), (10, 52778), (Start: 18 @52820 has 89 MA's),

Gene: Samty_97 Start: 61587, Stop: 61763, Start Num: 15
Candidate Starts for Samty_97:
(7, 61527), (Start: 15 @61587 has 20 MA's), (22, 61686),

Gene: Sarma624_102 Start: 51789, Stop: 51950, Start Num: 18
Candidate Starts for Sarma624_102:
(Start: 18 @51789 has 89 MA's),

Gene: Seabastian_107 Start: 55480, Stop: 55641, Start Num: 18
Candidate Starts for Seabastian_107:
(Start: 18 @55480 has 89 MA's),

Gene: Seagreen_101 Start: 54767, Stop: 54928, Start Num: 18
Candidate Starts for Seagreen_101:
(Start: 18 @54767 has 89 MA's),

Gene: Shauna1_102 Start: 55632, Stop: 55793, Start Num: 18
Candidate Starts for Shauna1_102:
(Start: 18 @55632 has 89 MA's),

Gene: ShowerHandel_98 Start: 54136, Stop: 54297, Start Num: 18
Candidate Starts for ShowerHandel_98:
(Start: 18 @54136 has 89 MA's),

Gene: ShroomBoi_98 Start: 54184, Stop: 54345, Start Num: 18
Candidate Starts for ShroomBoi_98:
(Start: 18 @54184 has 89 MA's),

Gene: Silverleaf_95 Start: 59405, Stop: 59572, Start Num: 17
Candidate Starts for Silverleaf_95:
(3, 59279), (7, 59333), (9, 59348), (12, 59384), (16, 59396), (Start: 17 @59405 has 4 MA's), (21, 59459),

Gene: StAnnes_104 Start: 55680, Stop: 55841, Start Num: 18
Candidate Starts for StAnnes_104:
(Start: 18 @55680 has 89 MA's),

Gene: Stap_95 Start: 51396, Stop: 51557, Start Num: 18
Candidate Starts for Stap_95:
(10, 51354), (Start: 18 @51396 has 89 MA's),

Gene: SwagPiggett_102 Start: 55990, Stop: 56151, Start Num: 18
Candidate Starts for SwagPiggett_102:
(Start: 18 @55990 has 89 MA's),

Gene: Taj_106 Start: 55638, Stop: 55799, Start Num: 18
Candidate Starts for Taj_106:
(Start: 18 @55638 has 89 MA's),

Gene: Tootsieroll_94 Start: 54782, Stop: 54943, Start Num: 18
Candidate Starts for Tootsieroll_94:
(Start: 18 @54782 has 89 MA's),

Gene: Tweety_101 Start: 55032, Stop: 55193, Start Num: 18
Candidate Starts for Tweety_101:
(Start: 18 @55032 has 89 MA's),

Gene: Tyson_98 Start: 60158, Stop: 60331, Start Num: 14
Candidate Starts for Tyson_98:
(3, 60044), (7, 60098), (9, 60113), (12, 60149), (Start: 14 @60158 has 10 MA's), (21, 60212), (26, 60320),

Gene: UPIE_95 Start: 59398, Stop: 59571, Start Num: 17
Candidate Starts for UPIE_95:
(3, 59272), (9, 59341), (12, 59377), (16, 59389), (Start: 17 @59398 has 4 MA's), (21, 59452), (26, 59560),

Gene: VRedHorse_101 Start: 51888, Stop: 52049, Start Num: 18
Candidate Starts for VRedHorse_101:
(Start: 18 @51888 has 89 MA's),

Gene: Velveteen_97 Start: 51789, Stop: 51950, Start Num: 18
Candidate Starts for Velveteen_97:
(Start: 18 @51789 has 89 MA's),

Gene: Wee_103 Start: 55714, Stop: 55875, Start Num: 18
Candidate Starts for Wee_103:
(Start: 18 @55714 has 89 MA's),

Gene: Whatsapiecost_94 Start: 49439, Stop: 49600, Start Num: 18
Candidate Starts for Whatsapiecost_94:
(Start: 18 @49439 has 89 MA's),

Gene: Wyatt2_97 Start: 59821, Stop: 59994, Start Num: 14
Candidate Starts for Wyatt2_97:
(3, 59707), (7, 59761), (9, 59776), (12, 59812), (Start: 14 @59821 has 10 MA's), (21, 59875), (26, 59983),

Gene: XFactor_91 Start: 52230, Stop: 52391, Start Num: 18
Candidate Starts for XFactor_91:
(Start: 18 @52230 has 89 MA's),

Gene: Zakai_101 Start: 61981, Stop: 62151, Start Num: 15

Candidate Starts for Zakai_101:
(Start: 15 @61981 has 20 MA's), (20, 62014),

Gene: Zaria_97 Start: 59297, Stop: 59470, Start Num: 14
Candidate Starts for Zaria_97:
(3, 59183), (7, 59237), (9, 59252), (12, 59288), (Start: 14 @59297 has 10 MA's), (21, 59351), (26, 59459),

Gene: Zerg_98 Start: 54105, Stop: 54266, Start Num: 18
Candidate Starts for Zerg_98:
(Start: 18 @54105 has 89 MA's),

Gene: Zizzle_103 Start: 56181, Stop: 56342, Start Num: 18
Candidate Starts for Zizzle_103:
(Start: 18 @56181 has 89 MA's),