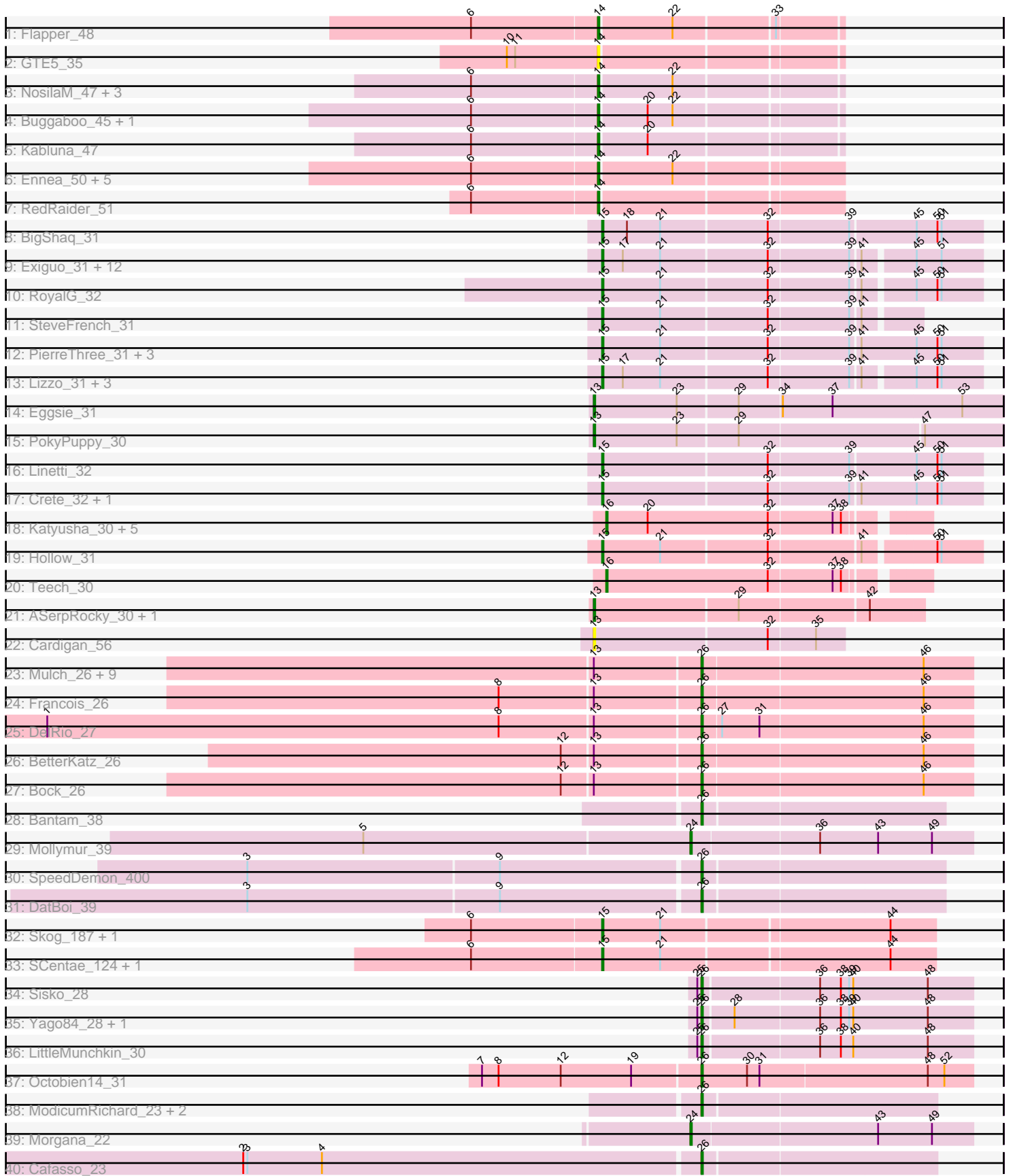


Pham 294630



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 294630 Report

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

Pham number 294630 has 88 members, 5 are drafts.

Phages represented in each track:

- Track 1 : Flapper_48
- Track 2 : GTE5_35
- Track 3 : NosilaM_47, StarStruck_45, MerCougar_45, Outis_45
- Track 4 : Buggaboo_45, SuperSulley_45
- Track 5 : Kabluna_47
- Track 6 : Ennea_50, Patio_47, Skysand_46, Lollipop1437_49, Bonum_47, Float294_46
- Track 7 : RedRaider_51
- Track 8 : BigShaq_31
- Track 9 : Exiguo_31, RemRem_32, Monty_30, Worcestershire_31, Squibbles_31, Flakey_31, Ekhein_31, GourdThymes_31, Breezic_31, Sam12_31, Hotorobo_31, Gorko_31, Kelzog_31
- Track 10 : RoyalG_32
- Track 11 : SteveFrench_31
- Track 12 : PierreThree_31, Chelms_31, Sombrero_31, Dakiti_31
- Track 13 : Lizzo_31, Adgers_32, CathyBurgh_31, Barbochs_31
- Track 14 : Eggsie_31
- Track 15 : PokyPuppy_30
- Track 16 : Linetti_32
- Track 17 : Crete_32, BenoitCattle_31
- Track 18 : Katyusha_30, Tredge_30, Teatealatte_30, Benczkowski14_30, Kvothe_30, Niagara_30
- Track 19 : Hollow_31
- Track 20 : Teech_30
- Track 21 : ASerpRocky_30, Demosthenes_30
- Track 22 : Cardigan_56
- Track 23 : Mulch_26, Chop_26, Parada_26, WheatThin_26, Nadeem_26, Ayotoya_26, Brylie_26, NancyRae_26, GrandSlam_26, Hamood_26
- Track 24 : Francois_26
- Track 25 : DelRio_27
- Track 26 : BetterKatz_26
- Track 27 : Bock_26
- Track 28 : Bantam_38
- Track 29 : Mollymur_39
- Track 30 : SpeedDemon_400
- Track 31 : DatBoi_39
- Track 32 : Skog_187, Pupper_125

- Track 33 : SCentae_124, CherryTomatoes_124
- Track 34 : Sisko_28
- Track 35 : Yago84_28, AnClar_29
- Track 36 : LittleMunchkin_30
- Track 37 : Octobien14_31
- Track 38 : ModicumRichard_23, ObLaDi_23, Aleemily_22
- Track 39 : Morgana_22
- Track 40 : Cafasso_23

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

The start number called the most often in the published annotations is 15, it was called in 29 of the 83 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Adgers_32, Barbochs_31, BenoitCattle_31, BigShaq_31, Breezic_31, CathyBurgh_31, Chelms_31, CherryTomatoes_124, Crete_32, Dakiti_31, Ekhein_31, Exiguo_31, Flakey_31, Gorko_31, GourdThymes_31, Hollow_31, Hotorobo_31, Kelzog_31, Linetti_32, Lizzo_31, Monty_30, PierreThree_31, Pupper_125, RemRem_32, RoyalG_32, SCentae_124, Sam12_31, Skog_187, Sombrero_31, Squibbles_31, SteveFrench_31, Worcestershire_31,

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

-

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

- ASerpRocky_30, Aleemily_22, AnClar_29, Ayotoya_26, Bantam_38, Benczkowski14_30, BetterKatz_26, Bock_26, Bonum_47, Brylie_26, Buggaboo_45, Cafasso_23, Cardigan_56, Chop_26, DatBoi_39, DelRio_27, Demosthenes_30, Eggsie_31, Ennea_50, Flapper_48, Float294_46, Francois_26, GTE5_35, GrandSlam_26, Hamood_26, Kabluna_47, Katyusha_30, Kvothe_30, LittleMunchkin_30, Lollipop1437_49, MerCougar_45, ModicumRichard_23, Mollymur_39, Morgana_22, Mulch_26, Nadeem_26, NancyRae_26, Niagara_30, NosilaM_47, ObLaDi_23, Octobien14_31, Outis_45, Parada_26, Patio_47, PokyPuppy_30, RedRaider_51, Sisko_28, Skysand_46, SpeedDemon_400, StarStruck_45, SuperSulley_45, Teatealatte_30, Teech_30, Tredge_30, WheatThin_26, Yago84_28,

Summary by start number:

Start 13:

- Found in 19 of 88 (21.6%) of genes in pham
- Manual Annotations of this start: 4 of 83
- Called 26.3% of time when present
- Phage (with cluster) where this start called: ASerpRocky_30 (CS4), Cardigan_56 (DD), Demosthenes_30 (CS4), Eggsie_31 (CS2), PokyPuppy_30 (CS2),

Start 14:

- Found in 16 of 88 (18.2%) of genes in pham
- Manual Annotations of this start: 15 of 83

- Called 100.0% of time when present
- Phage (with cluster) where this start called: Bonum_47 (CR2), Buggaboo_45 (CR2), Ennea_50 (CR3), Flapper_48 (CR1), Float294_46 (CR3), GTE5_35 (CR1), Kabluna_47 (CR2), Lollipop1437_49 (CR3), MerCougar_45 (CR2), NosilaM_47 (CR2), Outis_45 (CR2), Patio_47 (CR3), RedRaider_51 (CR3), Skysand_46 (CR3), StarStruck_45 (CR2), SuperSulley_45 (CR2),

Start 15:

- Found in 32 of 88 (36.4%) of genes in pham
- Manual Annotations of this start: 29 of 83
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Adgers_32 (CS2), Barbochs_31 (CS2), BenoitCattle_31 (CS2), BigShaq_31 (CS2), Breezic_31 (CS2), CathyBurgh_31 (CS2), Chelms_31 (CS2), CherryTomatoes_124 (DO), Crete_32 (CS2), Dakiti_31 (CS2), Ekhein_31 (CS2), Exiguo_31 (CS2), Flakey_31 (CS2), Gorko_31 (CS2), GourdThymes_31 (CS2), Hollow_31 (CS4), Hotorobo_31 (CS2), Kelzog_31 (CS2), Linetti_32 (CS2), Lizzo_31 (CS2), Monty_30 (CS2), PierreThree_31 (CS2), Pupper_125 (DO), RemRem_32 (CS2), RoyalG_32 (CS2), SCentae_124 (DO), Sam12_31 (CS2), Skog_187 (DO), Sombrero_31 (CS2), Squibbles_31 (CS2), SteveFrench_31 (CS2), Worcestershire_31 (CS2),

Start 16:

- Found in 7 of 88 (8.0%) of genes in pham
- Manual Annotations of this start: 7 of 83
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Benczkowski14_30 (CS4), Katyusha_30 (CS4), Kvothe_30 (CS4), Niagara_30 (CS4), Teatealatte_30 (CS4), Teech_30 (CS4), Tredge_30 (CS4),

Start 24:

- Found in 2 of 88 (2.3%) of genes in pham
- Manual Annotations of this start: 2 of 83
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Mollymur_39 (DL), Morgana_22 (DZ),

Start 26:

- Found in 26 of 88 (29.5%) of genes in pham
- Manual Annotations of this start: 26 of 83
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Aleemily_22 (DZ), AnClar_29 (DR), Ayotoya_26 (DI), Bantam_38 (DL), BetterKatz_26 (DI), Bock_26 (DI), Brylie_26 (DI), Cafasso_23 (DZ), Chop_26 (DI), DatBoi_39 (DL), DelRio_27 (DI), Francois_26 (DI), GrandSlam_26 (DI), Hamood_26 (DI), LittleMunchkin_30 (DR), ModicumRichard_23 (DZ), Mulch_26 (DI), Nadeem_26 (DI), NancyRae_26 (DI), ObLaDi_23 (DZ), Octobien14_31 (DU1), Parada_26 (DI), Sisko_28 (DR), SpeedDemon_400 (DL), WheatThin_26 (DI), Yago84_28 (DR),

Summary by clusters:

There are 12 clusters represented in this pham: CR2, CR3, DL, CR1, DI, DD, DO, DZ, DU1, CS4, DR, CS2,

Info for manual annotations of cluster CR1:

- Start number 14 was manually annotated 1 time for cluster CR1.

Info for manual annotations of cluster CR2:

- Start number 14 was manually annotated 8 times for cluster CR2.

Info for manual annotations of cluster CR3:

- Start number 14 was manually annotated 6 times for cluster CR3.

Info for manual annotations of cluster CS2:

- Start number 13 was manually annotated 2 times for cluster CS2.
- Start number 15 was manually annotated 24 times for cluster CS2.

Info for manual annotations of cluster CS4:

- Start number 13 was manually annotated 2 times for cluster CS4.
- Start number 15 was manually annotated 1 time for cluster CS4.
- Start number 16 was manually annotated 7 times for cluster CS4.

Info for manual annotations of cluster DI:

- Start number 26 was manually annotated 14 times for cluster DI.

Info for manual annotations of cluster DL:

- Start number 24 was manually annotated 1 time for cluster DL.
- Start number 26 was manually annotated 3 times for cluster DL.

Info for manual annotations of cluster DO:

- Start number 15 was manually annotated 4 times for cluster DO.

Info for manual annotations of cluster DR:

- Start number 26 was manually annotated 4 times for cluster DR.

Info for manual annotations of cluster DU1:

- Start number 26 was manually annotated 1 time for cluster DU1.

Info for manual annotations of cluster DZ:

- Start number 24 was manually annotated 1 time for cluster DZ.
- Start number 26 was manually annotated 4 times for cluster DZ.

Gene Information:

Gene: ASerpRocky_30 Start: 38766, Stop: 38996, Start Num: 13

Candidate Starts for ASerpRocky_30:

(Start: 13 @38766 has 4 MA's), (29, 38868), (42, 38958),

Gene: Adgers_32 Start: 37251, Stop: 37511, Start Num: 15

Candidate Starts for Adgers_32:

(Start: 15 @37251 has 29 MA's), (17, 37266), (21, 37293), (32, 37368), (39, 37425), (41, 37431), (45, 37464), (50, 37479), (51, 37482),

Gene: Aleemily_22 Start: 20882, Stop: 21043, Start Num: 26

Candidate Starts for Aleemily_22:

(Start: 26 @20882 has 26 MA's),

Gene: AnClar_29 Start: 30143, Stop: 30334, Start Num: 26

Candidate Starts for AnClar_29:

(25, 30140), (Start: 26 @30143 has 26 MA's), (28, 30164), (36, 30224), (38, 30239), (39, 30245), (40, 30248), (48, 30302),

Gene: Ayotoya_26 Start: 23908, Stop: 24099, Start Num: 26

Candidate Starts for Ayotoya_26:

(Start: 13 @23833 has 4 MA's), (Start: 26 @23908 has 26 MA's), (46, 24064),

Gene: Bantam_38 Start: 34680, Stop: 34850, Start Num: 26

Candidate Starts for Bantam_38:

(Start: 26 @34680 has 26 MA's),

Gene: Barbochs_31 Start: 37089, Stop: 37349, Start Num: 15

Candidate Starts for Barbochs_31:

(Start: 15 @37089 has 29 MA's), (17, 37104), (21, 37131), (32, 37206), (39, 37263), (41, 37269), (45, 37302), (50, 37317), (51, 37320),

Gene: Benczkowski14_30 Start: 38816, Stop: 39034, Start Num: 16

Candidate Starts for Benczkowski14_30:

(Start: 16 @38816 has 7 MA's), (20, 38846), (32, 38933), (37, 38978), (38, 38984),

Gene: BenoitCattle_31 Start: 37186, Stop: 37452, Start Num: 15

Candidate Starts for BenoitCattle_31:

(Start: 15 @37186 has 29 MA's), (32, 37303), (39, 37360), (41, 37366), (45, 37405), (50, 37420), (51, 37423),

Gene: BetterKatz_26 Start: 23381, Stop: 23572, Start Num: 26

Candidate Starts for BetterKatz_26:

(12, 23285), (Start: 13 @23306 has 4 MA's), (Start: 26 @23381 has 26 MA's), (46, 23537),

Gene: BigShaq_31 Start: 37191, Stop: 37457, Start Num: 15

Candidate Starts for BigShaq_31:

(Start: 15 @37191 has 29 MA's), (18, 37209), (21, 37233), (32, 37308), (39, 37365), (45, 37410), (50, 37425), (51, 37428),

Gene: Bock_26 Start: 23131, Stop: 23322, Start Num: 26

Candidate Starts for Bock_26:

(12, 23035), (Start: 13 @23056 has 4 MA's), (Start: 26 @23131 has 26 MA's), (46, 23287),

Gene: Bonum_47 Start: 35475, Stop: 35639, Start Num: 14

Candidate Starts for Bonum_47:

(6, 35385), (Start: 14 @35475 has 15 MA's), (22, 35526),

Gene: Breezic_31 Start: 37103, Stop: 37363, Start Num: 15

Candidate Starts for Breezic_31:

(Start: 15 @37103 has 29 MA's), (17, 37118), (21, 37145), (32, 37220), (39, 37277), (41, 37283), (45, 37316), (51, 37334),

Gene: Brylie_26 Start: 23122, Stop: 23313, Start Num: 26

Candidate Starts for Brylie_26:

(Start: 13 @23047 has 4 MA's), (Start: 26 @23122 has 26 MA's), (46, 23278),

Gene: Buggaboo_45 Start: 35954, Stop: 36118, Start Num: 14

Candidate Starts for Buggaboo_45:

(6, 35864), (Start: 14 @35954 has 15 MA's), (20, 35987), (22, 36005),

Gene: Cafasso_23 Start: 21455, Stop: 21619, Start Num: 26

Candidate Starts for Cafasso_23:

(2, 21128), (3, 21131), (4, 21185), (Start: 26 @21455 has 26 MA's),

Gene: Cardigan_56 Start: 40897, Stop: 41073, Start Num: 13

Candidate Starts for Cardigan_56:

(Start: 13 @40897 has 4 MA's), (32, 41020), (35, 41053),

Gene: CathyBurgh_31 Start: 37957, Stop: 38217, Start Num: 15

Candidate Starts for CathyBurgh_31:

(Start: 15 @37957 has 29 MA's), (17, 37972), (21, 37999), (32, 38074), (39, 38131), (41, 38137), (45, 38170), (50, 38185), (51, 38188),

Gene: Chelms_31 Start: 37194, Stop: 37460, Start Num: 15

Candidate Starts for Chelms_31:

(Start: 15 @37194 has 29 MA's), (21, 37236), (32, 37311), (39, 37368), (41, 37374), (45, 37413), (50, 37428), (51, 37431),

Gene: CherryTomatoes_124 Start: 82121, Stop: 82354, Start Num: 15

Candidate Starts for CherryTomatoes_124:

(6, 82028), (Start: 15 @82121 has 29 MA's), (21, 82163), (44, 82322),

Gene: Chop_26 Start: 23656, Stop: 23847, Start Num: 26

Candidate Starts for Chop_26:

(Start: 13 @23581 has 4 MA's), (Start: 26 @23656 has 26 MA's), (46, 23812),

Gene: Crete_32 Start: 37457, Stop: 37723, Start Num: 15

Candidate Starts for Crete_32:

(Start: 15 @37457 has 29 MA's), (32, 37574), (39, 37631), (41, 37637), (45, 37676), (50, 37691), (51, 37694),

Gene: Dakiti_31 Start: 38062, Stop: 38328, Start Num: 15

Candidate Starts for Dakiti_31:

(Start: 15 @38062 has 29 MA's), (21, 38104), (32, 38179), (39, 38236), (41, 38242), (45, 38281), (50, 38296), (51, 38299),

Gene: DatBoi_39 Start: 35338, Stop: 35508, Start Num: 26

Candidate Starts for DatBoi_39:

(3, 35017), (9, 35197), (Start: 26 @35338 has 26 MA's),

Gene: DelRio_27 Start: 24130, Stop: 24321, Start Num: 26

Candidate Starts for DelRio_27:

(1, 23662), (8, 23989), (Start: 13 @24055 has 4 MA's), (Start: 26 @24130 has 26 MA's), (27, 24142), (31, 24169), (46, 24286),

Gene: Demosthenes_30 Start: 38739, Stop: 38969, Start Num: 13

Candidate Starts for Demosthenes_30:

(Start: 13 @38739 has 4 MA's), (29, 38841), (42, 38931),

Gene: Eggsie_31 Start: 37210, Stop: 37500, Start Num: 13

Candidate Starts for Eggsie_31:

(Start: 13 @37210 has 4 MA's), (23, 37270), (29, 37312), (34, 37342), (37, 37378), (53, 37471),

Gene: Ekhein_31 Start: 37085, Stop: 37345, Start Num: 15

Candidate Starts for Ekhein_31:

(Start: 15 @37085 has 29 MA's), (17, 37100), (21, 37127), (32, 37202), (39, 37259), (41, 37265), (45, 37298), (51, 37316),

Gene: Ennea_50 Start: 36803, Stop: 36970, Start Num: 14

Candidate Starts for Ennea_50:

(6, 36713), (Start: 14 @36803 has 15 MA's), (22, 36854),

Gene: Exiguo_31 Start: 37097, Stop: 37357, Start Num: 15

Candidate Starts for Exiguo_31:

(Start: 15 @37097 has 29 MA's), (17, 37112), (21, 37139), (32, 37214), (39, 37271), (41, 37277), (45, 37310), (51, 37328),

Gene: Flakey_31 Start: 37961, Stop: 38221, Start Num: 15

Candidate Starts for Flakey_31:

(Start: 15 @37961 has 29 MA's), (17, 37976), (21, 38003), (32, 38078), (39, 38135), (41, 38141), (45, 38174), (51, 38192),

Gene: Flapper_48 Start: 36518, Stop: 36682, Start Num: 14

Candidate Starts for Flapper_48:

(6, 36428), (Start: 14 @36518 has 15 MA's), (22, 36569), (33, 36638),

Gene: Float294_46 Start: 36245, Stop: 36412, Start Num: 14

Candidate Starts for Float294_46:

(6, 36155), (Start: 14 @36245 has 15 MA's), (22, 36296),

Gene: Francois_26 Start: 23145, Stop: 23336, Start Num: 26

Candidate Starts for Francois_26:

(8, 23004), (Start: 13 @23070 has 4 MA's), (Start: 26 @23145 has 26 MA's), (46, 23301),

Gene: GTE5_35 Start: 29375, Stop: 29539, Start Num: 14

Candidate Starts for GTE5_35:

(10, 29309), (11, 29315), (Start: 14 @29375 has 15 MA's),

Gene: Gorko_31 Start: 37089, Stop: 37349, Start Num: 15

Candidate Starts for Gorko_31:

(Start: 15 @37089 has 29 MA's), (17, 37104), (21, 37131), (32, 37206), (39, 37263), (41, 37269), (45, 37302), (51, 37320),

Gene: GourdThymes_31 Start: 37963, Stop: 38223, Start Num: 15

Candidate Starts for GourdThymes_31:

(Start: 15 @37963 has 29 MA's), (17, 37978), (21, 38005), (32, 38080), (39, 38137), (41, 38143), (45, 38176), (51, 38194),

Gene: GrandSlam_26 Start: 23656, Stop: 23847, Start Num: 26

Candidate Starts for GrandSlam_26:

(Start: 13 @23581 has 4 MA's), (Start: 26 @23656 has 26 MA's), (46, 23812),

Gene: Hamood_26 Start: 23656, Stop: 23847, Start Num: 26

Candidate Starts for Hamood_26:

(Start: 13 @23581 has 4 MA's), (Start: 26 @23656 has 26 MA's), (46, 23812),

Gene: Hollow_31 Start: 39132, Stop: 39392, Start Num: 15

Candidate Starts for Hollow_31:

(Start: 15 @39132 has 29 MA's), (21, 39174), (32, 39249), (41, 39312), (50, 39360), (51, 39363),

Gene: Hotorobo_31 Start: 37968, Stop: 38228, Start Num: 15

Candidate Starts for Hotorobo_31:

(Start: 15 @37968 has 29 MA's), (17, 37983), (21, 38010), (32, 38085), (39, 38142), (41, 38148), (45, 38181), (51, 38199),

Gene: Kabluna_47 Start: 34890, Stop: 35054, Start Num: 14

Candidate Starts for Kabluna_47:

(6, 34800), (Start: 14 @34890 has 15 MA's), (20, 34923),

Gene: Katyusha_30 Start: 38816, Stop: 39034, Start Num: 16

Candidate Starts for Katyusha_30:

(Start: 16 @38816 has 7 MA's), (20, 38846), (32, 38933), (37, 38978), (38, 38984),

Gene: Kelzog_31 Start: 37975, Stop: 38235, Start Num: 15

Candidate Starts for Kelzog_31:

(Start: 15 @37975 has 29 MA's), (17, 37990), (21, 38017), (32, 38092), (39, 38149), (41, 38155), (45, 38188), (51, 38206),

Gene: Kvothe_30 Start: 38715, Stop: 38933, Start Num: 16

Candidate Starts for Kvothe_30:

(Start: 16 @38715 has 7 MA's), (20, 38745), (32, 38832), (37, 38877), (38, 38883),

Gene: Linetti_32 Start: 38188, Stop: 38454, Start Num: 15

Candidate Starts for Linetti_32:

(Start: 15 @38188 has 29 MA's), (32, 38305), (39, 38362), (45, 38407), (50, 38422), (51, 38425),

Gene: LittleMunchkin_30 Start: 30714, Stop: 30905, Start Num: 26

Candidate Starts for LittleMunchkin_30:

(25, 30711), (Start: 26 @30714 has 26 MA's), (36, 30795), (38, 30810), (40, 30819), (48, 30873),

Gene: Lizzo_31 Start: 37957, Stop: 38217, Start Num: 15

Candidate Starts for Lizzo_31:

(Start: 15 @37957 has 29 MA's), (17, 37972), (21, 37999), (32, 38074), (39, 38131), (41, 38137), (45, 38170), (50, 38185), (51, 38188),

Gene: Lollipop1437_49 Start: 36791, Stop: 36958, Start Num: 14

Candidate Starts for Lollipop1437_49:

(6, 36701), (Start: 14 @36791 has 15 MA's), (22, 36842),

Gene: MerCougar_45 Start: 36074, Stop: 36238, Start Num: 14

Candidate Starts for MerCougar_45:

(6, 35984), (Start: 14 @36074 has 15 MA's), (22, 36125),

Gene: ModicumRichard_23 Start: 21455, Stop: 21619, Start Num: 26
Candidate Starts for ModicumRichard_23:
(Start: 26 @21455 has 26 MA's),

Gene: Mollymur_39 Start: 35807, Stop: 36007, Start Num: 24
Candidate Starts for Mollymur_39:
(5, 35573), (Start: 24 @35807 has 2 MA's), (36, 35897), (43, 35939), (49, 35978),

Gene: Monty_30 Start: 37107, Stop: 37367, Start Num: 15
Candidate Starts for Monty_30:
(Start: 15 @37107 has 29 MA's), (17, 37122), (21, 37149), (32, 37224), (39, 37281), (41, 37287), (45, 37320), (51, 37338),

Gene: Morgana_22 Start: 20847, Stop: 21047, Start Num: 24
Candidate Starts for Morgana_22:
(Start: 24 @20847 has 2 MA's), (43, 20979), (49, 21018),

Gene: Mulch_26 Start: 23122, Stop: 23313, Start Num: 26
Candidate Starts for Mulch_26:
(Start: 13 @23047 has 4 MA's), (Start: 26 @23122 has 26 MA's), (46, 23278),

Gene: Nadeem_26 Start: 23122, Stop: 23313, Start Num: 26
Candidate Starts for Nadeem_26:
(Start: 13 @23047 has 4 MA's), (Start: 26 @23122 has 26 MA's), (46, 23278),

Gene: NancyRae_26 Start: 23128, Stop: 23319, Start Num: 26
Candidate Starts for NancyRae_26:
(Start: 13 @23053 has 4 MA's), (Start: 26 @23128 has 26 MA's), (46, 23284),

Gene: Niagara_30 Start: 38773, Stop: 38991, Start Num: 16
Candidate Starts for Niagara_30:
(Start: 16 @38773 has 7 MA's), (20, 38803), (32, 38890), (37, 38935), (38, 38941),

Gene: NosilaM_47 Start: 35787, Stop: 35951, Start Num: 14
Candidate Starts for NosilaM_47:
(6, 35697), (Start: 14 @35787 has 15 MA's), (22, 35838),

Gene: ObLaDi_23 Start: 21434, Stop: 21595, Start Num: 26
Candidate Starts for ObLaDi_23:
(Start: 26 @21434 has 26 MA's),

Gene: Octobien14_31 Start: 26466, Stop: 26660, Start Num: 26
Candidate Starts for Octobien14_31:
(7, 26310), (8, 26322), (12, 26367), (19, 26418), (Start: 26 @26466 has 26 MA's), (30, 26499), (31, 26508), (48, 26628), (52, 26640),

Gene: Outis_45 Start: 35768, Stop: 35932, Start Num: 14
Candidate Starts for Outis_45:
(6, 35678), (Start: 14 @35768 has 15 MA's), (22, 35819),

Gene: Parada_26 Start: 23122, Stop: 23313, Start Num: 26
Candidate Starts for Parada_26:
(Start: 13 @23047 has 4 MA's), (Start: 26 @23122 has 26 MA's), (46, 23278),

Gene: Patio_47 Start: 36027, Stop: 36194, Start Num: 14

Candidate Starts for Patio_47:

(6, 35937), (Start: 14 @36027 has 15 MA's), (22, 36078),

Gene: PierreThree_31 Start: 38059, Stop: 38325, Start Num: 15

Candidate Starts for PierreThree_31:

(Start: 15 @38059 has 29 MA's), (21, 38101), (32, 38176), (39, 38233), (41, 38239), (45, 38278), (50, 38293), (51, 38296),

Gene: PokyPuppy_30 Start: 37985, Stop: 38272, Start Num: 13

Candidate Starts for PokyPuppy_30:

(Start: 13 @37985 has 4 MA's), (23, 38045), (29, 38087), (47, 38216),

Gene: Pupper_125 Start: 82970, Stop: 83203, Start Num: 15

Candidate Starts for Pupper_125:

(6, 82877), (Start: 15 @82970 has 29 MA's), (21, 83012), (44, 83171),

Gene: RedRaider_51 Start: 38049, Stop: 38216, Start Num: 14

Candidate Starts for RedRaider_51:

(6, 37959), (Start: 14 @38049 has 15 MA's),

Gene: RemRem_32 Start: 37097, Stop: 37357, Start Num: 15

Candidate Starts for RemRem_32:

(Start: 15 @37097 has 29 MA's), (17, 37112), (21, 37139), (32, 37214), (39, 37271), (41, 37277), (45, 37310), (51, 37328),

Gene: RoyalG_32 Start: 37579, Stop: 37839, Start Num: 15

Candidate Starts for RoyalG_32:

(Start: 15 @37579 has 29 MA's), (21, 37621), (32, 37696), (39, 37753), (41, 37759), (45, 37792), (50, 37807), (51, 37810),

Gene: SCentae_124 Start: 83123, Stop: 83356, Start Num: 15

Candidate Starts for SCentae_124:

(6, 83030), (Start: 15 @83123 has 29 MA's), (21, 83165), (44, 83324),

Gene: Sam12_31 Start: 37097, Stop: 37357, Start Num: 15

Candidate Starts for Sam12_31:

(Start: 15 @37097 has 29 MA's), (17, 37112), (21, 37139), (32, 37214), (39, 37271), (41, 37277), (45, 37310), (51, 37328),

Gene: Sisko_28 Start: 28150, Stop: 28341, Start Num: 26

Candidate Starts for Sisko_28:

(25, 28147), (Start: 26 @28150 has 26 MA's), (36, 28231), (38, 28246), (39, 28252), (40, 28255), (48, 28309),

Gene: Skog_187 Start: 112853, Stop: 113086, Start Num: 15

Candidate Starts for Skog_187:

(6, 112760), (Start: 15 @112853 has 29 MA's), (21, 112895), (44, 113054),

Gene: Skysand_46 Start: 36247, Stop: 36414, Start Num: 14

Candidate Starts for Skysand_46:

(6, 36157), (Start: 14 @36247 has 15 MA's), (22, 36298),

Gene: Sombrero_31 Start: 37099, Stop: 37359, Start Num: 15

Candidate Starts for Sombrero_31:

(Start: 15 @37099 has 29 MA's), (21, 37141), (32, 37216), (39, 37273), (41, 37279), (45, 37312), (50, 37327), (51, 37330),

Gene: SpeedDemon_400 Start: 36457, Stop: 36627, Start Num: 26

Candidate Starts for SpeedDemon_400:

(3, 36136), (9, 36316), (Start: 26 @36457 has 26 MA's),

Gene: Squibbles_31 Start: 37960, Stop: 38220, Start Num: 15

Candidate Starts for Squibbles_31:

(Start: 15 @37960 has 29 MA's), (17, 37975), (21, 38002), (32, 38077), (39, 38134), (41, 38140), (45, 38173), (51, 38191),

Gene: StarStruck_45 Start: 35768, Stop: 35932, Start Num: 14

Candidate Starts for StarStruck_45:

(6, 35678), (Start: 14 @35768 has 15 MA's), (22, 35819),

Gene: SteveFrench_31 Start: 37818, Stop: 38036, Start Num: 15

Candidate Starts for SteveFrench_31:

(Start: 15 @37818 has 29 MA's), (21, 37860), (32, 37935), (39, 37992), (41, 37998),

Gene: SuperSulley_45 Start: 35954, Stop: 36118, Start Num: 14

Candidate Starts for SuperSulley_45:

(6, 35864), (Start: 14 @35954 has 15 MA's), (20, 35987), (22, 36005),

Gene: Teatealatte_30 Start: 38718, Stop: 38936, Start Num: 16

Candidate Starts for Teatealatte_30:

(Start: 16 @38718 has 7 MA's), (20, 38748), (32, 38835), (37, 38880), (38, 38886),

Gene: Teech_30 Start: 38519, Stop: 38737, Start Num: 16

Candidate Starts for Teech_30:

(Start: 16 @38519 has 7 MA's), (32, 38636), (37, 38681), (38, 38687),

Gene: Tredge_30 Start: 38718, Stop: 38936, Start Num: 16

Candidate Starts for Tredge_30:

(Start: 16 @38718 has 7 MA's), (20, 38748), (32, 38835), (37, 38880), (38, 38886),

Gene: WheatThin_26 Start: 23122, Stop: 23313, Start Num: 26

Candidate Starts for WheatThin_26:

(Start: 13 @23047 has 4 MA's), (Start: 26 @23122 has 26 MA's), (46, 23278),

Gene: Worcestershire_31 Start: 37099, Stop: 37359, Start Num: 15

Candidate Starts for Worcestershire_31:

(Start: 15 @37099 has 29 MA's), (17, 37114), (21, 37141), (32, 37216), (39, 37273), (41, 37279), (45, 37312), (51, 37330),

Gene: Yago84_28 Start: 28224, Stop: 28415, Start Num: 26

Candidate Starts for Yago84_28:

(25, 28221), (Start: 26 @28224 has 26 MA's), (28, 28245), (36, 28305), (38, 28320), (39, 28326), (40, 28329), (48, 28383),