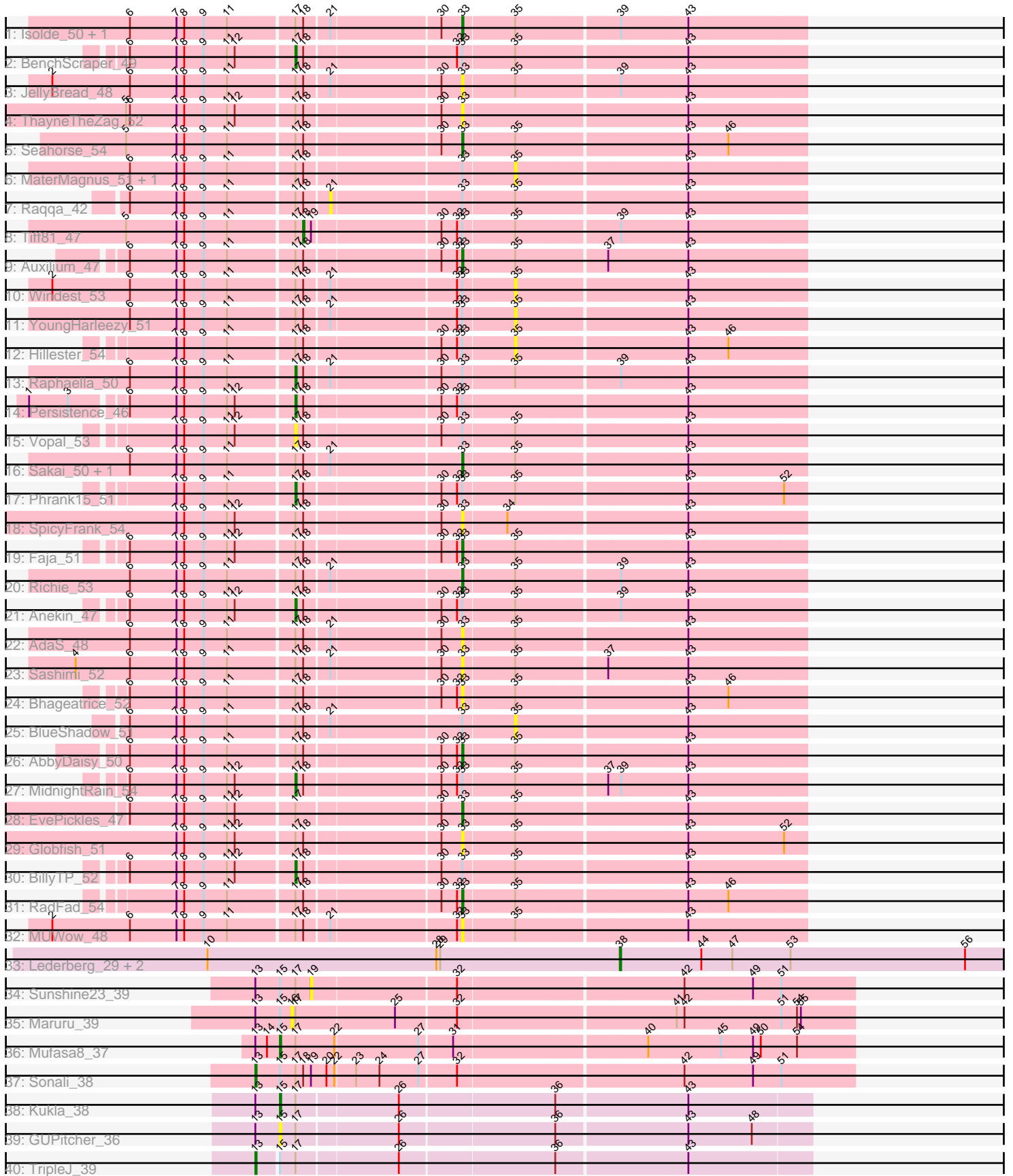


Pham 224684



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 224684 Report

This analysis was run 03/28/25 on database version 593.

Pham number 224684 has 45 members, 20 are drafts.

Phages represented in each track:

- Track 1 : Isolde_50, CookieBear_51
- Track 2 : BenchScraper_49
- Track 3 : JellyBread_48
- Track 4 : ThayneTheZag_52
- Track 5 : Seahorse_54
- Track 6 : MaterMagnus_51, Aikyam_49
- Track 7 : Raqqa_42
- Track 8 : Tiff81_47
- Track 9 : Auxilium_47
- Track 10 : Windest_53
- Track 11 : YoungHarleezy_51
- Track 12 : Hillester_54
- Track 13 : Raphaella_50
- Track 14 : Persistence_46
- Track 15 : Vopal_53
- Track 16 : Sakai_50, Gorpy_51
- Track 17 : Phrank15_51
- Track 18 : SpicyFrank_54
- Track 19 : Faja_51
- Track 20 : Richie_53
- Track 21 : Anekin_47
- Track 22 : AdaS_48
- Track 23 : Sashimi_52
- Track 24 : Bhageatrice_52
- Track 25 : BlueShadow_51
- Track 26 : AbbyDaisy_50
- Track 27 : MidnightRain_54
- Track 28 : EvePickles_47
- Track 29 : Globfish_51
- Track 30 : BillyTP_52
- Track 31 : RadFad_54
- Track 32 : MUWow_48
- Track 33 : Lederberg_29, SamW_29, Troy_29
- Track 34 : Sunshine23_39
- Track 35 : Maruru_39
- Track 36 : Mufasa8_37
- Track 37 : Sonali_38

- Track 38 : Kukla_38
- Track 39 : GUPitcher_36
- Track 40 : TripleJ_39

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

The start number called the most often in the published annotations is 33, it was called in 10 of the 25 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- AbbyDaisy_50, AdaS_48, Auxilium_47, Bhageatrice_52, CookieBear_51, EvePickles_47, Faja_51, Globfish_51, Gorpy_51, Isolde_50, JellyBread_48, MUWow_48, RadFad_54, Richie_53, Sakai_50, Sashimi_52, Seahorse_54, SpicyFrank_54, ThayneTheZag_52,

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

- Aikyam_49, Anekin_47, BenchScraper_49, BillyTP_52, BlueShadow_51, Hillester_54, MaterMagnus_51, MidnightRain_54, Persistence_46, Phrank15_51, Raphaella_50, Raqqa_42, Tiff81_47, Vopal_53, Windest_53, YoungHarleezy_51,

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

- GUPitcher_36, Kukla_38, Lederberg_29, Maruru_39, Mufasa8_37, SamW_29, Sonali_38, Sunshine23_39, TripleJ_39, Troy_29,

Summary by start number:

Start 13:

- Found in 7 of 45 (15.6%) of genes in pham
- Manual Annotations of this start: 2 of 25
- Called 28.6% of time when present
- Phage (with cluster) where this start called: Sonali_38 (FG), TripleJ_39 (FJ),

Start 15:

- Found in 7 of 45 (15.6%) of genes in pham
- Manual Annotations of this start: 2 of 25
- Called 42.9% of time when present
- Phage (with cluster) where this start called: GUPitcher_36 (FJ), Kukla_38 (FJ), Mufasa8_37 (FG),

Start 16:

- Found in 1 of 45 (2.2%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Maruru_39 (FG),

Start 17:

- Found in 42 of 45 (93.3%) of genes in pham
- Manual Annotations of this start: 7 of 25
- Called 19.0% of time when present

- Phage (with cluster) where this start called: Anekin_47 (AY), BenchScraper_49 (AY), BillyTP_52 (AY), MidnightRain_54 (AY), Persistence_46 (AY), Phrank15_51 (AY), Raphaella_50 (AY), Vopal_53 (AY),

Start 18:

- Found in 35 of 45 (77.8%) of genes in pham
- Manual Annotations of this start: 1 of 25
- Called 2.9% of time when present
- Phage (with cluster) where this start called: Tiff81_47 (AY),

Start 19:

- Found in 3 of 45 (6.7%) of genes in pham
- No Manual Annotations of this start.
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Sunshine23_39 (FG),

Start 21:

- Found in 14 of 45 (31.1%) of genes in pham
- No Manual Annotations of this start.
- Called 7.1% of time when present
- Phage (with cluster) where this start called: Raqqa_42 (AY),

Start 33:

- Found in 35 of 45 (77.8%) of genes in pham
- Manual Annotations of this start: 10 of 25
- Called 54.3% of time when present
- Phage (with cluster) where this start called: AbbyDaisy_50 (AY), AdaS_48 (AY), Auxilium_47 (AY), Bhageatrice_52 (AY), CookieBear_51 (AY), EvePickles_47 (AY), Faja_51 (AY), Globfish_51 (AY), Gorpy_51 (AY), Isolde_50 (AY), JellyBread_48 (AY), MUWow_48 (AY), RadFad_54 (AY), Richie_53 (AY), Sakai_50 (AY), Sashimi_52 (AY), Seahorse_54 (AY), SpicyFrank_54 (AY), ThayneTheZag_52 (AY),

Start 35:

- Found in 32 of 45 (71.1%) of genes in pham
- No Manual Annotations of this start.
- Called 18.8% of time when present
- Phage (with cluster) where this start called: Aikyam_49 (AY), BlueShadow_51 (AY), Hillester_54 (AY), MaterMagnus_51 (AY), Windest_53 (AY), YoungHarleezy_51 (AY),

Start 38:

- Found in 3 of 45 (6.7%) of genes in pham
- Manual Annotations of this start: 3 of 25
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Lederberg_29 (EP), SamW_29 (EP), Troy_29 (EP),

Summary by clusters:

There are 4 clusters represented in this pham: AY, FJ, EP, FG,

Info for manual annotations of cluster AY:

- Start number 17 was manually annotated 7 times for cluster AY.
- Start number 18 was manually annotated 1 time for cluster AY.

- Start number 33 was manually annotated 10 times for cluster AY.

Info for manual annotations of cluster EP:

- Start number 38 was manually annotated 3 times for cluster EP.

Info for manual annotations of cluster FG:

- Start number 13 was manually annotated 1 time for cluster FG.
- Start number 15 was manually annotated 1 time for cluster FG.

Info for manual annotations of cluster FJ:

- Start number 13 was manually annotated 1 time for cluster FJ.
- Start number 15 was manually annotated 1 time for cluster FJ.

Gene Information:

Gene: AbbyDaisy_50 Start: 31666, Stop: 31412, Start Num: 33

Candidate Starts for AbbyDaisy_50:

(6, 31909), (7, 31873), (8, 31867), (9, 31852), (11, 31834), (Start: 17 @31786 has 7 MA's), (Start: 18 @31780 has 1 MA's), (30, 31681), (32, 31669), (Start: 33 @31666 has 10 MA's), (35, 31627), (43, 31501),

Gene: AdaS_48 Start: 29601, Stop: 29347, Start Num: 33

Candidate Starts for AdaS_48:

(6, 29844), (7, 29808), (8, 29802), (9, 29787), (11, 29769), (Start: 17 @29721 has 7 MA's), (Start: 18 @29715 has 1 MA's), (21, 29697), (30, 29616), (Start: 33 @29601 has 10 MA's), (35, 29562), (43, 29436),

Gene: Aikyam_49 Start: 29332, Stop: 29117, Start Num: 35

Candidate Starts for Aikyam_49:

(6, 29614), (7, 29578), (8, 29572), (9, 29557), (11, 29539), (Start: 17 @29491 has 7 MA's), (Start: 18 @29485 has 1 MA's), (Start: 33 @29371 has 10 MA's), (35, 29332), (43, 29206),

Gene: Anekin_47 Start: 30921, Stop: 30547, Start Num: 17

Candidate Starts for Anekin_47:

(6, 31044), (7, 31008), (8, 31002), (9, 30987), (11, 30969), (12, 30963), (Start: 17 @30921 has 7 MA's), (Start: 18 @30915 has 1 MA's), (30, 30816), (32, 30804), (Start: 33 @30801 has 10 MA's), (35, 30762), (39, 30687), (43, 30636),

Gene: Auxilium_47 Start: 28937, Stop: 28683, Start Num: 33

Candidate Starts for Auxilium_47:

(6, 29180), (7, 29144), (8, 29138), (9, 29123), (11, 29105), (Start: 17 @29057 has 7 MA's), (Start: 18 @29051 has 1 MA's), (30, 28952), (32, 28940), (Start: 33 @28937 has 10 MA's), (35, 28898), (37, 28832), (43, 28772),

Gene: BenchScraper_49 Start: 30807, Stop: 30433, Start Num: 17

Candidate Starts for BenchScraper_49:

(6, 30930), (7, 30894), (8, 30888), (9, 30873), (11, 30855), (12, 30849), (Start: 17 @30807 has 7 MA's), (Start: 18 @30801 has 1 MA's), (32, 30690), (Start: 33 @30687 has 10 MA's), (35, 30648), (43, 30522),

Gene: Bhageatrice_52 Start: 32760, Stop: 32506, Start Num: 33

Candidate Starts for Bhageatrice_52:

(6, 33003), (7, 32967), (8, 32961), (9, 32946), (11, 32928), (Start: 17 @32880 has 7 MA's), (Start: 18 @32874 has 1 MA's), (30, 32775), (32, 32763), (Start: 33 @32760 has 10 MA's), (35, 32721), (43, 32595), (46, 32565),

Gene: BillyTP_52 Start: 32678, Stop: 32304, Start Num: 17

Candidate Starts for BillyTP_52:

(6, 32801), (7, 32765), (8, 32759), (9, 32744), (11, 32726), (12, 32720), (Start: 17 @32678 has 7 MA's), (Start: 18 @32672 has 1 MA's), (30, 32573), (Start: 33 @32558 has 10 MA's), (35, 32519), (43, 32393),

Gene: BlueShadow_51 Start: 31309, Stop: 31094, Start Num: 35

Candidate Starts for BlueShadow_51:

(6, 31591), (7, 31555), (8, 31549), (9, 31534), (11, 31516), (Start: 17 @31468 has 7 MA's), (Start: 18 @31462 has 1 MA's), (21, 31444), (Start: 33 @31348 has 10 MA's), (35, 31309), (43, 31183),

Gene: CookieBear_51 Start: 31351, Stop: 31097, Start Num: 33

Candidate Starts for CookieBear_51:

(6, 31594), (7, 31558), (8, 31552), (9, 31537), (11, 31519), (Start: 17 @31471 has 7 MA's), (Start: 18 @31465 has 1 MA's), (21, 31447), (30, 31366), (Start: 33 @31351 has 10 MA's), (35, 31312), (39, 31237), (43, 31186),

Gene: EvePickles_47 Start: 31556, Stop: 31302, Start Num: 33

Candidate Starts for EvePickles_47:

(6, 31799), (7, 31763), (8, 31757), (9, 31742), (11, 31724), (12, 31718), (Start: 17 @31676 has 7 MA's), (30, 31571), (Start: 33 @31556 has 10 MA's), (35, 31517), (43, 31391),

Gene: Faja_51 Start: 32526, Stop: 32272, Start Num: 33

Candidate Starts for Faja_51:

(6, 32769), (7, 32733), (8, 32727), (9, 32712), (11, 32694), (12, 32688), (Start: 17 @32646 has 7 MA's), (Start: 18 @32640 has 1 MA's), (30, 32541), (32, 32529), (Start: 33 @32526 has 10 MA's), (35, 32487), (43, 32361),

Gene: GUPitcher_36 Start: 29382, Stop: 28996, Start Num: 15

Candidate Starts for GUPitcher_36:

(Start: 13 @29397 has 2 MA's), (Start: 15 @29382 has 2 MA's), (Start: 17 @29370 has 7 MA's), (26, 29295), (36, 29181), (43, 29085), (48, 29037),

Gene: Globfish_51 Start: 31449, Stop: 31195, Start Num: 33

Candidate Starts for Globfish_51:

(7, 31656), (8, 31650), (9, 31635), (11, 31617), (12, 31611), (Start: 17 @31569 has 7 MA's), (Start: 18 @31563 has 1 MA's), (30, 31464), (Start: 33 @31449 has 10 MA's), (35, 31410), (43, 31284), (52, 31212),

Gene: Gorpy_51 Start: 32343, Stop: 32089, Start Num: 33

Candidate Starts for Gorpy_51:

(6, 32586), (7, 32550), (8, 32544), (9, 32529), (11, 32511), (Start: 17 @32463 has 7 MA's), (Start: 18 @32457 has 1 MA's), (21, 32439), (Start: 33 @32343 has 10 MA's), (35, 32304), (43, 32178),

Gene: Hillester_54 Start: 32245, Stop: 32030, Start Num: 35

Candidate Starts for Hillester_54:

(7, 32491), (8, 32485), (9, 32470), (11, 32452), (Start: 17 @32404 has 7 MA's), (Start: 18 @32398 has 1 MA's), (30, 32299), (32, 32287), (Start: 33 @32284 has 10 MA's), (35, 32245), (43, 32119), (46,

32089),

Gene: Isolde_50 Start: 31020, Stop: 30766, Start Num: 33

Candidate Starts for Isolde_50:

(6, 31263), (7, 31227), (8, 31221), (9, 31206), (11, 31188), (Start: 17 @31140 has 7 MA's), (Start: 18 @31134 has 1 MA's), (21, 31116), (30, 31035), (Start: 33 @31020 has 10 MA's), (35, 30981), (39, 30906), (43, 30855),

Gene: JellyBread_48 Start: 30141, Stop: 29887, Start Num: 33

Candidate Starts for JellyBread_48:

(2, 30444), (6, 30384), (7, 30348), (8, 30342), (9, 30327), (11, 30309), (Start: 17 @30261 has 7 MA's), (Start: 18 @30255 has 1 MA's), (21, 30237), (30, 30156), (Start: 33 @30141 has 10 MA's), (35, 30102), (39, 30027), (43, 29976),

Gene: Kukla_38 Start: 28870, Stop: 28484, Start Num: 15

Candidate Starts for Kukla_38:

(Start: 13 @28885 has 2 MA's), (Start: 15 @28870 has 2 MA's), (Start: 17 @28858 has 7 MA's), (26, 28783), (36, 28669), (43, 28573),

Gene: Lederberg_29 Start: 26515, Stop: 26210, Start Num: 38

Candidate Starts for Lederberg_29:

(10, 26833), (28, 26656), (29, 26653), (Start: 38 @26515 has 3 MA's), (44, 26452), (47, 26428), (53, 26383), (56, 26248),

Gene: MUWow_48 Start: 31285, Stop: 31031, Start Num: 33

Candidate Starts for MUWow_48:

(2, 31588), (6, 31528), (7, 31492), (8, 31486), (9, 31471), (11, 31453), (Start: 17 @31405 has 7 MA's), (Start: 18 @31399 has 1 MA's), (21, 31381), (32, 31288), (Start: 33 @31285 has 10 MA's), (35, 31246), (43, 31120),

Gene: Maruru_39 Start: 32680, Stop: 32264, Start Num: 16

Candidate Starts for Maruru_39:

(Start: 13 @32707 has 2 MA's), (Start: 15 @32689 has 2 MA's), (16, 32680), (Start: 17 @32677 has 7 MA's), (25, 32602), (32, 32557), (41, 32398), (42, 32392), (51, 32320), (54, 32308), (55, 32305),

Gene: MaterMagnus_51 Start: 31504, Stop: 31289, Start Num: 35

Candidate Starts for MaterMagnus_51:

(6, 31786), (7, 31750), (8, 31744), (9, 31729), (11, 31711), (Start: 17 @31663 has 7 MA's), (Start: 18 @31657 has 1 MA's), (Start: 33 @31543 has 10 MA's), (35, 31504), (43, 31378),

Gene: MidnightRain_54 Start: 32585, Stop: 32211, Start Num: 17

Candidate Starts for MidnightRain_54:

(6, 32708), (7, 32672), (8, 32666), (9, 32651), (11, 32633), (12, 32627), (Start: 17 @32585 has 7 MA's), (Start: 18 @32579 has 1 MA's), (30, 32480), (32, 32468), (Start: 33 @32465 has 10 MA's), (35, 32426), (37, 32360), (39, 32351), (43, 32300),

Gene: Mufasa8_37 Start: 30860, Stop: 30435, Start Num: 15

Candidate Starts for Mufasa8_37:

(Start: 13 @30878 has 2 MA's), (14, 30869), (Start: 15 @30860 has 2 MA's), (Start: 17 @30848 has 7 MA's), (22, 30818), (27, 30755), (31, 30731), (40, 30590), (45, 30536), (49, 30512), (50, 30506), (54, 30479),

Gene: Persistence_46 Start: 30198, Stop: 29824, Start Num: 17

Candidate Starts for Persistence_46:

(1, 30387), (3, 30357), (6, 30321), (7, 30285), (8, 30279), (9, 30264), (11, 30246), (12, 30240), (Start: 17 @30198 has 7 MA's), (Start: 18 @30192 has 1 MA's), (30, 30093), (32, 30081), (Start: 33 @30078 has 10 MA's), (43, 29913),

Gene: Phrank15_51 Start: 31429, Stop: 31055, Start Num: 17

Candidate Starts for Phrank15_51:

(7, 31516), (8, 31510), (9, 31495), (11, 31477), (Start: 17 @31429 has 7 MA's), (Start: 18 @31423 has 1 MA's), (30, 31324), (32, 31312), (Start: 33 @31309 has 10 MA's), (35, 31270), (43, 31144), (52, 31072),

Gene: RadFad_54 Start: 32284, Stop: 32030, Start Num: 33

Candidate Starts for RadFad_54:

(7, 32491), (8, 32485), (9, 32470), (11, 32452), (Start: 17 @32404 has 7 MA's), (Start: 18 @32398 has 1 MA's), (30, 32299), (32, 32287), (Start: 33 @32284 has 10 MA's), (35, 32245), (43, 32119), (46, 32089),

Gene: Raphaella_50 Start: 31072, Stop: 30698, Start Num: 17

Candidate Starts for Raphaella_50:

(6, 31195), (7, 31159), (8, 31153), (9, 31138), (11, 31120), (Start: 17 @31072 has 7 MA's), (Start: 18 @31066 has 1 MA's), (21, 31048), (30, 30967), (Start: 33 @30952 has 10 MA's), (35, 30913), (39, 30838), (43, 30787),

Gene: Raqqa_42 Start: 28245, Stop: 27895, Start Num: 21

Candidate Starts for Raqqa_42:

(6, 28392), (7, 28356), (8, 28350), (9, 28335), (11, 28317), (Start: 17 @28269 has 7 MA's), (Start: 18 @28263 has 1 MA's), (21, 28245), (Start: 33 @28149 has 10 MA's), (35, 28110), (43, 27984),

Gene: Richie_53 Start: 32021, Stop: 31767, Start Num: 33

Candidate Starts for Richie_53:

(6, 32264), (7, 32228), (8, 32222), (9, 32207), (11, 32189), (Start: 17 @32141 has 7 MA's), (Start: 18 @32135 has 1 MA's), (21, 32117), (Start: 33 @32021 has 10 MA's), (35, 31982), (39, 31907), (43, 31856),

Gene: Sakai_50 Start: 31054, Stop: 30800, Start Num: 33

Candidate Starts for Sakai_50:

(6, 31297), (7, 31261), (8, 31255), (9, 31240), (11, 31222), (Start: 17 @31174 has 7 MA's), (Start: 18 @31168 has 1 MA's), (21, 31150), (Start: 33 @31054 has 10 MA's), (35, 31015), (43, 30889),

Gene: SamW_29 Start: 26130, Stop: 25825, Start Num: 38

Candidate Starts for SamW_29:

(10, 26448), (28, 26271), (29, 26268), (Start: 38 @26130 has 3 MA's), (44, 26067), (47, 26043), (53, 25998), (56, 25863),

Gene: Sashimi_52 Start: 32287, Stop: 32033, Start Num: 33

Candidate Starts for Sashimi_52:

(4, 32572), (6, 32530), (7, 32494), (8, 32488), (9, 32473), (11, 32455), (Start: 17 @32407 has 7 MA's), (Start: 18 @32401 has 1 MA's), (21, 32383), (30, 32302), (Start: 33 @32287 has 10 MA's), (35, 32248), (37, 32182), (43, 32122),

Gene: Seahorse_54 Start: 33286, Stop: 33032, Start Num: 33

Candidate Starts for Seahorse_54:

(5, 33532), (7, 33493), (8, 33487), (9, 33472), (11, 33454), (Start: 17 @33406 has 7 MA's), (Start: 18 @33400 has 1 MA's), (30, 33301), (Start: 33 @33286 has 10 MA's), (35, 33247), (43, 33121), (46, 33091),

Gene: Sonali_38 Start: 33170, Stop: 32727, Start Num: 13

Candidate Starts for Sonali_38:

(Start: 13 @33170 has 2 MA's), (Start: 15 @33152 has 2 MA's), (Start: 17 @33140 has 7 MA's), (Start: 18 @33134 has 1 MA's), (19, 33128), (20, 33116), (22, 33110), (23, 33095), (24, 33077), (27, 33047), (32, 33020), (42, 32855), (49, 32804), (51, 32783),

Gene: SpicyFrank_54 Start: 32132, Stop: 31878, Start Num: 33

Candidate Starts for SpicyFrank_54:

(7, 32339), (8, 32333), (9, 32318), (11, 32300), (12, 32294), (Start: 17 @32252 has 7 MA's), (Start: 18 @32246 has 1 MA's), (30, 32147), (Start: 33 @32132 has 10 MA's), (34, 32099), (43, 31967),

Gene: Sunshine23_39 Start: 33003, Stop: 32602, Start Num: 19

Candidate Starts for Sunshine23_39:

(Start: 13 @33045 has 2 MA's), (Start: 15 @33027 has 2 MA's), (Start: 17 @33015 has 7 MA's), (19, 33003), (32, 32895), (42, 32730), (49, 32679), (51, 32658),

Gene: ThayneTheZag_52 Start: 31128, Stop: 30874, Start Num: 33

Candidate Starts for ThayneTheZag_52:

(5, 31374), (6, 31371), (7, 31335), (8, 31329), (9, 31314), (11, 31296), (12, 31290), (Start: 17 @31248 has 7 MA's), (Start: 18 @31242 has 1 MA's), (30, 31143), (Start: 33 @31128 has 10 MA's), (43, 30963),

Gene: Tiff81_47 Start: 29579, Stop: 29211, Start Num: 18

Candidate Starts for Tiff81_47:

(5, 29711), (7, 29672), (8, 29666), (9, 29651), (11, 29633), (Start: 17 @29585 has 7 MA's), (Start: 18 @29579 has 1 MA's), (19, 29573), (30, 29480), (32, 29468), (Start: 33 @29465 has 10 MA's), (35, 29426), (39, 29351), (43, 29300),

Gene: TripleJ_39 Start: 28726, Stop: 28325, Start Num: 13

Candidate Starts for TripleJ_39:

(Start: 13 @28726 has 2 MA's), (Start: 15 @28711 has 2 MA's), (Start: 17 @28699 has 7 MA's), (26, 28624), (36, 28510), (43, 28414),

Gene: Troy_29 Start: 26130, Stop: 25825, Start Num: 38

Candidate Starts for Troy_29:

(10, 26448), (28, 26271), (29, 26268), (Start: 38 @26130 has 3 MA's), (44, 26067), (47, 26043), (53, 25998), (56, 25863),

Gene: Vopal_53 Start: 34301, Stop: 33927, Start Num: 17

Candidate Starts for Vopal_53:

(7, 34388), (8, 34382), (9, 34367), (11, 34349), (12, 34343), (Start: 17 @34301 has 7 MA's), (Start: 18 @34295 has 1 MA's), (30, 34196), (Start: 33 @34181 has 10 MA's), (35, 34142), (43, 34016),

Gene: Windest_53 Start: 30174, Stop: 29959, Start Num: 35

Candidate Starts for Windest_53:

(2, 30516), (6, 30456), (7, 30420), (8, 30414), (9, 30399), (11, 30381), (Start: 17 @30333 has 7 MA's), (Start: 18 @30327 has 1 MA's), (21, 30309), (32, 30216), (Start: 33 @30213 has 10 MA's), (35, 30174), (43, 30048),

Gene: YoungHarleezy_51 Start: 31479, Stop: 31264, Start Num: 35

Candidate Starts for YoungHarleezy_51:

(6, 31761), (7, 31725), (8, 31719), (9, 31704), (11, 31686), (Start: 17 @31638 has 7 MA's), (Start: 18 @31632 has 1 MA's), (21, 31614), (32, 31521), (Start: 33 @31518 has 10 MA's), (35, 31479), (43, 31353),