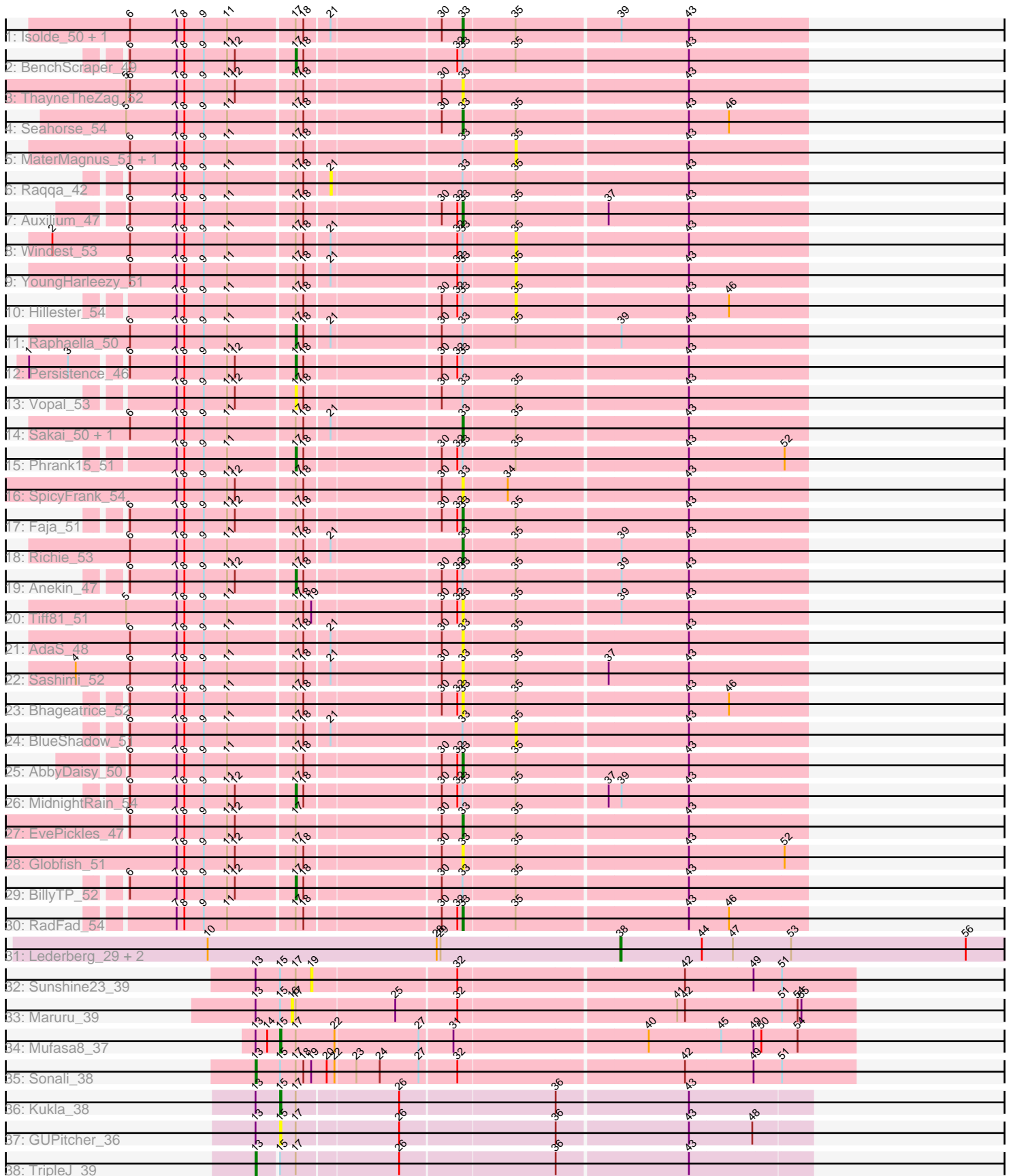


# Pham 203073



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 203073 Report

This analysis was run 01/18/25 on database version 583.

Pham number 203073 has 43 members, 19 are drafts.

Phages represented in each track:

- Track 1 : Isolde\_50, CookieBear\_51
- Track 2 : BenchScraper\_49
- Track 3 : ThayneTheZag\_52
- Track 4 : Seahorse\_54
- Track 5 : MaterMagnus\_51, Aikyam\_49
- Track 6 : Raqqa\_42
- Track 7 : Auxilium\_47
- Track 8 : Windest\_53
- Track 9 : YoungHarleezy\_51
- Track 10 : Hillester\_54
- Track 11 : Raphaella\_50
- Track 12 : Persistence\_46
- Track 13 : Vopal\_53
- Track 14 : Sakai\_50, Gorpy\_51
- Track 15 : Phrank15\_51
- Track 16 : SpicyFrank\_54
- Track 17 : Faja\_51
- Track 18 : Richie\_53
- Track 19 : Anekin\_47
- Track 20 : Tiff81\_51
- Track 21 : AdaS\_48
- Track 22 : Sashimi\_52
- Track 23 : Bhageatrice\_52
- Track 24 : BlueShadow\_51
- Track 25 : AbbyDaisy\_50
- Track 26 : MidnightRain\_54
- Track 27 : EvePickles\_47
- Track 28 : Globfish\_51
- Track 29 : BillyTP\_52
- Track 30 : RadFad\_54
- Track 31 : Lederberg\_29, SamW\_29, Troy\_29
- Track 32 : Sunshine23\_39
- Track 33 : Maruru\_39
- Track 34 : Mufasa8\_37
- Track 35 : Sonali\_38
- Track 36 : Kukla\_38
- Track 37 : GUPitcher\_36

- Track 38 : 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 24 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, RadFad\_54, Richie\_53, Sakai\_50, Sashimi\_52, Seahorse\_54, SpicyFrank\_54, ThayneTheZag\_52, Tiff81\_51,

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, 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 43 ( 16.3% ) of genes in pham
- Manual Annotations of this start: 2 of 24
- 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 43 ( 16.3% ) of genes in pham
- Manual Annotations of this start: 2 of 24
- 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 43 ( 2.3% ) 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 40 of 43 ( 93.0% ) of genes in pham
- Manual Annotations of this start: 7 of 24
- Called 20.0% 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 19:

- Found in 3 of 43 ( 7.0% ) 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 12 of 43 ( 27.9% ) of genes in pham
- No Manual Annotations of this start.
- Called 8.3% of time when present
- Phage (with cluster) where this start called: Raqqa\_42 (AY),

Start 33:

- Found in 33 of 43 ( 76.7% ) of genes in pham
- Manual Annotations of this start: 10 of 24
- Called 54.5% 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), RadFad\_54 (AY), Richie\_53 (AY), Sakai\_50 (AY), Sashimi\_52 (AY), Seahorse\_54 (AY), SpicyFrank\_54 (AY), ThayneTheZag\_52 (AY), Tiff81\_51 (AY),

Start 35:

- Found in 30 of 43 ( 69.8% ) of genes in pham
- No Manual Annotations of this start.
- Called 20.0% 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 43 ( 7.0% ) of genes in pham
- Manual Annotations of this start: 3 of 24
- 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 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), (18, 31780), (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), (18, 29715), (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), (18, 29485), (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), (18, 30915), (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), (18, 29051), (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), (18, 30801), (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), (18, 32874), (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), (18, 32672), (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), (18, 31462), (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), (18, 31465), (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), (18, 32640), (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), (18, 31563), (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), (18, 32457), (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), (18, 32398), (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), (18, 31134), (21, 31116), (30, 31035), (Start: 33 @31020 has 10 MA's), (35, 30981), (39, 30906), (43, 30855),

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: 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), (18, 31657), (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), (18, 32579), (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), (18, 30192), (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), (18, 31423), (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), (18, 32398), (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), (18, 31066), (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), (18, 28263), (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), (18, 32135), (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), (18, 31168), (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), (18, 32401), (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), (18, 33400), (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), (18, 33134), (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), (18, 32246), (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), (18, 31242), (30, 31143), (Start: 33 @31128 has 10 MA's), (43, 30963),

Gene: Tiff81\_51 Start: 29465, Stop: 29211, Start Num: 33

Candidate Starts for Tiff81\_51:

(5, 29711), (7, 29672), (8, 29666), (9, 29651), (11, 29633), (Start: 17 @29585 has 7 MA's), (18, 29579), (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), (18, 34295), (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), (18, 30327), (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), (18, 31632), (21, 31614), (32, 31521), (Start: 33 @31518 has 10 MA's), (35, 31479), (43, 31353),