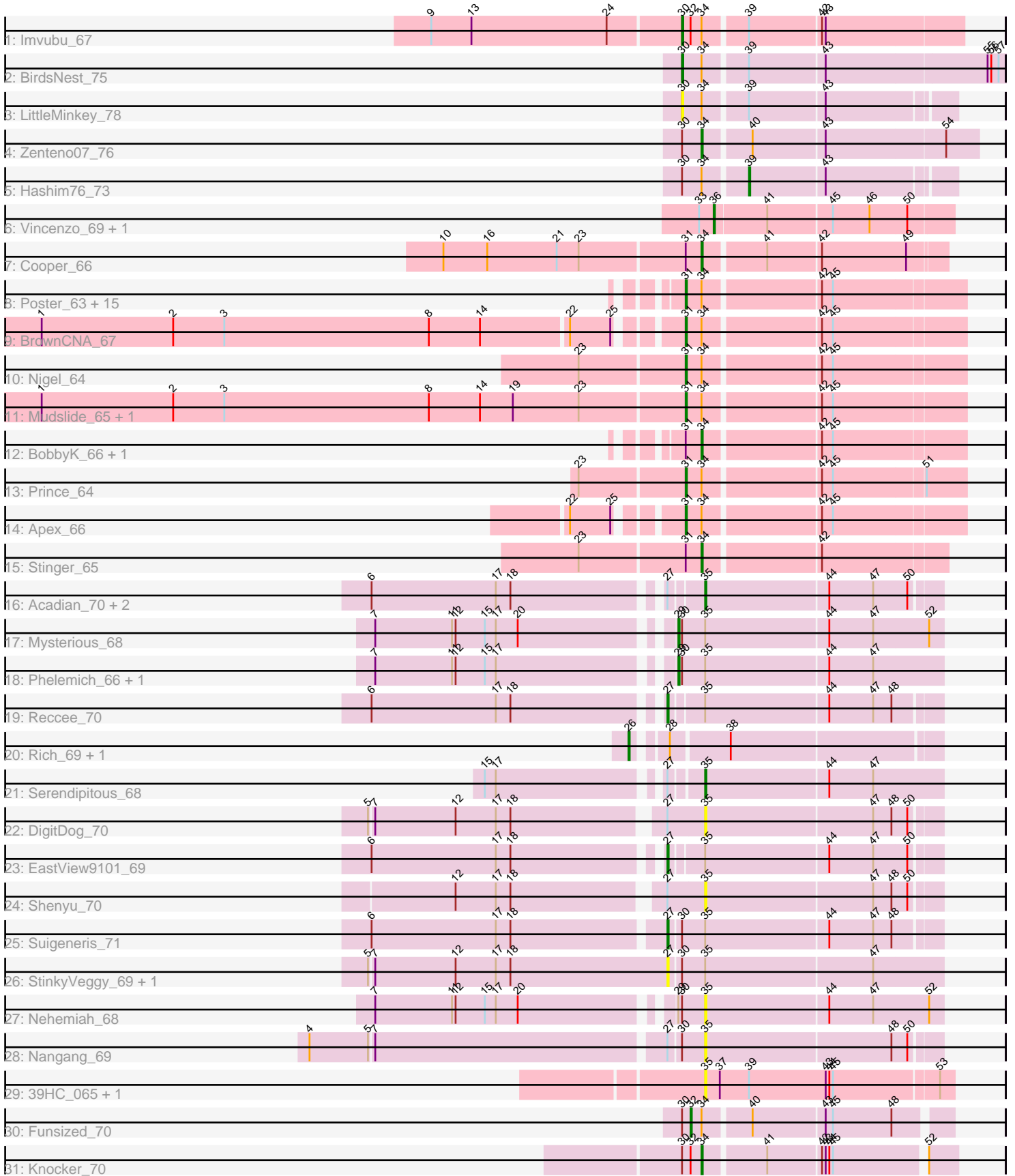


Pham 301426



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 301426 Report

This analysis was run 06/08/26 on database version 649.

Pham number 301426 has 55 members, 18 are drafts.

Phages represented in each track:

- Track 1 : Imvubu\_67
- Track 2 : BirdsNest\_75
- Track 3 : LittleMinkey\_78
- Track 4 : Zenteno07\_76
- Track 5 : Hashim76\_73
- Track 6 : Vincenzo\_69, AlanGrant\_70
- Track 7 : Cooper\_66
- Track 8 : Poster\_63, Frederick\_67, Nanao\_64, Lambano\_63, Renkei\_64, Hangman\_66, Epah\_63, Hally898\_63, GinPorsche\_65, Hydro\_66, JAMaL\_65, Antihero\_63, Heath\_65, LittleDigger\_64, Magpie\_63, Ahwei\_63
- Track 9 : BrownCNA\_67
- Track 10 : Nigel\_64
- Track 11 : Mudslide\_65, Waleliano\_65
- Track 12 : BobbyK\_66, ChrisnMich\_65
- Track 13 : Prince\_64
- Track 14 : Apex\_66
- Track 15 : Stinger\_65
- Track 16 : Acadian\_70, Rita130\_69, SirJeffery\_69
- Track 17 : Mysterious\_68
- Track 18 : Phelemich\_66, Reprobate\_68
- Track 19 : Reccee\_70
- Track 20 : Rich\_69, Bae\_70
- Track 21 : Serendipitous\_68
- Track 22 : DigitDog\_70
- Track 23 : EastView9101\_69
- Track 24 : Shenyu\_70
- Track 25 : Suigeneris\_71
- Track 26 : StinkyVeggy\_69, KarasumaRum\_69
- Track 27 : Nehemiah\_68
- Track 28 : Nangang\_69
- Track 29 : 39HC\_065, 40BC\_065
- Track 30 : Funsized\_70
- Track 31 : Knocker\_70

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

The start number called the most often in the published annotations is 31, it was called in 15 of the 37 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Ahwei\_63, Antihero\_63, Apex\_66, BrownCNA\_67, Epah\_63, Frederick\_67, GinPorsche\_65, Hally898\_63, Hangman\_66, Heath\_65, Hydro\_66, JAMaL\_65, Lambano\_63, LittleDigger\_64, Magpie\_63, Mudslide\_65, Nanao\_64, Nigel\_64, Poster\_63, Prince\_64, Renkei\_64, Waleliano\_65,

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

- BobbyK\_66, ChrisnMich\_65, Cooper\_66, Stinger\_65,

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

- 39HC\_065, 40BC\_065, Acadian\_70, AlanGrant\_70, Bae\_70, BirdsNest\_75, DigitDog\_70, EastView9101\_69, Funsized\_70, Hashim76\_73, Imvubu\_67, KarasumaRum\_69, Knocker\_70, LittleMinkey\_78, Mysterious\_68, Nangang\_69, Nehemiah\_68, Phelemich\_66, Reccee\_70, Reprobate\_68, Rich\_69, Rita130\_69, Serendipitous\_68, Shenyu\_70, SirJeffery\_69, StinkyVeggy\_69, Suigeneris\_71, Vincenzo\_69, Zenteno07\_76,

### Summary by start number:

Start 26:

- Found in 2 of 55 ( 3.6% ) of genes in pham
- Manual Annotations of this start: 2 of 37
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Bae\_70 (B5), Rich\_69 (B5),

Start 27:

- Found in 12 of 55 ( 21.8% ) of genes in pham
- Manual Annotations of this start: 3 of 37
- Called 41.7% of time when present
- Phage (with cluster) where this start called: EastView9101\_69 (B5), KarasumaRum\_69 (B5), Reccee\_70 (B5), StinkyVeggy\_69 (B5), Suigeneris\_71 (B5),

Start 29:

- Found in 4 of 55 ( 7.3% ) of genes in pham
- Manual Annotations of this start: 3 of 37
- Called 75.0% of time when present
- Phage (with cluster) where this start called: Mysterious\_68 (B5), Phelemich\_66 (B5), Reprobate\_68 (B5),

Start 30:

- Found in 15 of 55 ( 27.3% ) of genes in pham
- Manual Annotations of this start: 2 of 37
- Called 20.0% of time when present
- Phage (with cluster) where this start called: BirdsNest\_75 (B13), Imvubu\_67 (B10), LittleMinkey\_78 (B13),

Start 31:

- Found in 26 of 55 ( 47.3% ) of genes in pham
- Manual Annotations of this start: 15 of 37

- Called 84.6% of time when present
- Phage (with cluster) where this start called: Ahwei\_63 (B4), Antihero\_63 (B4), Apex\_66 (B4), BrownCNA\_67 (B4), Epah\_63 (B4), Frederick\_67 (B4), GinPorsche\_65 (B4), Hally898\_63 (B4), Hangman\_66 (B4), Heath\_65 (B4), Hydro\_66 (B4), JAMaL\_65 (B4), Lambano\_63 (B4), LittleDigger\_64 (B4), Maggie\_63 (B4), Mudslide\_65 (B4), Nanao\_64 (B4), Nigel\_64 (B4), Poster\_63 (B4), Prince\_64 (B4), Renkei\_64 (B4), Waleliano\_65 (B4),

Start 32:

- Found in 3 of 55 ( 5.5% ) of genes in pham
- Manual Annotations of this start: 1 of 37
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Funsized\_70 (B9),

Start 34:

- Found in 33 of 55 ( 60.0% ) of genes in pham
- Manual Annotations of this start: 6 of 37
- Called 18.2% of time when present
- Phage (with cluster) where this start called: BobbyK\_66 (B4), ChrisnMich\_65 (B4), Cooper\_66 (B4), Knocker\_70 (B9), Stinger\_65 (B4), Zenteno07\_76 (B13),

Start 35:

- Found in 18 of 55 ( 32.7% ) of genes in pham
- Manual Annotations of this start: 2 of 37
- Called 55.6% of time when present
- Phage (with cluster) where this start called: 39HC\_065 (B6), 40BC\_065 (B6), Acadian\_70 (B5), DigitDog\_70 (B5), Nangang\_69 (B5), Nehemiah\_68 (B5), Rita130\_69 (B5), Serendipitous\_68 (B5), Shenyu\_70 (B5), SirJeffery\_69 (B5),

Start 36:

- Found in 2 of 55 ( 3.6% ) of genes in pham
- Manual Annotations of this start: 2 of 37
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AlanGrant\_70 (B4), Vincenzo\_69 (B4),

Start 39:

- Found in 6 of 55 ( 10.9% ) of genes in pham
- Manual Annotations of this start: 1 of 37
- Called 16.7% of time when present
- Phage (with cluster) where this start called: Hashim76\_73 (B13),

### Summary by clusters:

There are 6 clusters represented in this pham: B4, B5, B6, B13, B10, B9,

Info for manual annotations of cluster B10:

- Start number 30 was manually annotated 1 time for cluster B10.

Info for manual annotations of cluster B13:

- Start number 30 was manually annotated 1 time for cluster B13.
- Start number 34 was manually annotated 1 time for cluster B13.
- Start number 39 was manually annotated 1 time for cluster B13.

Info for manual annotations of cluster B4:

- Start number 31 was manually annotated 15 times for cluster B4.
- Start number 34 was manually annotated 4 times for cluster B4.
- Start number 36 was manually annotated 2 times for cluster B4.

Info for manual annotations of cluster B5:

- Start number 26 was manually annotated 2 times for cluster B5.
- Start number 27 was manually annotated 3 times for cluster B5.
- Start number 29 was manually annotated 3 times for cluster B5.
- Start number 35 was manually annotated 2 times for cluster B5.

Info for manual annotations of cluster B9:

- Start number 32 was manually annotated 1 time for cluster B9.
- Start number 34 was manually annotated 1 time for cluster B9.

### ***Gene Information:***

Gene: 39HC\_065 Start: 57490, Stop: 57687, Start Num: 35

Candidate Starts for 39HC\_065:

(Start: 35 @57490 has 2 MA's), (37, 57502), (Start: 39 @57526 has 1 MA's), (43, 57589), (44, 57592), (45, 57595), (53, 57676),

Gene: 40BC\_065 Start: 57490, Stop: 57687, Start Num: 35

Candidate Starts for 40BC\_065:

(Start: 35 @57490 has 2 MA's), (37, 57502), (Start: 39 @57526 has 1 MA's), (43, 57589), (44, 57592), (45, 57595), (53, 57676),

Gene: Acadian\_70 Start: 58936, Stop: 59121, Start Num: 35

Candidate Starts for Acadian\_70:

(6, 58687), (17, 58789), (18, 58801), (Start: 27 @58912 has 3 MA's), (Start: 35 @58936 has 2 MA's), (44, 59035), (47, 59071), (50, 59098),

Gene: Ahwei\_63 Start: 58052, Stop: 58267, Start Num: 31

Candidate Starts for Ahwei\_63:

(Start: 31 @58052 has 15 MA's), (Start: 34 @58064 has 6 MA's), (42, 58154), (45, 58163),

Gene: AlanGrant\_70 Start: 60610, Stop: 60798, Start Num: 36

Candidate Starts for AlanGrant\_70:

(33, 60598), (Start: 36 @60610 has 2 MA's), (41, 60652), (45, 60703), (46, 60733), (50, 60763),

Gene: Antihero\_63 Start: 58050, Stop: 58265, Start Num: 31

Candidate Starts for Antihero\_63:

(Start: 31 @58050 has 15 MA's), (Start: 34 @58062 has 6 MA's), (42, 58152), (45, 58161),

Gene: Apex\_66 Start: 59146, Stop: 59361, Start Num: 31

Candidate Starts for Apex\_66:

(22, 59071), (25, 59104), (Start: 31 @59146 has 15 MA's), (Start: 34 @59158 has 6 MA's), (42, 59248), (45, 59257),

Gene: Bae\_70 Start: 59961, Stop: 60203, Start Num: 26

Candidate Starts for Bae\_70:

(Start: 26 @59961 has 2 MA's), (28, 59982), (38, 60027),

Gene: BirdsNest\_75 Start: 59161, Stop: 59412, Start Num: 30

Candidate Starts for BirdsNest\_75:

(Start: 30 @59161 has 2 MA's), (Start: 34 @59176 has 6 MA's), (Start: 39 @59209 has 1 MA's), (43, 59269), (55, 59398), (56, 59401), (57, 59407),

Gene: BobbyK\_66 Start: 58944, Stop: 59147, Start Num: 34

Candidate Starts for BobbyK\_66:

(Start: 31 @58932 has 15 MA's), (Start: 34 @58944 has 6 MA's), (42, 59034), (45, 59043),

Gene: BrownCNA\_67 Start: 59309, Stop: 59524, Start Num: 31

Candidate Starts for BrownCNA\_67:

(1, 58805), (2, 58913), (3, 58955), (8, 59123), (14, 59165), (22, 59234), (25, 59267), (Start: 31 @59309 has 15 MA's), (Start: 34 @59321 has 6 MA's), (42, 59411), (45, 59420),

Gene: ChrisnMich\_65 Start: 58046, Stop: 58249, Start Num: 34

Candidate Starts for ChrisnMich\_65:

(Start: 31 @58034 has 15 MA's), (Start: 34 @58046 has 6 MA's), (42, 58136), (45, 58145),

Gene: Cooper\_66 Start: 58486, Stop: 58674, Start Num: 34

Candidate Starts for Cooper\_66:

(10, 58279), (16, 58315), (21, 58372), (23, 58390), (Start: 31 @58474 has 15 MA's), (Start: 34 @58486 has 6 MA's), (41, 58534), (42, 58576), (49, 58645),

Gene: DigitDog\_70 Start: 59079, Stop: 59264, Start Num: 35

Candidate Starts for DigitDog\_70:

(5, 58821), (7, 58824), (12, 58890), (17, 58923), (18, 58935), (Start: 27 @59049 has 3 MA's), (Start: 35 @59079 has 2 MA's), (47, 59214), (48, 59229), (50, 59241),

Gene: EastView9101\_69 Start: 58656, Stop: 58865, Start Num: 27

Candidate Starts for EastView9101\_69:

(6, 58431), (17, 58533), (18, 58545), (Start: 27 @58656 has 3 MA's), (Start: 35 @58680 has 2 MA's), (44, 58779), (47, 58815), (50, 58842),

Gene: Epah\_63 Start: 58050, Stop: 58265, Start Num: 31

Candidate Starts for Epah\_63:

(Start: 31 @58050 has 15 MA's), (Start: 34 @58062 has 6 MA's), (42, 58152), (45, 58161),

Gene: Frederick\_67 Start: 59032, Stop: 59247, Start Num: 31

Candidate Starts for Frederick\_67:

(Start: 31 @59032 has 15 MA's), (Start: 34 @59044 has 6 MA's), (42, 59134), (45, 59143),

Gene: Funsized\_70 Start: 61025, Stop: 61222, Start Num: 32

Candidate Starts for Funsized\_70:

(Start: 30 @61019 has 2 MA's), (Start: 32 @61025 has 1 MA's), (Start: 34 @61034 has 6 MA's), (40, 61070), (43, 61127), (45, 61133), (48, 61181),

Gene: GinPorsche\_65 Start: 58050, Stop: 58265, Start Num: 31

Candidate Starts for GinPorsche\_65:

(Start: 31 @58050 has 15 MA's), (Start: 34 @58062 has 6 MA's), (42, 58152), (45, 58161),

Gene: Hally898\_63 Start: 58065, Stop: 58280, Start Num: 31  
Candidate Starts for Hally898\_63:  
(Start: 31 @58065 has 15 MA's), (Start: 34 @58077 has 6 MA's), (42, 58167), (45, 58176),

Gene: Hangman\_66 Start: 59231, Stop: 59446, Start Num: 31  
Candidate Starts for Hangman\_66:  
(Start: 31 @59231 has 15 MA's), (Start: 34 @59243 has 6 MA's), (42, 59333), (45, 59342),

Gene: Hashim76\_73 Start: 59194, Stop: 59352, Start Num: 39  
Candidate Starts for Hashim76\_73:  
(Start: 30 @59146 has 2 MA's), (Start: 34 @59161 has 6 MA's), (Start: 39 @59194 has 1 MA's), (43, 59254),

Gene: Heath\_65 Start: 58858, Stop: 59073, Start Num: 31  
Candidate Starts for Heath\_65:  
(Start: 31 @58858 has 15 MA's), (Start: 34 @58870 has 6 MA's), (42, 58960), (45, 58969),

Gene: Hydro\_66 Start: 59169, Stop: 59384, Start Num: 31  
Candidate Starts for Hydro\_66:  
(Start: 31 @59169 has 15 MA's), (Start: 34 @59181 has 6 MA's), (42, 59271), (45, 59280),

Gene: Imvubu\_67 Start: 57772, Stop: 57990, Start Num: 30  
Candidate Starts for Imvubu\_67:  
(9, 57571), (13, 57604), (24, 57715), (Start: 30 @57772 has 2 MA's), (Start: 32 @57778 has 1 MA's),  
(Start: 34 @57787 has 6 MA's), (Start: 39 @57820 has 1 MA's), (42, 57877), (43, 57880),

Gene: JAMaL\_65 Start: 59059, Stop: 59274, Start Num: 31  
Candidate Starts for JAMaL\_65:  
(Start: 31 @59059 has 15 MA's), (Start: 34 @59071 has 6 MA's), (42, 59161), (45, 59170),

Gene: KarasumaRum\_69 Start: 58864, Stop: 59082, Start Num: 27  
Candidate Starts for KarasumaRum\_69:  
(5, 58621), (7, 58624), (12, 58690), (17, 58723), (18, 58735), (Start: 27 @58864 has 3 MA's), (Start: 30 @58873 has 2 MA's), (Start: 35 @58891 has 2 MA's), (47, 59026),

Gene: Knocker\_70 Start: 60207, Stop: 60398, Start Num: 34  
Candidate Starts for Knocker\_70:  
(Start: 30 @60192 has 2 MA's), (Start: 32 @60198 has 1 MA's), (Start: 34 @60207 has 6 MA's), (41, 60255), (42, 60297), (43, 60300), (44, 60303), (45, 60306), (52, 60375),

Gene: Lambano\_63 Start: 58065, Stop: 58280, Start Num: 31  
Candidate Starts for Lambano\_63:  
(Start: 31 @58065 has 15 MA's), (Start: 34 @58077 has 6 MA's), (42, 58167), (45, 58176),

Gene: LittleDigger\_64 Start: 57988, Stop: 58203, Start Num: 31  
Candidate Starts for LittleDigger\_64:  
(Start: 31 @57988 has 15 MA's), (Start: 34 @58000 has 6 MA's), (42, 58090), (45, 58099),

Gene: LittleMinkey\_78 Start: 59077, Stop: 59283, Start Num: 30  
Candidate Starts for LittleMinkey\_78:  
(Start: 30 @59077 has 2 MA's), (Start: 34 @59092 has 6 MA's), (Start: 39 @59125 has 1 MA's), (43, 59185),

Gene: Magpie\_63 Start: 58922, Stop: 59137, Start Num: 31

Candidate Starts for Magpie\_63:

(Start: 31 @58922 has 15 MA's), (Start: 34 @58934 has 6 MA's), (42, 59024), (45, 59033),

Gene: Mudslide\_65 Start: 59260, Stop: 59475, Start Num: 31

Candidate Starts for Mudslide\_65:

(1, 58735), (2, 58843), (3, 58885), (8, 59053), (14, 59095), (19, 59122), (23, 59176), (Start: 31 @59260 has 15 MA's), (Start: 34 @59272 has 6 MA's), (42, 59362), (45, 59371),

Gene: Mysterious\_68 Start: 58978, Stop: 59190, Start Num: 29

Candidate Starts for Mysterious\_68:

(7, 58750), (11, 58813), (12, 58816), (15, 58840), (17, 58849), (20, 58867), (Start: 29 @58978 has 3 MA's), (Start: 30 @58981 has 2 MA's), (Start: 35 @58999 has 2 MA's), (44, 59098), (47, 59134), (52, 59179),

Gene: Nanao\_64 Start: 58055, Stop: 58270, Start Num: 31

Candidate Starts for Nanao\_64:

(Start: 31 @58055 has 15 MA's), (Start: 34 @58067 has 6 MA's), (42, 58157), (45, 58166),

Gene: Nangang\_69 Start: 59078, Stop: 59263, Start Num: 35

Candidate Starts for Nangang\_69:

(4, 58769), (5, 58817), (7, 58820), (Start: 27 @59051 has 3 MA's), (Start: 30 @59060 has 2 MA's), (Start: 35 @59078 has 2 MA's), (48, 59228), (50, 59240),

Gene: Nehemiah\_68 Start: 58837, Stop: 59028, Start Num: 35

Candidate Starts for Nehemiah\_68:

(7, 58588), (11, 58651), (12, 58654), (15, 58678), (17, 58687), (20, 58705), (Start: 29 @58816 has 3 MA's), (Start: 30 @58819 has 2 MA's), (Start: 35 @58837 has 2 MA's), (44, 58936), (47, 58972), (52, 59017),

Gene: Nigel\_64 Start: 58087, Stop: 58302, Start Num: 31

Candidate Starts for Nigel\_64:

(23, 58003), (Start: 31 @58087 has 15 MA's), (Start: 34 @58099 has 6 MA's), (42, 58189), (45, 58198),

Gene: Phelemich\_66 Start: 58810, Stop: 59022, Start Num: 29

Candidate Starts for Phelemich\_66:

(7, 58582), (11, 58645), (12, 58648), (15, 58672), (17, 58681), (Start: 29 @58810 has 3 MA's), (Start: 30 @58813 has 2 MA's), (Start: 35 @58831 has 2 MA's), (44, 58930), (47, 58966),

Gene: Poster\_63 Start: 58056, Stop: 58271, Start Num: 31

Candidate Starts for Poster\_63:

(Start: 31 @58056 has 15 MA's), (Start: 34 @58068 has 6 MA's), (42, 58158), (45, 58167),

Gene: Prince\_64 Start: 59161, Stop: 59376, Start Num: 31

Candidate Starts for Prince\_64:

(23, 59077), (Start: 31 @59161 has 15 MA's), (Start: 34 @59173 has 6 MA's), (42, 59263), (45, 59272), (51, 59344),

Gene: Reccee\_70 Start: 59037, Stop: 59246, Start Num: 27

Candidate Starts for Reccee\_70:

(6, 58812), (17, 58914), (18, 58926), (Start: 27 @59037 has 3 MA's), (Start: 35 @59061 has 2 MA's), (44, 59160), (47, 59196), (48, 59211),

Gene: Renkei\_64 Start: 57982, Stop: 58197, Start Num: 31  
Candidate Starts for Renkei\_64:  
(Start: 31 @57982 has 15 MA's), (Start: 34 @57994 has 6 MA's), (42, 58084), (45, 58093),

Gene: Reprobate\_68 Start: 58815, Stop: 59027, Start Num: 29  
Candidate Starts for Reprobate\_68:  
(7, 58587), (11, 58650), (12, 58653), (15, 58677), (17, 58686), (Start: 29 @58815 has 3 MA's), (Start: 30 @58818 has 2 MA's), (Start: 35 @58836 has 2 MA's), (44, 58935), (47, 58971),

Gene: Rich\_69 Start: 60021, Stop: 60251, Start Num: 26  
Candidate Starts for Rich\_69:  
(Start: 26 @60021 has 2 MA's), (28, 60042), (38, 60087),

Gene: Rita130\_69 Start: 58874, Stop: 59059, Start Num: 35  
Candidate Starts for Rita130\_69:  
(6, 58625), (17, 58727), (18, 58739), (Start: 27 @58850 has 3 MA's), (Start: 35 @58874 has 2 MA's), (44, 58973), (47, 59009), (50, 59036),

Gene: Serendipitous\_68 Start: 58411, Stop: 58602, Start Num: 35  
Candidate Starts for Serendipitous\_68:  
(15, 58255), (17, 58264), (Start: 27 @58387 has 3 MA's), (Start: 35 @58411 has 2 MA's), (44, 58510), (47, 58546),

Gene: Shenyu\_70 Start: 59444, Stop: 59629, Start Num: 35  
Candidate Starts for Shenyu\_70:  
(12, 59255), (17, 59288), (18, 59300), (Start: 27 @59414 has 3 MA's), (Start: 35 @59444 has 2 MA's), (47, 59579), (48, 59594), (50, 59606),

Gene: SirJeffery\_69 Start: 59013, Stop: 59198, Start Num: 35  
Candidate Starts for SirJeffery\_69:  
(6, 58764), (17, 58866), (18, 58878), (Start: 27 @58989 has 3 MA's), (Start: 35 @59013 has 2 MA's), (44, 59112), (47, 59148), (50, 59175),

Gene: Stinger\_65 Start: 58022, Stop: 58210, Start Num: 34  
Candidate Starts for Stinger\_65:  
(23, 57926), (Start: 31 @58010 has 15 MA's), (Start: 34 @58022 has 6 MA's), (42, 58112),

Gene: StinkyVeggy\_69 Start: 58864, Stop: 59082, Start Num: 27  
Candidate Starts for StinkyVeggy\_69:  
(5, 58621), (7, 58624), (12, 58690), (17, 58723), (18, 58735), (Start: 27 @58864 has 3 MA's), (Start: 30 @58873 has 2 MA's), (Start: 35 @58891 has 2 MA's), (47, 59026),

Gene: Suigeneris\_71 Start: 59137, Stop: 59349, Start Num: 27  
Candidate Starts for Suigeneris\_71:  
(6, 58903), (17, 59005), (18, 59017), (Start: 27 @59137 has 3 MA's), (Start: 30 @59146 has 2 MA's), (Start: 35 @59164 has 2 MA's), (44, 59263), (47, 59299), (48, 59314),

Gene: Vincenzo\_69 Start: 60640, Stop: 60828, Start Num: 36  
Candidate Starts for Vincenzo\_69:  
(33, 60628), (Start: 36 @60640 has 2 MA's), (41, 60682), (45, 60733), (46, 60763), (50, 60793),

Gene: Waleliano\_65 Start: 59062, Stop: 59277, Start Num: 31  
Candidate Starts for Waleliano\_65:

(1, 58537), (2, 58645), (3, 58687), (8, 58855), (14, 58897), (19, 58924), (23, 58978), (Start: 31 @59062 has 15 MA's), (Start: 34 @59074 has 6 MA's), (42, 59164), (45, 59173),

Gene: Zenteno07\_76 Start: 59367, Stop: 59582, Start Num: 34

Candidate Starts for Zenteno07\_76:

(Start: 30 @59352 has 2 MA's), (Start: 34 @59367 has 6 MA's), (40, 59403), (43, 59460), (54, 59556),