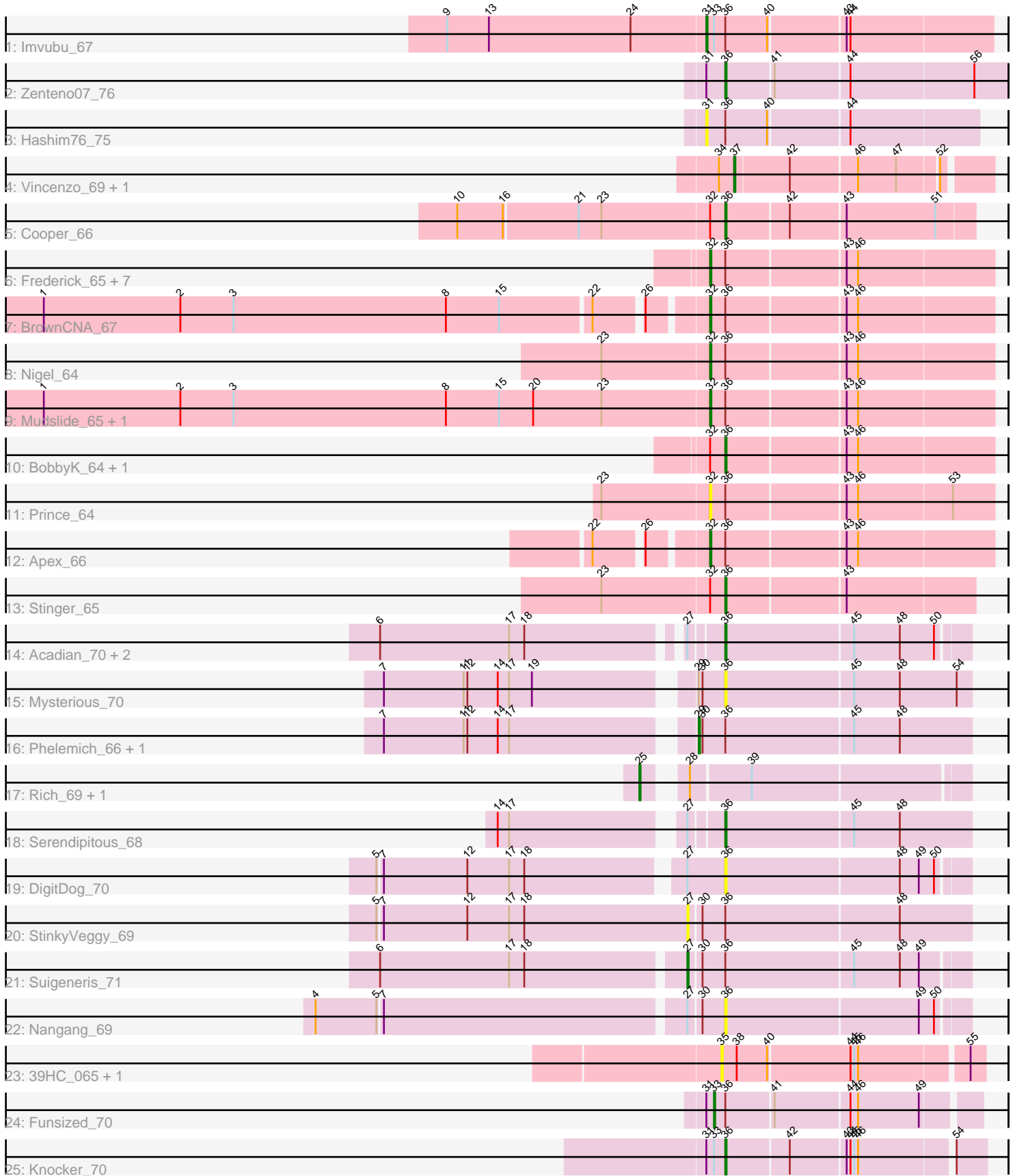


# Pham 156500



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 156500 Report

This analysis was run 04/12/24 on database version 558.

Pham number 156500 has 40 members, 14 are drafts.

Phages represented in each track:

- Track 1 : Imvubu\_67
- Track 2 : Zenteno07\_76
- Track 3 : Hashim76\_75
- Track 4 : Vincenzo\_69, AlanGrant\_70
- Track 5 : Cooper\_66
- Track 6 : Frederick\_65, Poster\_63, Nanao\_64, Hydro\_66, JAMaL\_65, Heath\_65, Hangman\_66, Magpie\_63
- Track 7 : BrownCNA\_67
- Track 8 : Nigel\_64
- Track 9 : Mudslide\_65, Waleliano\_65
- Track 10 : BobbyK\_64, ChrisnMich\_65
- Track 11 : Prince\_64
- Track 12 : Apex\_66
- Track 13 : Stinger\_65
- Track 14 : Acadian\_70, EastView9101\_71, SirJeffery\_69
- Track 15 : Mysterious\_70
- Track 16 : Phelemich\_66, Reprobate\_68
- Track 17 : Rich\_69, Bae\_70
- Track 18 : Serendipitous\_68
- Track 19 : DigitDog\_70
- Track 20 : StinkyVeggy\_69
- Track 21 : Suigeneris\_71
- Track 22 : Nangang\_69
- Track 23 : 39HC\_065, 40BC\_065
- Track 24 : Funsized\_70
- Track 25 : 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 32, it was called in 10 of the 26 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Apex\_66, BrownCNA\_67, Frederick\_65, Hangman\_66, Heath\_65, Hydro\_66, JAMaL\_65, Magpie\_63, Mudslide\_65, Nanao\_64, Nigel\_64, Poster\_63, Prince\_64, Waleliano\_65,

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

- BobbyK\_64, 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, DigitDog\_70, EastView9101\_71, Funsized\_70, Hashim76\_75, Imvubu\_67, Knocker\_70, Mysterious\_70, Nangang\_69, Phelemich\_66, Reprobate\_68, Rich\_69, Serendipitous\_68, SirJeffery\_69, StinkyVeggy\_69, Suigeneris\_71, Vincenzo\_69, Zenteno07\_76,

### Summary by start number:

Start 25:

- Found in 2 of 40 ( 5.0% ) of genes in pham
- Manual Annotations of this start: 2 of 26
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Bae\_70 (B5), Rich\_69 (B5),

Start 27:

- Found in 8 of 40 ( 20.0% ) of genes in pham
- Manual Annotations of this start: 1 of 26
- Called 25.0% of time when present
- Phage (with cluster) where this start called: StinkyVeggy\_69 (B5), Suigeneris\_71 (B5),

Start 29:

- Found in 3 of 40 ( 7.5% ) of genes in pham
- Manual Annotations of this start: 2 of 26
- Called 66.7% of time when present
- Phage (with cluster) where this start called: Phelemich\_66 (B5), Reprobate\_68 (B5),

Start 31:

- Found in 5 of 40 ( 12.5% ) of genes in pham
- Manual Annotations of this start: 1 of 26
- Called 40.0% of time when present
- Phage (with cluster) where this start called: Hashim76\_75 (B13), Imvubu\_67 (B10),

Start 32:

- Found in 18 of 40 ( 45.0% ) of genes in pham
- Manual Annotations of this start: 10 of 26
- Called 77.8% of time when present
- Phage (with cluster) where this start called: Apex\_66 (B4), BrownCNA\_67 (B4), Frederick\_65 (B4), Hangman\_66 (B4), Heath\_65 (B4), Hydro\_66 (B4), JAMaL\_65 (B4), Magpie\_63 (B4), Mudslide\_65 (B4), Nanao\_64 (B4), Nigel\_64 (B4), Poster\_63 (B4), Prince\_64 (B4), Waleliano\_65 (B4),

Start 33:

- Found in 3 of 40 ( 7.5% ) of genes in pham
- Manual Annotations of this start: 1 of 26

- Called 33.3% of time when present
- Phage (with cluster) where this start called: Funsized\_70 (B9),

Start 35:

- Found in 2 of 40 ( 5.0% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: 39HC\_065 (B6), 40BC\_065 (B6),

Start 36:

- Found in 34 of 40 ( 85.0% ) of genes in pham
- Manual Annotations of this start: 7 of 26
- Called 38.2% of time when present
- Phage (with cluster) where this start called: Acadian\_70 (B5), BobbyK\_64 (B4), ChrisnMich\_65 (B4), Cooper\_66 (B4), DigitDog\_70 (B5), EastView9101\_71 (B5), Knocker\_70 (B9), Mysterious\_70 (B5), Nangang\_69 (B5), Serendipitous\_68 (B5), SirJeffery\_69 (B5), Stinger\_65 (B4), Zenteno07\_76 (B13),

Start 37:

- Found in 2 of 40 ( 5.0% ) of genes in pham
- Manual Annotations of this start: 2 of 26
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AlanGrant\_70 (B4), Vincenzo\_69 (B4),

### **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 31 was manually annotated 1 time for cluster B10.

Info for manual annotations of cluster B13:

- Start number 36 was manually annotated 1 time for cluster B13.

Info for manual annotations of cluster B4:

- Start number 32 was manually annotated 10 times for cluster B4.
- Start number 36 was manually annotated 3 times for cluster B4.
- Start number 37 was manually annotated 2 times for cluster B4.

Info for manual annotations of cluster B5:

- Start number 25 was manually annotated 2 times for cluster B5.
- Start number 27 was manually annotated 1 time for cluster B5.
- Start number 29 was manually annotated 2 times for cluster B5.
- Start number 36 was manually annotated 2 times for cluster B5.

Info for manual annotations of cluster B9:

- Start number 33 was manually annotated 1 time for cluster B9.
- Start number 36 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:  
(35, 57490), (38, 57502), (40, 57526), (44, 57589), (45, 57592), (46, 57595), (55, 57676),

Gene: 40BC\_065 Start: 57490, Stop: 57687, Start Num: 35  
Candidate Starts for 40BC\_065:  
(35, 57490), (38, 57502), (40, 57526), (44, 57589), (45, 57592), (46, 57595), (55, 57676),

Gene: Acadian\_70 Start: 58936, Stop: 59121, Start Num: 36  
Candidate Starts for Acadian\_70:  
(6, 58687), (17, 58789), (18, 58801), (Start: 27 @58912 has 1 MA's), (Start: 36 @58936 has 7 MA's),  
(45, 59035), (48, 59071), (50, 59098),

Gene: AlanGrant\_70 Start: 60610, Stop: 60798, Start Num: 37  
Candidate Starts for AlanGrant\_70:  
(34, 60598), (Start: 37 @60610 has 2 MA's), (42, 60652), (46, 60703), (47, 60733), (52, 60763),

Gene: Apex\_66 Start: 59146, Stop: 59361, Start Num: 32  
Candidate Starts for Apex\_66:  
(22, 59071), (26, 59104), (Start: 32 @59146 has 10 MA's), (Start: 36 @59158 has 7 MA's), (43,  
59248), (46, 59257),

Gene: Bae\_70 Start: 59961, Stop: 60203, Start Num: 25  
Candidate Starts for Bae\_70:  
(Start: 25 @59961 has 2 MA's), (28, 59982), (39, 60027),

Gene: BobbyK\_64 Start: 58944, Stop: 59147, Start Num: 36  
Candidate Starts for BobbyK\_64:  
(Start: 32 @58932 has 10 MA's), (Start: 36 @58944 has 7 MA's), (43, 59034), (46, 59043),

Gene: BrownCNA\_67 Start: 59309, Stop: 59524, Start Num: 32  
Candidate Starts for BrownCNA\_67:  
(1, 58805), (2, 58913), (3, 58955), (8, 59123), (15, 59165), (22, 59234), (26, 59267), (Start: 32  
@59309 has 10 MA's), (Start: 36 @59321 has 7 MA's), (43, 59411), (46, 59420),

Gene: ChrisnMich\_65 Start: 58046, Stop: 58249, Start Num: 36  
Candidate Starts for ChrisnMich\_65:  
(Start: 32 @58034 has 10 MA's), (Start: 36 @58046 has 7 MA's), (43, 58136), (46, 58145),

Gene: Cooper\_66 Start: 58486, Stop: 58674, Start Num: 36  
Candidate Starts for Cooper\_66:  
(10, 58279), (16, 58315), (21, 58372), (23, 58390), (Start: 32 @58474 has 10 MA's), (Start: 36  
@58486 has 7 MA's), (42, 58534), (43, 58576), (51, 58645),

Gene: DigitDog\_70 Start: 59079, Stop: 59264, Start Num: 36  
Candidate Starts for DigitDog\_70:  
(5, 58821), (7, 58824), (12, 58890), (17, 58923), (18, 58935), (Start: 27 @59049 has 1 MA's), (Start:  
36 @59079 has 7 MA's), (48, 59214), (49, 59229), (50, 59241),

Gene: EastView9101\_71 Start: 58680, Stop: 58865, Start Num: 36  
Candidate Starts for EastView9101\_71:  
(6, 58431), (17, 58533), (18, 58545), (Start: 27 @58656 has 1 MA's), (Start: 36 @58680 has 7 MA's),  
(45, 58779), (48, 58815), (50, 58842),

Gene: Frederick\_65 Start: 59032, Stop: 59247, Start Num: 32

Candidate Starts for Frederick\_65:

(Start: 32 @59032 has 10 MA's), (Start: 36 @59044 has 7 MA's), (43, 59134), (46, 59143),

Gene: Funsized\_70 Start: 61025, Stop: 61222, Start Num: 33

Candidate Starts for Funsized\_70:

(Start: 31 @61019 has 1 MA's), (Start: 33 @61025 has 1 MA's), (Start: 36 @61034 has 7 MA's), (41, 61070), (44, 61127), (46, 61133), (49, 61181),

Gene: Hangman\_66 Start: 59231, Stop: 59446, Start Num: 32

Candidate Starts for Hangman\_66:

(Start: 32 @59231 has 10 MA's), (Start: 36 @59243 has 7 MA's), (43, 59333), (46, 59342),

Gene: Hashim76\_75 Start: 59146, Stop: 59352, Start Num: 31

Candidate Starts for Hashim76\_75:

(Start: 31 @59146 has 1 MA's), (Start: 36 @59161 has 7 MA's), (40, 59194), (44, 59254),

Gene: Heath\_65 Start: 58858, Stop: 59073, Start Num: 32

Candidate Starts for Heath\_65:

(Start: 32 @58858 has 10 MA's), (Start: 36 @58870 has 7 MA's), (43, 58960), (46, 58969),

Gene: Hydro\_66 Start: 59169, Stop: 59384, Start Num: 32

Candidate Starts for Hydro\_66:

(Start: 32 @59169 has 10 MA's), (Start: 36 @59181 has 7 MA's), (43, 59271), (46, 59280),

Gene: Imvubu\_67 Start: 57772, Stop: 57990, Start Num: 31

Candidate Starts for Imvubu\_67:

(9, 57571), (13, 57604), (24, 57715), (Start: 31 @57772 has 1 MA's), (Start: 33 @57778 has 1 MA's), (Start: 36 @57787 has 7 MA's), (40, 57820), (43, 57877), (44, 57880),

Gene: JAMaL\_65 Start: 59059, Stop: 59274, Start Num: 32

Candidate Starts for JAMaL\_65:

(Start: 32 @59059 has 10 MA's), (Start: 36 @59071 has 7 MA's), (43, 59161), (46, 59170),

Gene: Knocker\_70 Start: 60207, Stop: 60398, Start Num: 36

Candidate Starts for Knocker\_70:

(Start: 31 @60192 has 1 MA's), (Start: 33 @60198 has 1 MA's), (Start: 36 @60207 has 7 MA's), (42, 60255), (43, 60297), (44, 60300), (45, 60303), (46, 60306), (54, 60375),

Gene: Magpie\_63 Start: 58922, Stop: 59137, Start Num: 32

Candidate Starts for Magpie\_63:

(Start: 32 @58922 has 10 MA's), (Start: 36 @58934 has 7 MA's), (43, 59024), (46, 59033),

Gene: Mudslide\_65 Start: 59260, Stop: 59475, Start Num: 32

Candidate Starts for Mudslide\_65:

(1, 58735), (2, 58843), (3, 58885), (8, 59053), (15, 59095), (20, 59122), (23, 59176), (Start: 32 @59260 has 10 MA's), (Start: 36 @59272 has 7 MA's), (43, 59362), (46, 59371),

Gene: Mysterious\_70 Start: 58999, Stop: 59190, Start Num: 36

Candidate Starts for Mysterious\_70:

(7, 58750), (11, 58813), (12, 58816), (14, 58840), (17, 58849), (19, 58867), (Start: 29 @58978 has 2 MA's), (30, 58981), (Start: 36 @58999 has 7 MA's), (45, 59098), (48, 59134), (54, 59179),

Gene: Nanao\_64 Start: 58055, Stop: 58270, Start Num: 32

Candidate Starts for Nanao\_64:

(Start: 32 @58055 has 10 MA's), (Start: 36 @58067 has 7 MA's), (43, 58157), (46, 58166),

Gene: Nangang\_69 Start: 59078, Stop: 59263, Start Num: 36

Candidate Starts for Nangang\_69:

(4, 58769), (5, 58817), (7, 58820), (Start: 27 @59051 has 1 MA's), (30, 59060), (Start: 36 @59078 has 7 MA's), (49, 59228), (50, 59240),

Gene: Nigel\_64 Start: 58087, Stop: 58302, Start Num: 32

Candidate Starts for Nigel\_64:

(23, 58003), (Start: 32 @58087 has 10 MA's), (Start: 36 @58099 has 7 MA's), (43, 58189), (46, 58198),

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

Candidate Starts for Phelemich\_66:

(7, 58582), (11, 58645), (12, 58648), (14, 58672), (17, 58681), (Start: 29 @58810 has 2 MA's), (30, 58813), (Start: 36 @58831 has 7 MA's), (45, 58930), (48, 58966),

Gene: Poster\_63 Start: 58056, Stop: 58271, Start Num: 32

Candidate Starts for Poster\_63:

(Start: 32 @58056 has 10 MA's), (Start: 36 @58068 has 7 MA's), (43, 58158), (46, 58167),

Gene: Prince\_64 Start: 59161, Stop: 59376, Start Num: 32

Candidate Starts for Prince\_64:

(23, 59077), (Start: 32 @59161 has 10 MA's), (Start: 36 @59173 has 7 MA's), (43, 59263), (46, 59272), (53, 59344),

Gene: Reprobate\_68 Start: 58815, Stop: 59027, Start Num: 29

Candidate Starts for Reprobate\_68:

(7, 58587), (11, 58650), (12, 58653), (14, 58677), (17, 58686), (Start: 29 @58815 has 2 MA's), (30, 58818), (Start: 36 @58836 has 7 MA's), (45, 58935), (48, 58971),

Gene: Rich\_69 Start: 60021, Stop: 60251, Start Num: 25

Candidate Starts for Rich\_69:

(Start: 25 @60021 has 2 MA's), (28, 60042), (39, 60087),

Gene: Serendipitous\_68 Start: 58411, Stop: 58602, Start Num: 36

Candidate Starts for Serendipitous\_68:

(14, 58255), (17, 58264), (Start: 27 @58387 has 1 MA's), (Start: 36 @58411 has 7 MA's), (45, 58510), (48, 58546),

Gene: SirJeffery\_69 Start: 59013, Stop: 59198, Start Num: 36

Candidate Starts for SirJeffery\_69:

(6, 58764), (17, 58866), (18, 58878), (Start: 27 @58989 has 1 MA's), (Start: 36 @59013 has 7 MA's), (45, 59112), (48, 59148), (50, 59175),

Gene: Stinger\_65 Start: 58022, Stop: 58210, Start Num: 36

Candidate Starts for Stinger\_65:

(23, 57926), (Start: 32 @58010 has 10 MA's), (Start: 36 @58022 has 7 MA's), (43, 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 1 MA's), (30, 58873), (Start: 36 @58891 has 7 MA's), (48, 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 1 MA's), (30, 59146), (Start: 36 @59164 has 7 MA's), (45, 59263), (48, 59299), (49, 59314),

Gene: Vincenzo\_69 Start: 60640, Stop: 60828, Start Num: 37

Candidate Starts for Vincenzo\_69:

(34, 60628), (Start: 37 @60640 has 2 MA's), (42, 60682), (46, 60733), (47, 60763), (52, 60793),

Gene: Waleliano\_65 Start: 59062, Stop: 59277, Start Num: 32

Candidate Starts for Waleliano\_65:

(1, 58537), (2, 58645), (3, 58687), (8, 58855), (15, 58897), (20, 58924), (23, 58978), (Start: 32 @59062 has 10 MA's), (Start: 36 @59074 has 7 MA's), (43, 59164), (46, 59173),

Gene: Zenteno07\_76 Start: 59367, Stop: 59582, Start Num: 36

Candidate Starts for Zenteno07\_76:

(Start: 31 @59352 has 1 MA's), (Start: 36 @59367 has 7 MA's), (41, 59403), (44, 59460), (56, 59556),