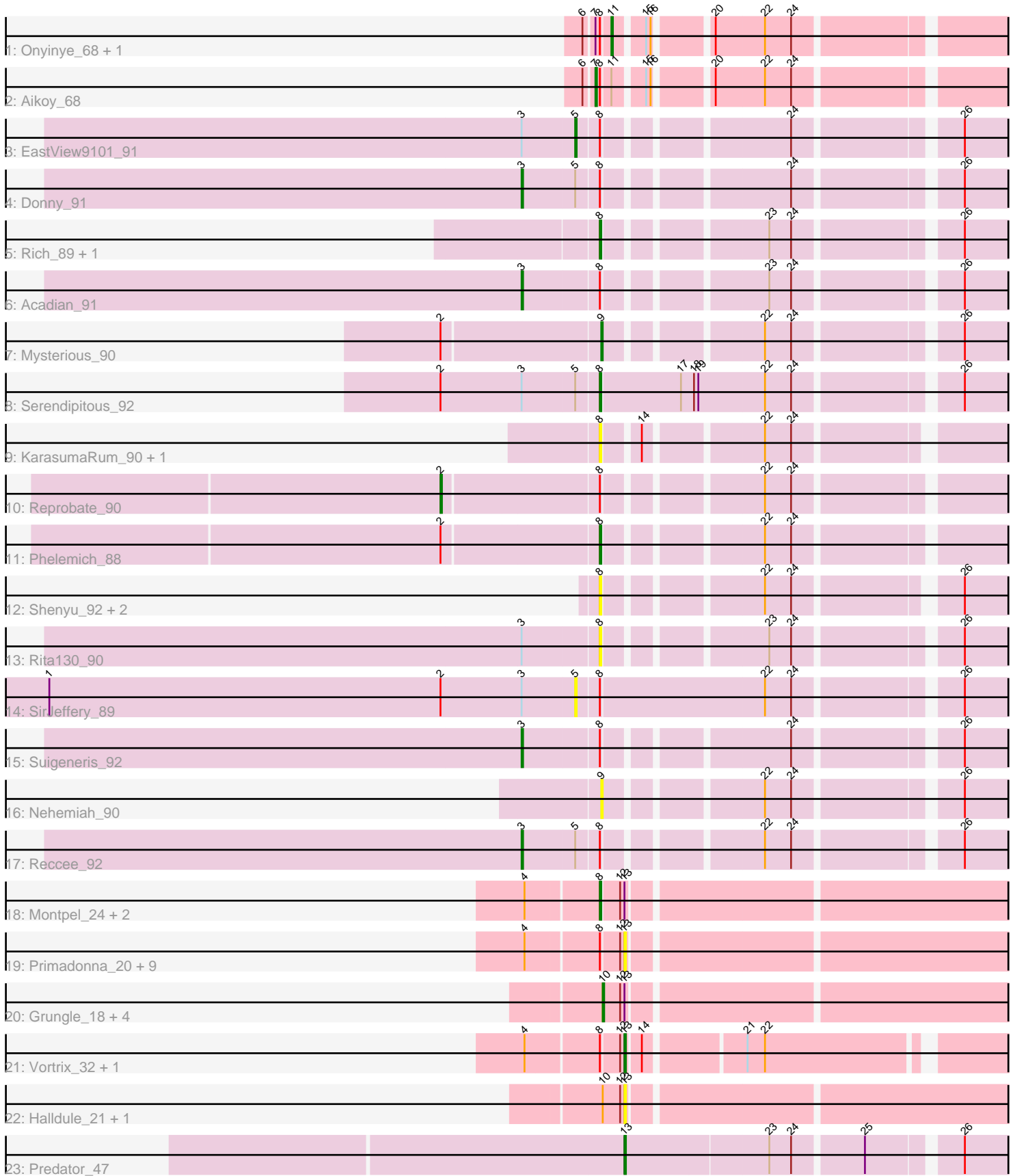


Pham 311742



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 311742 Report

This analysis was run 06/27/26 on database version 652.

Pham number 311742 has 45 members, 23 are drafts.

Phages represented in each track:

- Track 1 : Onyinye\_68, Leopard\_67
- Track 2 : Aikoy\_68
- Track 3 : EastView9101\_91
- Track 4 : Donny\_91
- Track 5 : Rich\_89, Bae\_90
- Track 6 : Acadian\_91
- Track 7 : Mysterious\_90
- Track 8 : Serendipitous\_92
- Track 9 : KarasumaRum\_90, StinkyVeggy\_90
- Track 10 : Reprobate\_90
- Track 11 : Phelemich\_88
- Track 12 : Shenyu\_92, DigitDog\_93, Nangang\_92
- Track 13 : Rita130\_90
- Track 14 : SirJeffery\_89
- Track 15 : Suigeneris\_92
- Track 16 : Nehemiah\_90
- Track 17 : Reccee\_92
- Track 18 : Montpel\_24, Pinkcreek\_17, Lunareta\_24
- Track 19 : Primadonna\_20, Substance289\_22, DeejaClivia\_21, Fongie\_24, Maturis\_25, Spec\_22, Blackdragon\_20, Fixie\_22, Duckfeet\_22, Belieber\_21
- Track 20 : Grungle\_18, Shaqnato\_21, Lukilu\_18, LRRHood\_22, Astraea\_26
- Track 21 : Vortrix\_32, Tonenili\_30
- Track 22 : Halldule\_21, Bezza\_17
- Track 23 : Predator\_47

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

The start number called the most often in the published annotations is 8, it was called in 5 of the 22 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Bae\_90, DigitDog\_93, KarasumaRum\_90, Lunareta\_24, Montpel\_24, Nangang\_92, Phelemich\_88, Pinkcreek\_17, Rich\_89, Rita130\_90, Serendipitous\_92, Shenyu\_92, StinkyVeggy\_90,

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

- Acadian\_91, Aikoy\_68, Belieber\_21, Blackdragon\_20, DeejaClivia\_21, Donny\_91, Duckfeet\_22, EastView9101\_91, Fixie\_22, Fongie\_24, Leopard\_67, Maturis\_25, Onyinye\_68, Primadonna\_20, Reccee\_92, Reprobate\_90, SirJeffery\_89, Spec\_22, Substance289\_22, Suigeneris\_92, Tonenili\_30, Vortrix\_32,

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

- Astraea\_26, Bezza\_17, Grungle\_18, Halldule\_21, LRRHood\_22, Lukilu\_18, Mysterious\_90, Nehemiah\_90, Predator\_47, Shaqnato\_21,

### Summary by start number:

Start 2:

- Found in 5 of 45 ( 11.1% ) of genes in pham
- Manual Annotations of this start: 1 of 22
- Called 20.0% of time when present
- Phage (with cluster) where this start called: Reprobate\_90 (B5),

Start 3:

- Found in 8 of 45 ( 17.8% ) of genes in pham
- Manual Annotations of this start: 4 of 22
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Acadian\_91 (B5), Donny\_91 (B5), Reccee\_92 (B5), Suigeneris\_92 (B5),

Start 5:

- Found in 5 of 45 ( 11.1% ) of genes in pham
- Manual Annotations of this start: 1 of 22
- Called 40.0% of time when present
- Phage (with cluster) where this start called: EastView9101\_91 (B5), SirJeffery\_89 (B5),

Start 7:

- Found in 3 of 45 ( 6.7% ) of genes in pham
- Manual Annotations of this start: 1 of 22
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Aikoy\_68 (AE),

Start 8:

- Found in 35 of 45 ( 77.8% ) of genes in pham
- Manual Annotations of this start: 5 of 22
- Called 37.1% of time when present
- Phage (with cluster) where this start called: Bae\_90 (B5), DigitDog\_93 (B5), KarasumaRum\_90 (B5), Lunareta\_24 (C1), Montpel\_24 (C1), Nangang\_92 (B5), Phelemich\_88 (B5), Pinkcreek\_17 (C1), Rich\_89 (B5), Rita130\_90 (B5), Serendipitous\_92 (B5), Shenyu\_92 (B5), StinkyVeggy\_90 (B5),

Start 9:

- Found in 2 of 45 ( 4.4% ) of genes in pham
- Manual Annotations of this start: 1 of 22
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Mysterious\_90 (B5), Nehemiah\_90 (B5),

Start 10:

- Found in 7 of 45 ( 15.6% ) of genes in pham
- Manual Annotations of this start: 5 of 22
- Called 71.4% of time when present
- Phage (with cluster) where this start called: *Astraea\_26* (C1), *Grungle\_18* (C1), *LRRHood\_22* (C1), *Lukilu\_18* (C1), *Shaqnato\_21* (C1),

Start 11:

- Found in 3 of 45 ( 6.7% ) of genes in pham
- Manual Annotations of this start: 2 of 22
- Called 66.7% of time when present
- Phage (with cluster) where this start called: *Leopard\_67* (AE), *Onyinye\_68* (AE),

Start 13:

- Found in 23 of 45 ( 51.1% ) of genes in pham
- Manual Annotations of this start: 2 of 22
- Called 65.2% of time when present
- Phage (with cluster) where this start called: *Belieber\_21* (C1), *Bezza\_17* (C1), *Blackdragon\_20* (C1), *DeejaClivia\_21* (C1), *Duckfeet\_22* (C1), *Fixie\_22* (C1), *Fongie\_24* (C1), *Halldule\_21* (C1), *Maturis\_25* (C1), *Predator\_47* (H1), *Primadonna\_20* (C1), *Spec\_22* (C1), *Substance289\_22* (C1), *Tonenili\_30* (C1), *Vortrix\_32* (C1),

**Summary by clusters:**

There are 4 clusters represented in this pham: B5, C1, H1, AE,

Info for manual annotations of cluster AE:

- Start number 7 was manually annotated 1 time for cluster AE.
- Start number 11 was manually annotated 2 times for cluster AE.

Info for manual annotations of cluster B5:

- Start number 2 was manually annotated 1 time for cluster B5.
- Start number 3 was manually annotated 4 times for cluster B5.
- Start number 5 was manually annotated 1 time for cluster B5.
- Start number 8 was manually annotated 4 times for cluster B5.
- Start number 9 was manually annotated 1 time for cluster B5.

Info for manual annotations of cluster C1:

- Start number 8 was manually annotated 1 time for cluster C1.
- Start number 10 was manually annotated 5 times for cluster C1.
- Start number 13 was manually annotated 1 time for cluster C1.

Info for manual annotations of cluster H1:

- Start number 13 was manually annotated 1 time for cluster H1.

**Gene Information:**

Gene: *Acadian\_91* Start: 67459, Stop: 67148, Start Num: 3

Candidate Starts for *Acadian\_91*:

(Start: 3 @67459 has 4 MA's), (Start: 8 @67408 has 5 MA's), (23, 67312), (24, 67297), (26, 67195),

Gene: Aikoy\_68 Start: 49001, Stop: 49264, Start Num: 7

Candidate Starts for Aikoy\_68:

(6, 48995), (Start: 7 @49001 has 1 MA's), (Start: 8 @49004 has 5 MA's), (Start: 11 @49010 has 2 MA's), (15, 49028), (16, 49031), (20, 49064), (22, 49097), (24, 49115),

Gene: Astraea\_26 Start: 7926, Stop: 8225, Start Num: 10

Candidate Starts for Astraea\_26:

(Start: 10 @7926 has 5 MA's), (12, 7938), (Start: 13 @7941 has 2 MA's),

Gene: Bae\_90 Start: 67913, Stop: 67653, Start Num: 8

Candidate Starts for Bae\_90:

(Start: 8 @67913 has 5 MA's), (23, 67817), (24, 67802), (26, 67700),

Gene: Belieber\_21 Start: 6975, Stop: 7259, Start Num: 13

Candidate Starts for Belieber\_21:

(4, 6912), (Start: 8 @6960 has 5 MA's), (12, 6972), (Start: 13 @6975 has 2 MA's),

Gene: Bezza\_17 Start: 6854, Stop: 7138, Start Num: 13

Candidate Starts for Bezza\_17:

(Start: 10 @6839 has 5 MA's), (12, 6851), (Start: 13 @6854 has 2 MA's),

Gene: Blackdragon\_20 Start: 6822, Stop: 7106, Start Num: 13

Candidate Starts for Blackdragon\_20:

(4, 6759), (Start: 8 @6807 has 5 MA's), (12, 6819), (Start: 13 @6822 has 2 MA's),

Gene: DeejaClivia\_21 Start: 6864, Stop: 7148, Start Num: 13

Candidate Starts for DeejaClivia\_21:

(4, 6801), (Start: 8 @6849 has 5 MA's), (12, 6861), (Start: 13 @6864 has 2 MA's),

Gene: DigitDog\_93 Start: 67902, Stop: 67645, Start Num: 8

Candidate Starts for DigitDog\_93:

(Start: 8 @67902 has 5 MA's), (22, 67809), (24, 67791), (26, 67692),

Gene: Donny\_91 Start: 67286, Stop: 66975, Start Num: 3

Candidate Starts for Donny\_91:

(Start: 3 @67286 has 4 MA's), (Start: 5 @67250 has 1 MA's), (Start: 8 @67235 has 5 MA's), (24, 67124), (26, 67022),

Gene: Duckfeet\_22 Start: 7515, Stop: 7799, Start Num: 13

Candidate Starts for Duckfeet\_22:

(4, 7452), (Start: 8 @7500 has 5 MA's), (12, 7512), (Start: 13 @7515 has 2 MA's),

Gene: EastView9101\_91 Start: 67442, Stop: 67167, Start Num: 5

Candidate Starts for EastView9101\_91:

(Start: 3 @67478 has 4 MA's), (Start: 5 @67442 has 1 MA's), (Start: 8 @67427 has 5 MA's), (24, 67316), (26, 67214),

Gene: Fixie\_22 Start: 6956, Stop: 7240, Start Num: 13

Candidate Starts for Fixie\_22:

(4, 6893), (Start: 8 @6941 has 5 MA's), (12, 6953), (Start: 13 @6956 has 2 MA's),

Gene: Fongie\_24 Start: 8332, Stop: 8616, Start Num: 13  
Candidate Starts for Fongie\_24:  
(4, 8269), (Start: 8 @8317 has 5 MA's), (12, 8329), (Start: 13 @8332 has 2 MA's),

Gene: Grungle\_18 Start: 5890, Stop: 6189, Start Num: 10  
Candidate Starts for Grungle\_18:  
(Start: 10 @5890 has 5 MA's), (12, 5902), (Start: 13 @5905 has 2 MA's),

Gene: Halldule\_21 Start: 6575, Stop: 6859, Start Num: 13  
Candidate Starts for Halldule\_21:  
(Start: 10 @6560 has 5 MA's), (12, 6572), (Start: 13 @6575 has 2 MA's),

Gene: KarasumaRum\_90 Start: 67527, Stop: 67270, Start Num: 8  
Candidate Starts for KarasumaRum\_90:  
(Start: 8 @67527 has 5 MA's), (14, 67506), (22, 67434), (24, 67416),

Gene: LRRHood\_22 Start: 8459, Stop: 8758, Start Num: 10  
Candidate Starts for LRRHood\_22:  
(Start: 10 @8459 has 5 MA's), (12, 8471), (Start: 13 @8474 has 2 MA's),

Gene: Leopard\_67 Start: 49310, Stop: 49564, Start Num: 11  
Candidate Starts for Leopard\_67:  
(6, 49295), (Start: 7 @49301 has 1 MA's), (Start: 8 @49304 has 5 MA's), (Start: 11 @49310 has 2 MA's), (15, 49328), (16, 49331), (20, 49364), (22, 49397), (24, 49415),

Gene: Lukilu\_18 Start: 6910, Stop: 7209, Start Num: 10  
Candidate Starts for Lukilu\_18:  
(Start: 10 @6910 has 5 MA's), (12, 6922), (Start: 13 @6925 has 2 MA's),

Gene: Lunareta\_24 Start: 8026, Stop: 8349, Start Num: 8  
Candidate Starts for Lunareta\_24:  
(4, 7978), (Start: 8 @8026 has 5 MA's), (12, 8038), (Start: 13 @8041 has 2 MA's),

Gene: Maturis\_25 Start: 8104, Stop: 8388, Start Num: 13  
Candidate Starts for Maturis\_25:  
(4, 8041), (Start: 8 @8089 has 5 MA's), (12, 8101), (Start: 13 @8104 has 2 MA's),

Gene: Montpel\_24 Start: 8026, Stop: 8349, Start Num: 8  
Candidate Starts for Montpel\_24:  
(4, 7978), (Start: 8 @8026 has 5 MA's), (12, 8038), (Start: 13 @8041 has 2 MA's),

Gene: Mysterious\_90 Start: 67326, Stop: 67057, Start Num: 9  
Candidate Starts for Mysterious\_90:  
(Start: 2 @67428 has 1 MA's), (Start: 9 @67326 has 1 MA's), (22, 67233), (24, 67215), (26, 67113),

Gene: Nangang\_92 Start: 67798, Stop: 67541, Start Num: 8  
Candidate Starts for Nangang\_92:  
(Start: 8 @67798 has 5 MA's), (22, 67705), (24, 67687), (26, 67588),

Gene: Nehemiah\_90 Start: 67193, Stop: 66924, Start Num: 9  
Candidate Starts for Nehemiah\_90:  
(Start: 9 @67193 has 1 MA's), (22, 67100), (24, 67082), (26, 66980),

Gene: Onyinye\_68 Start: 49177, Stop: 49431, Start Num: 11  
Candidate Starts for Onyinye\_68:  
(6, 49162), (Start: 7 @49168 has 1 MA's), (Start: 8 @49171 has 5 MA's), (Start: 11 @49177 has 2 MA's), (15, 49195), (16, 49198), (20, 49231), (22, 49264), (24, 49282),

Gene: Phelemich\_88 Start: 67232, Stop: 66972, Start Num: 8  
Candidate Starts for Phelemich\_88:  
(Start: 2 @67334 has 1 MA's), (Start: 8 @67232 has 5 MA's), (22, 67139), (24, 67121),

Gene: Pinkcreek\_17 Start: 6160, Stop: 6459, Start Num: 8  
Candidate Starts for Pinkcreek\_17:  
(4, 6112), (Start: 8 @6160 has 5 MA's), (12, 6172), (Start: 13 @6175 has 2 MA's),

Gene: Predator\_47 Start: 38369, Stop: 38629, Start Num: 13  
Candidate Starts for Predator\_47:  
(Start: 13 @38369 has 2 MA's), (23, 38465), (24, 38480), (25, 38525), (26, 38582),

Gene: Primadonna\_20 Start: 7425, Stop: 7709, Start Num: 13  
Candidate Starts for Primadonna\_20:  
(4, 7362), (Start: 8 @7410 has 5 MA's), (12, 7422), (Start: 13 @7425 has 2 MA's),

Gene: Reccee\_92 Start: 67729, Stop: 67418, Start Num: 3  
Candidate Starts for Reccee\_92:  
(Start: 3 @67729 has 4 MA's), (Start: 5 @67693 has 1 MA's), (Start: 8 @67678 has 5 MA's), (22, 67585), (24, 67567), (26, 67465),

Gene: Reprobate\_90 Start: 67339, Stop: 66977, Start Num: 2  
Candidate Starts for Reprobate\_90:  
(Start: 2 @67339 has 1 MA's), (Start: 8 @67237 has 5 MA's), (22, 67144), (24, 67126),

Gene: Rich\_89 Start: 67466, Stop: 67206, Start Num: 8  
Candidate Starts for Rich\_89:  
(Start: 8 @67466 has 5 MA's), (23, 67370), (24, 67355), (26, 67253),

Gene: Rita130\_90 Start: 67381, Stop: 67121, Start Num: 8  
Candidate Starts for Rita130\_90:  
(Start: 3 @67432 has 4 MA's), (Start: 8 @67381 has 5 MA's), (23, 67285), (24, 67270), (26, 67168),

Gene: Serendipitous\_92 Start: 67406, Stop: 67131, Start Num: 8  
Candidate Starts for Serendipitous\_92:  
(Start: 2 @67511 has 1 MA's), (Start: 3 @67457 has 4 MA's), (Start: 5 @67421 has 1 MA's), (Start: 8 @67406 has 5 MA's), (17, 67352), (18, 67343), (19, 67340), (22, 67295), (24, 67277), (26, 67175),

Gene: Shaqnato\_21 Start: 6893, Stop: 7192, Start Num: 10  
Candidate Starts for Shaqnato\_21:  
(Start: 10 @6893 has 5 MA's), (12, 6905), (Start: 13 @6908 has 2 MA's),

Gene: Shenyu\_92 Start: 67796, Stop: 67539, Start Num: 8  
Candidate Starts for Shenyu\_92:  
(Start: 8 @67796 has 5 MA's), (22, 67703), (24, 67685), (26, 67586),

Gene: SirJeffery\_89 Start: 67479, Stop: 67186, Start Num: 5  
Candidate Starts for SirJeffery\_89:

(1, 67839), (Start: 2 @67569 has 1 MA's), (Start: 3 @67515 has 4 MA's), (Start: 5 @67479 has 1 MA's), (Start: 8 @67464 has 5 MA's), (22, 67353), (24, 67335), (26, 67233),

Gene: Spec\_22 Start: 7254, Stop: 7538, Start Num: 13

Candidate Starts for Spec\_22:

(4, 7191), (Start: 8 @7239 has 5 MA's), (12, 7251), (Start: 13 @7254 has 2 MA's),

Gene: StinkyVeggy\_90 Start: 67527, Stop: 67270, Start Num: 8

Candidate Starts for StinkyVeggy\_90:

(Start: 8 @67527 has 5 MA's), (14, 67506), (22, 67434), (24, 67416),

Gene: Substance289\_22 Start: 7254, Stop: 7538, Start Num: 13

Candidate Starts for Substance289\_22:

(4, 7191), (Start: 8 @7239 has 5 MA's), (12, 7251), (Start: 13 @7254 has 2 MA's),

Gene: Suigeneris\_92 Start: 67674, Stop: 67363, Start Num: 3

Candidate Starts for Suigeneris\_92:

(Start: 3 @67674 has 4 MA's), (Start: 8 @67623 has 5 MA's), (24, 67512), (26, 67410),

Gene: Tonenili\_30 Start: 9490, Stop: 9759, Start Num: 13

Candidate Starts for Tonenili\_30:

(4, 9427), (Start: 8 @9475 has 5 MA's), (12, 9487), (Start: 13 @9490 has 2 MA's), (14, 9499), (21, 9562), (22, 9574),

Gene: Vortrix\_32 Start: 9952, Stop: 10221, Start Num: 13

Candidate Starts for Vortrix\_32:

(4, 9889), (Start: 8 @9937 has 5 MA's), (12, 9949), (Start: 13 @9952 has 2 MA's), (14, 9961), (21, 10024), (22, 10036),