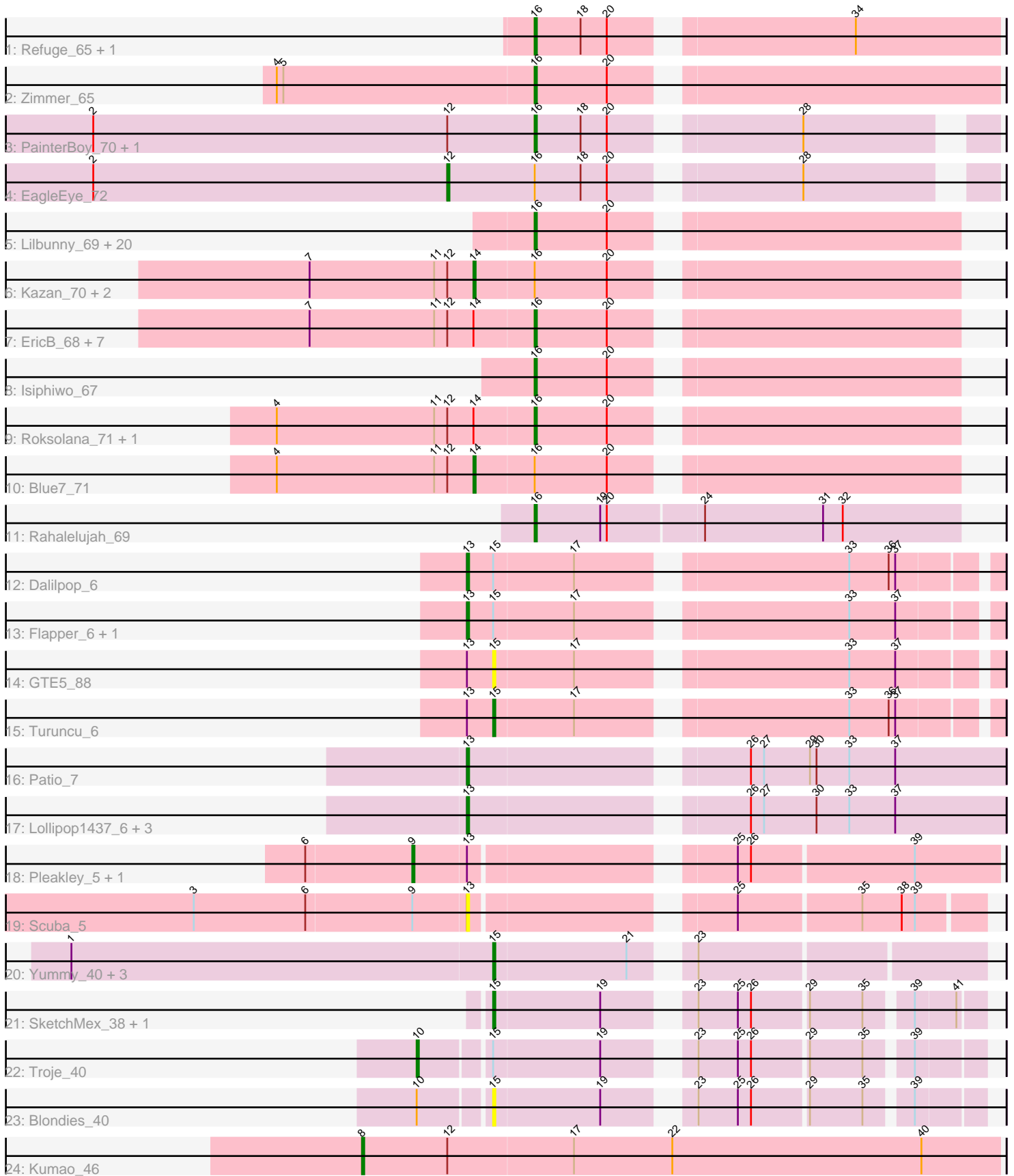


# Pham 216155



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 216155 Report

This analysis was run 02/22/25 on database version 588.

Pham number 216155 has 65 members, 10 are drafts.

Phages represented in each track:

- Track 1 : Refuge\_65, DARTHPhader\_65
- Track 2 : Zimmer\_65
- Track 3 : PainterBoy\_70, Lucyedi\_71
- Track 4 : EagleEye\_72
- Track 5 : Lilbunny\_69, Temprado\_71, ToneTone\_67, Artemis2UCLA\_70, Wiks\_69, Gladiator\_67, Tucker\_70, Hexamo\_70, Zaka\_70, Helmet\_71, Indra\_73, Koko\_72, Yokurt\_69, Garak\_71, Jeffabunny\_70, WunderPhul\_70, BlessJoy\_69, Rifter\_70, Hammer\_70, Zulu\_71, CloudWang3\_71
- Track 6 : Kazan\_70, SmellyB\_69, SuperAwesome\_69
- Track 7 : EricB\_68, Kipper29\_69, Hoot\_64, VohminGhazi\_69, Candra\_67, Newrala\_69, Polyphemus\_69, GreedyLawyer\_66
- Track 8 : Isiphiwo\_67
- Track 9 : Roksolana\_71, Gruunaga\_70
- Track 10 : Blue7\_71
- Track 11 : Rahalelujah\_69
- Track 12 : Dalilpop\_6
- Track 13 : Flapper\_6, GRU1\_89
- Track 14 : GTE5\_88
- Track 15 : Turuncu\_6
- Track 16 : Patio\_7
- Track 17 : Lollipop1437\_6, Float294\_6, Skysand\_6, Ennea\_6
- Track 18 : Pleakley\_5, Fury\_5
- Track 19 : Scuba\_5
- Track 20 : Yummy\_40, MScarn\_41, Buttrmlkdreams\_40, Horseradish\_40
- Track 21 : SketchMex\_38, Biskit\_40
- Track 22 : Troje\_40
- Track 23 : Blondies\_40
- Track 24 : Kumao\_46

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

The start number called the most often in the published annotations is 16, it was called in 32 of the 55 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Artemis2UCLA\_70, BlessJoy\_69, Candra\_67, CloudWang3\_71, DARTHPhader\_65, EricB\_68, Garak\_71, Gladiator\_67, GreedyLawyer\_66, Gruunaga\_70, Hammer\_70, Helmet\_71, Hexamo\_70, Hoot\_64, Indra\_73, Isiphiwo\_67, Jeffabunny\_70, Kipper29\_69, Koko\_72, Lilbunny\_69, Lucyedi\_71, Newrala\_69, PainterBoy\_70, Polyphemos\_69, Rahalelujah\_69, Refuge\_65, Rifter\_70, Roksolana\_71, Temprado\_71, ToneTone\_67, Tucker\_70, VohminGhazi\_69, Wiks\_69, WunderPhul\_70, Yokurt\_69, Zaka\_70, Zimmer\_65, Zulu\_71,

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

- Blue7\_71, EagleEye\_72, Kazan\_70, SmellyB\_69, SuperAwesome\_69,

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

- Biskit\_40, Blondies\_40, Buttrmlkdreams\_40, Dalilpop\_6, Ennea\_6, Flapper\_6, Float294\_6, Fury\_5, GRU1\_89, GTE5\_88, Horseradish\_40, Kumao\_46, Lollipop1437\_6, MScarn\_41, Patio\_7, Pleakley\_5, Scuba\_5, SketchMex\_38, Skysand\_6, Troje\_40, Turuncu\_6, Yummy\_40,

### Summary by start number:

Start 8:

- Found in 1 of 65 ( 1.5% ) of genes in pham
- Manual Annotations of this start: 1 of 55
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Kumao\_46 (singleton),

Start 9:

- Found in 3 of 65 ( 4.6% ) of genes in pham
- Manual Annotations of this start: 2 of 55
- Called 66.7% of time when present
- Phage (with cluster) where this start called: Fury\_5 (CR5), Pleakley\_5 (CR5),

Start 10:

- Found in 2 of 65 ( 3.1% ) of genes in pham
- Manual Annotations of this start: 1 of 55
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Troje\_40 (CT),

Start 12:

- Found in 18 of 65 ( 27.7% ) of genes in pham
- Manual Annotations of this start: 1 of 55
- Called 5.6% of time when present
- Phage (with cluster) where this start called: EagleEye\_72 (A16),

Start 13:

- Found in 13 of 65 ( 20.0% ) of genes in pham
- Manual Annotations of this start: 7 of 55
- Called 69.2% of time when present
- Phage (with cluster) where this start called: Dalilpop\_6 (CR1), Ennea\_6 (CR3), Flapper\_6 (CR1), Float294\_6 (CR3), GRU1\_89 (CR1), Lollipop1437\_6 (CR3), Patio\_7 (CR3), Scuba\_5 (CR5), Skysand\_6 (CR3),

Start 14:

- Found in 14 of 65 ( 21.5% ) of genes in pham
- Manual Annotations of this start: 4 of 55
- Called 28.6% of time when present
- Phage (with cluster) where this start called: Blue7\_71 (A6), Kazan\_70 (A6), SmellyB\_69 (A6), SuperAwesome\_69 (A6),

Start 15:

- Found in 13 of 65 ( 20.0% ) of genes in pham
- Manual Annotations of this start: 7 of 55
- Called 69.2% of time when present
- Phage (with cluster) where this start called: Biskit\_40 (CT), Blondies\_40 (CT), Buttrmlkdreams\_40 (CT), GTE5\_88 (CR1), Horseradish\_40 (CT), MScarn\_41 (CT), SketchMex\_38 (CT), Turuncu\_6 (CR1), Yummy\_40 (CT),

Start 16:

- Found in 43 of 65 ( 66.2% ) of genes in pham
- Manual Annotations of this start: 32 of 55
- Called 88.4% of time when present
- Phage (with cluster) where this start called: Artemis2UCLA\_70 (A6), BlessJoy\_69 (A6), Candra\_67 (A6), CloudWang3\_71 (A6), DarthPhader\_65 (A12), EricB\_68 (A6), Garak\_71 (A6), Gladiator\_67 (A6), GreedyLawyer\_66 (A6), Gruunaga\_70 (A6), Hammer\_70 (A6), Helmet\_71 (A6), Hexamo\_70 (A6), Hoot\_64 (A6), Indra\_73 (A6), Isiphiwo\_67 (A6), Jeffabunny\_70 (A6), Kipper29\_69 (A6), Koko\_72 (A6), Lilbunny\_69 (A6), Lucyedi\_71 (A16), Newrala\_69 (A6), PainterBoy\_70 (A16), Polyphemus\_69 (A6), Rahalelujah\_69 (A9), Refuge\_65 (A12), Rifter\_70 (A6), Roksolana\_71 (A6), Temprado\_71 (A6), ToneTone\_67 (A6), Tucker\_70 (A6), VohminGhazi\_69 (A6), Wiks\_69 (A6), WunderPhul\_70 (A6), Yokurt\_69 (A6), Zaka\_70 (A6), Zimmer\_65 (A12), Zulu\_71 (A6),

### Summary by clusters:

There are 9 clusters represented in this pham: CR3, singleton, CR1, A12, CR5, A16, A6, A9, CT,

Info for manual annotations of cluster A12:

- Start number 16 was manually annotated 3 times for cluster A12.

Info for manual annotations of cluster A16:

- Start number 12 was manually annotated 1 time for cluster A16.
- Start number 16 was manually annotated 2 times for cluster A16.

Info for manual annotations of cluster A6:

- Start number 14 was manually annotated 4 times for cluster A6.
- Start number 16 was manually annotated 26 times for cluster A6.

Info for manual annotations of cluster A9:

- Start number 16 was manually annotated 1 time for cluster A9.

Info for manual annotations of cluster CR1:

- Start number 13 was manually annotated 2 times for cluster CR1.
- Start number 15 was manually annotated 1 time for cluster CR1.

Info for manual annotations of cluster CR3:

- Start number 13 was manually annotated 5 times for cluster CR3.

Info for manual annotations of cluster CR5:

- Start number 9 was manually annotated 2 times for cluster CR5.

Info for manual annotations of cluster CT:

- Start number 10 was manually annotated 1 time for cluster CT.
- Start number 15 was manually annotated 6 times for cluster CT.

### **Gene Information:**

Gene: Artemis2UCLA\_70 Start: 40238, Stop: 40059, Start Num: 16

Candidate Starts for Artemis2UCLA\_70:

(Start: 16 @40238 has 32 MA's), (20, 40205),

Gene: Biskit\_40 Start: 27315, Stop: 27118, Start Num: 15

Candidate Starts for Biskit\_40:

(Start: 15 @27315 has 7 MA's), (19, 27267), (23, 27237), (25, 27219), (26, 27213), (29, 27189), (35, 27165), (39, 27147), (41, 27129),

Gene: BlessJoy\_69 Start: 40664, Stop: 40485, Start Num: 16

Candidate Starts for BlessJoy\_69:

(Start: 16 @40664 has 32 MA's), (20, 40631),

Gene: Blondies\_40 Start: 27633, Stop: 27436, Start Num: 15

Candidate Starts for Blondies\_40:

(Start: 10 @27663 has 1 MA's), (Start: 15 @27633 has 7 MA's), (19, 27585), (23, 27555), (25, 27537), (26, 27531), (29, 27507), (35, 27483), (39, 27465),

Gene: Blue7\_71 Start: 40393, Stop: 40187, Start Num: 14

Candidate Starts for Blue7\_71:

(4, 40483), (11, 40411), (Start: 12 @40405 has 1 MA's), (Start: 14 @40393 has 4 MA's), (Start: 16 @40366 has 32 MA's), (20, 40333),

Gene: Buttrmlkdreams\_40 Start: 27645, Stop: 27442, Start Num: 15

Candidate Starts for Buttrmlkdreams\_40:

(1, 27837), (Start: 15 @27645 has 7 MA's), (21, 27585), (23, 27567),

Gene: Candra\_67 Start: 40269, Stop: 40090, Start Num: 16

Candidate Starts for Candra\_67:

(7, 40371), (11, 40314), (Start: 12 @40308 has 1 MA's), (Start: 14 @40296 has 4 MA's), (Start: 16 @40269 has 32 MA's), (20, 40236),

Gene: CloudWang3\_71 Start: 40750, Stop: 40571, Start Num: 16

Candidate Starts for CloudWang3\_71:

(Start: 16 @40750 has 32 MA's), (20, 40717),

Gene: Dalilpop\_6 Start: 4569, Stop: 4790, Start Num: 13

Candidate Starts for Dalilpop\_6:

(Start: 13 @4569 has 7 MA's), (Start: 15 @4581 has 7 MA's), (17, 4617), (33, 4728), (36, 4746), (37, 4749),

Gene: DarthPhader\_65 Start: 42262, Stop: 42065, Start Num: 16  
Candidate Starts for DarthPhader\_65:  
(Start: 16 @42262 has 32 MA's), (18, 42241), (20, 42229), (34, 42130),

Gene: EagleEye\_72 Start: 41949, Stop: 41728, Start Num: 12  
Candidate Starts for EagleEye\_72:  
(2, 42111), (Start: 12 @41949 has 1 MA's), (Start: 16 @41910 has 32 MA's), (18, 41889), (20, 41877),  
(28, 41802),

Gene: Ennea\_6 Start: 4376, Stop: 4606, Start Num: 13  
Candidate Starts for Ennea\_6:  
(Start: 13 @4376 has 7 MA's), (26, 4490), (27, 4496), (30, 4520), (33, 4535), (37, 4556),

Gene: EricB\_68 Start: 40226, Stop: 40047, Start Num: 16  
Candidate Starts for EricB\_68:  
(7, 40328), (11, 40271), (Start: 12 @40265 has 1 MA's), (Start: 14 @40253 has 4 MA's), (Start: 16  
@40226 has 32 MA's), (20, 40193),

Gene: Flapper\_6 Start: 3864, Stop: 4085, Start Num: 13  
Candidate Starts for Flapper\_6:  
(Start: 13 @3864 has 7 MA's), (Start: 15 @3876 has 7 MA's), (17, 3912), (33, 4023), (37, 4044),

Gene: Float294\_6 Start: 4362, Stop: 4592, Start Num: 13  
Candidate Starts for Float294\_6:  
(Start: 13 @4362 has 7 MA's), (26, 4476), (27, 4482), (30, 4506), (33, 4521), (37, 4542),

Gene: Fury\_5 Start: 2948, Stop: 3193, Start Num: 9  
Candidate Starts for Fury\_5:  
(6, 2900), (Start: 9 @2948 has 2 MA's), (Start: 13 @2972 has 7 MA's), (25, 3077), (26, 3083), (39,  
3155),

Gene: GRU1\_89 Start: 62882, Stop: 63103, Start Num: 13  
Candidate Starts for GRU1\_89:  
(Start: 13 @62882 has 7 MA's), (Start: 15 @62894 has 7 MA's), (17, 62930), (33, 63041), (37, 63062),

Gene: GTE5\_88 Start: 63789, Stop: 63998, Start Num: 15  
Candidate Starts for GTE5\_88:  
(Start: 13 @63777 has 7 MA's), (Start: 15 @63789 has 7 MA's), (17, 63825), (33, 63936), (37, 63957),

Gene: Garak\_71 Start: 40605, Stop: 40426, Start Num: 16  
Candidate Starts for Garak\_71:  
(Start: 16 @40605 has 32 MA's), (20, 40572),

Gene: Gladiator\_67 Start: 39830, Stop: 39651, Start Num: 16  
Candidate Starts for Gladiator\_67:  
(Start: 16 @39830 has 32 MA's), (20, 39797),

Gene: GreedyLawyer\_66 Start: 40199, Stop: 40020, Start Num: 16  
Candidate Starts for GreedyLawyer\_66:  
(7, 40301), (11, 40244), (Start: 12 @40238 has 1 MA's), (Start: 14 @40226 has 4 MA's), (Start: 16  
@40199 has 32 MA's), (20, 40166),

Gene: Gruunaga\_70 Start: 40563, Stop: 40384, Start Num: 16  
Candidate Starts for Gruunaga\_70:  
(4, 40680), (11, 40608), (Start: 12 @40602 has 1 MA's), (Start: 14 @40590 has 4 MA's), (Start: 16 @40563 has 32 MA's), (20, 40530),

Gene: Hammer\_70 Start: 40170, Stop: 39991, Start Num: 16  
Candidate Starts for Hammer\_70:  
(Start: 16 @40170 has 32 MA's), (20, 40137),

Gene: Helmet\_71 Start: 40605, Stop: 40426, Start Num: 16  
Candidate Starts for Helmet\_71:  
(Start: 16 @40605 has 32 MA's), (20, 40572),

Gene: Hexamo\_70 Start: 40235, Stop: 40056, Start Num: 16  
Candidate Starts for Hexamo\_70:  
(Start: 16 @40235 has 32 MA's), (20, 40202),

Gene: Hoot\_64 Start: 38084, Stop: 37905, Start Num: 16  
Candidate Starts for Hoot\_64:  
(7, 38186), (11, 38129), (Start: 12 @38123 has 1 MA's), (Start: 14 @38111 has 4 MA's), (Start: 16 @38084 has 32 MA's), (20, 38051),

Gene: Horseradish\_40 Start: 27173, Stop: 26970, Start Num: 15  
Candidate Starts for Horseradish\_40:  
(1, 27365), (Start: 15 @27173 has 7 MA's), (21, 27113), (23, 27095),

Gene: Indra\_73 Start: 40606, Stop: 40427, Start Num: 16  
Candidate Starts for Indra\_73:  
(Start: 16 @40606 has 32 MA's), (20, 40573),

Gene: Isiphiwo\_67 Start: 39765, Stop: 39586, Start Num: 16  
Candidate Starts for Isiphiwo\_67:  
(Start: 16 @39765 has 32 MA's), (20, 39732),

Gene: Jeffabunny\_70 Start: 40232, Stop: 40053, Start Num: 16  
Candidate Starts for Jeffabunny\_70:  
(Start: 16 @40232 has 32 MA's), (20, 40199),

Gene: Kazan\_70 Start: 40266, Stop: 40060, Start Num: 14  
Candidate Starts for Kazan\_70:  
(7, 40341), (11, 40284), (Start: 12 @40278 has 1 MA's), (Start: 14 @40266 has 4 MA's), (Start: 16 @40239 has 32 MA's), (20, 40206),

Gene: Kipper29\_69 Start: 40252, Stop: 40073, Start Num: 16  
Candidate Starts for Kipper29\_69:  
(7, 40354), (11, 40297), (Start: 12 @40291 has 1 MA's), (Start: 14 @40279 has 4 MA's), (Start: 16 @40252 has 32 MA's), (20, 40219),

Gene: Koko\_72 Start: 41090, Stop: 40911, Start Num: 16  
Candidate Starts for Koko\_72:  
(Start: 16 @41090 has 32 MA's), (20, 41057),

Gene: Kumao\_46 Start: 37602, Stop: 37892, Start Num: 8

Candidate Starts for Kumao\_46:

(Start: 8 @37602 has 1 MA's), (Start: 12 @37641 has 1 MA's), (17, 37698), (22, 37743), (40, 37857),

Gene: Lilbunny\_69 Start: 40236, Stop: 40057, Start Num: 16

Candidate Starts for Lilbunny\_69:

(Start: 16 @40236 has 32 MA's), (20, 40203),

Gene: Lollipop1437\_6 Start: 4364, Stop: 4594, Start Num: 13

Candidate Starts for Lollipop1437\_6:

(Start: 13 @4364 has 7 MA's), (26, 4478), (27, 4484), (30, 4508), (33, 4523), (37, 4544),

Gene: Lucyedi\_71 Start: 42106, Stop: 41924, Start Num: 16

Candidate Starts for Lucyedi\_71:

(2, 42307), (Start: 12 @42145 has 1 MA's), (Start: 16 @42106 has 32 MA's), (18, 42085), (20, 42073), (28, 41998),

Gene: MScarn\_41 Start: 27313, Stop: 27110, Start Num: 15

Candidate Starts for MScarn\_41:

(1, 27505), (Start: 15 @27313 has 7 MA's), (21, 27253), (23, 27235),

Gene: Newrala\_69 Start: 40200, Stop: 40021, Start Num: 16

Candidate Starts for Newrala\_69:

(7, 40302), (11, 40245), (Start: 12 @40239 has 1 MA's), (Start: 14 @40227 has 4 MA's), (Start: 16 @40200 has 32 MA's), (20, 40167),

Gene: PainterBoy\_70 Start: 41815, Stop: 41633, Start Num: 16

Candidate Starts for PainterBoy\_70:

(2, 42016), (Start: 12 @41854 has 1 MA's), (Start: 16 @41815 has 32 MA's), (18, 41794), (20, 41782), (28, 41707),

Gene: Patio\_7 Start: 5032, Stop: 5262, Start Num: 13

Candidate Starts for Patio\_7:

(Start: 13 @5032 has 7 MA's), (26, 5146), (27, 5152), (29, 5173), (30, 5176), (33, 5191), (37, 5212),

Gene: Pleakley\_5 Start: 2948, Stop: 3193, Start Num: 9

Candidate Starts for Pleakley\_5:

(6, 2900), (Start: 9 @2948 has 2 MA's), (Start: 13 @2972 has 7 MA's), (25, 3077), (26, 3083), (39, 3155),

Gene: Polyphemus\_69 Start: 40586, Stop: 40407, Start Num: 16

Candidate Starts for Polyphemus\_69:

(7, 40688), (11, 40631), (Start: 12 @40625 has 1 MA's), (Start: 14 @40613 has 4 MA's), (Start: 16 @40586 has 32 MA's), (20, 40553),

Gene: Rahalelujah\_69 Start: 41050, Stop: 40859, Start Num: 16

Candidate Starts for Rahalelujah\_69:

(Start: 16 @41050 has 32 MA's), (19, 41020), (20, 41017), (24, 40975), (31, 40921), (32, 40912),

Gene: Refuge\_65 Start: 42312, Stop: 42115, Start Num: 16

Candidate Starts for Refuge\_65:

(Start: 16 @42312 has 32 MA's), (18, 42291), (20, 42279), (34, 42180),

Gene: Rifter\_70 Start: 39766, Stop: 39587, Start Num: 16



Candidate Starts for Rifter\_70:  
(Start: 16 @39766 has 32 MA's), (20, 39733),

Gene: Roksolana\_71 Start: 40600, Stop: 40421, Start Num: 16  
Candidate Starts for Roksolana\_71:  
(4, 40717), (11, 40645), (Start: 12 @40639 has 1 MA's), (Start: 14 @40627 has 4 MA's), (Start: 16 @40600 has 32 MA's), (20, 40567),

Gene: Scuba\_5 Start: 3052, Stop: 3264, Start Num: 13  
Candidate Starts for Scuba\_5:  
(3, 2929), (6, 2980), (Start: 9 @3028 has 2 MA's), (Start: 13 @3052 has 7 MA's), (25, 3157), (35, 3211), (38, 3229), (39, 3235),

Gene: SketchMex\_38 Start: 27315, Stop: 27118, Start Num: 15  
Candidate Starts for SketchMex\_38:  
(Start: 15 @27315 has 7 MA's), (19, 27267), (23, 27237), (25, 27219), (26, 27213), (29, 27189), (35, 27165), (39, 27147), (41, 27129),

Gene: Skysand\_6 Start: 4364, Stop: 4594, Start Num: 13  
Candidate Starts for Skysand\_6:  
(Start: 13 @4364 has 7 MA's), (26, 4478), (27, 4484), (30, 4508), (33, 4523), (37, 4544),

Gene: SmellyB\_69 Start: 40260, Stop: 40054, Start Num: 14  
Candidate Starts for SmellyB\_69:  
(7, 40335), (11, 40278), (Start: 12 @40272 has 1 MA's), (Start: 14 @40260 has 4 MA's), (Start: 16 @40233 has 32 MA's), (20, 40200),

Gene: SuperAwesome\_69 Start: 40265, Stop: 40059, Start Num: 14  
Candidate Starts for SuperAwesome\_69:  
(7, 40340), (11, 40283), (Start: 12 @40277 has 1 MA's), (Start: 14 @40265 has 4 MA's), (Start: 16 @40238 has 32 MA's), (20, 40205),

Gene: Temprado\_71 Start: 40605, Stop: 40426, Start Num: 16  
Candidate Starts for Temprado\_71:  
(Start: 16 @40605 has 32 MA's), (20, 40572),

Gene: ToneTone\_67 Start: 40165, Stop: 39986, Start Num: 16  
Candidate Starts for ToneTone\_67:  
(Start: 16 @40165 has 32 MA's), (20, 40132),

Gene: Troje\_40 Start: 27694, Stop: 27467, Start Num: 10  
Candidate Starts for Troje\_40:  
(Start: 10 @27694 has 1 MA's), (Start: 15 @27664 has 7 MA's), (19, 27616), (23, 27586), (25, 27568), (26, 27562), (29, 27538), (35, 27514), (39, 27496),

Gene: Tucker\_70 Start: 40368, Stop: 40189, Start Num: 16  
Candidate Starts for Tucker\_70:  
(Start: 16 @40368 has 32 MA's), (20, 40335),

Gene: Turuncu\_6 Start: 3772, Stop: 3981, Start Num: 15  
Candidate Starts for Turuncu\_6:  
(Start: 13 @3760 has 7 MA's), (Start: 15 @3772 has 7 MA's), (17, 3808), (33, 3919), (36, 3937), (37, 3940),

Gene: VohminGhazi\_69 Start: 40234, Stop: 40055, Start Num: 16

Candidate Starts for VohminGhazi\_69:

(7, 40336), (11, 40279), (Start: 12 @40273 has 1 MA's), (Start: 14 @40261 has 4 MA's), (Start: 16 @40234 has 32 MA's), (20, 40201),

Gene: Wiks\_69 Start: 40236, Stop: 40057, Start Num: 16

Candidate Starts for Wiks\_69:

(Start: 16 @40236 has 32 MA's), (20, 40203),

Gene: WunderPhul\_70 Start: 40234, Stop: 40055, Start Num: 16

Candidate Starts for WunderPhul\_70:

(Start: 16 @40234 has 32 MA's), (20, 40201),

Gene: Yokurt\_69 Start: 40236, Stop: 40057, Start Num: 16

Candidate Starts for Yokurt\_69:

(Start: 16 @40236 has 32 MA's), (20, 40203),

Gene: Yummy\_40 Start: 27287, Stop: 27084, Start Num: 15

Candidate Starts for Yummy\_40:

(1, 27479), (Start: 15 @27287 has 7 MA's), (21, 27227), (23, 27209),

Gene: Zaka\_70 Start: 40236, Stop: 40057, Start Num: 16

Candidate Starts for Zaka\_70:

(Start: 16 @40236 has 32 MA's), (20, 40203),

Gene: Zimmer\_65 Start: 42012, Stop: 41815, Start Num: 16

Candidate Starts for Zimmer\_65:

(4, 42129), (5, 42126), (Start: 16 @42012 has 32 MA's), (20, 41979),

Gene: Zulu\_71 Start: 40614, Stop: 40435, Start Num: 16

Candidate Starts for Zulu\_71:

(Start: 16 @40614 has 32 MA's), (20, 40581),