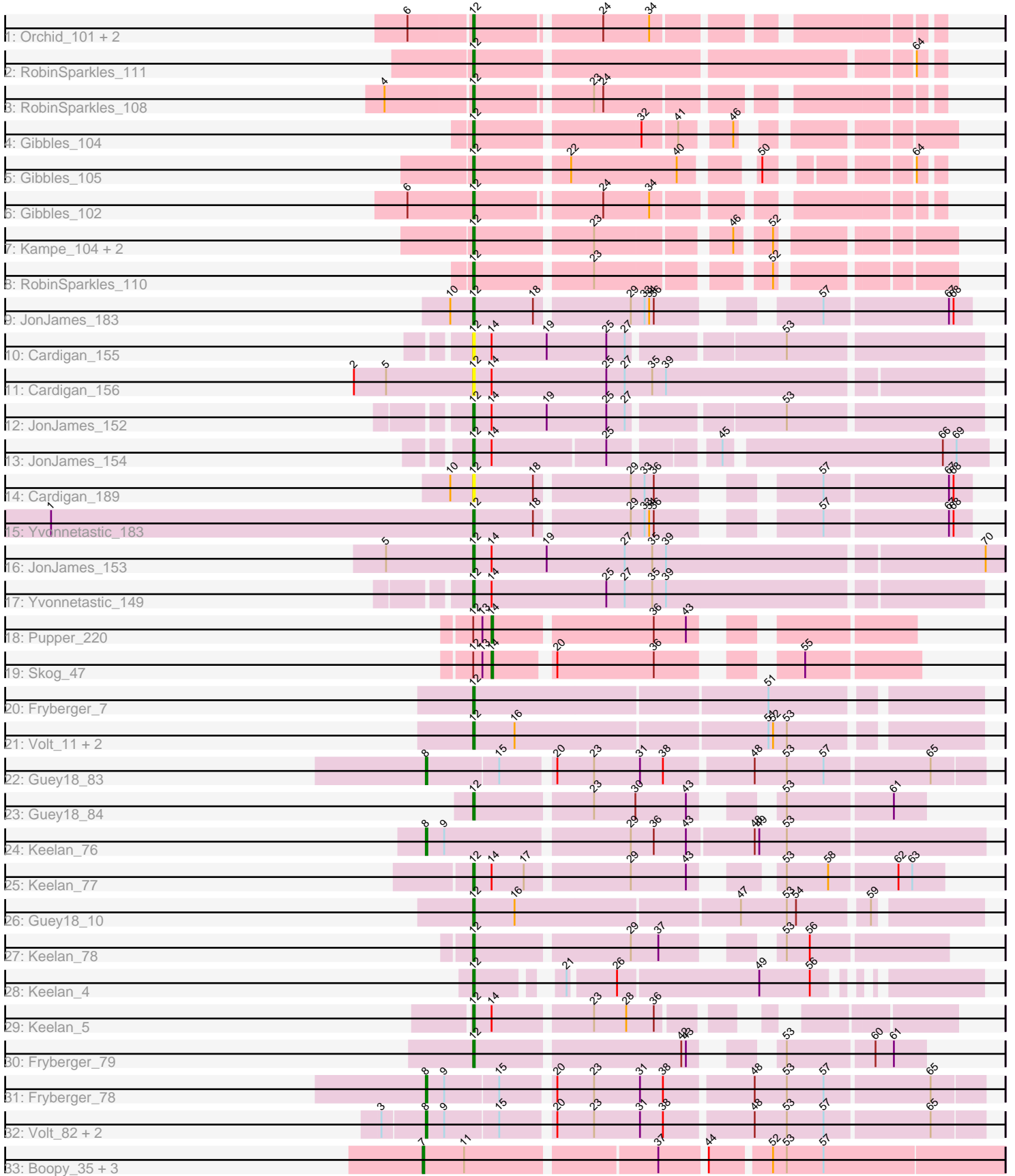


Pham 196636



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 196636 Report

This analysis was run 12/09/24 on database version 580.

Pham number 196636 has 44 members, 3 are drafts.

Phages represented in each track:

- Track 1 : Orchid\_101, Kampe\_102, PatrickStar\_102
- Track 2 : RobinSparkles\_111
- Track 3 : RobinSparkles\_108
- Track 4 : Gibbles\_104
- Track 5 : Gibbles\_105
- Track 6 : Gibbles\_102
- Track 7 : Kampe\_104, PatrickStar\_104, Orchid\_103
- Track 8 : RobinSparkles\_110
- Track 9 : JonJames\_183
- Track 10 : Cardigan\_155
- Track 11 : Cardigan\_156
- Track 12 : JonJames\_152
- Track 13 : JonJames\_154
- Track 14 : Cardigan\_189
- Track 15 : Yvonnetastic\_183
- Track 16 : JonJames\_153
- Track 17 : Yvonnetastic\_149
- Track 18 : Pupper\_220
- Track 19 : Skog\_47
- Track 20 : Fryberger\_7
- Track 21 : Volt\_11, Ziko\_12, Ronaldo\_11
- Track 22 : Guey18\_83
- Track 23 : Guey18\_84
- Track 24 : Keelan\_76
- Track 25 : Keelan\_77
- Track 26 : Guey18\_10
- Track 27 : Keelan\_78
- Track 28 : Keelan\_4
- Track 29 : Keelan\_5
- Track 30 : Fryberger\_79
- Track 31 : Fryberger\_78
- Track 32 : Volt\_82, Ronaldo\_82, Ziko\_82
- Track 33 : Boopy\_35, BlueNGold\_33, Forza\_34, Mareelih\_33

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

The start number called the most often in the published annotations is 12, it was called in 29 of the 41 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Cardigan\_155, Cardigan\_156, Cardigan\_189, Fryberger\_7, Fryberger\_79, Gibbles\_102, Gibbles\_104, Gibbles\_105, Guey18\_10, Guey18\_84, JonJames\_152, JonJames\_153, JonJames\_154, JonJames\_183, Kampe\_102, Kampe\_104, Keelan\_4, Keelan\_5, Keelan\_77, Keelan\_78, Orchid\_101, Orchid\_103, PatrickStar\_102, PatrickStar\_104, RobinSparkles\_108, RobinSparkles\_110, RobinSparkles\_111, Ronaldo\_11, Volt\_11, Yvonnetastic\_149, Yvonnetastic\_183, Ziko\_12,

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

- Pupper\_220, Skog\_47,

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

- BlueNGold\_33, Boopy\_35, Forza\_34, Fryberger\_78, Guey18\_83, Keelan\_76, Mareelih\_33, Ronaldo\_82, Volt\_82, Ziko\_82,

### Summary by start number:

Start 7:

- Found in 4 of 44 ( 9.1% ) of genes in pham
- Manual Annotations of this start: 4 of 41
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BlueNGold\_33 (DS), Boopy\_35 (DS), Forza\_34 (DS), Mareelih\_33 (DS),

Start 8:

- Found in 6 of 44 ( 13.6% ) of genes in pham
- Manual Annotations of this start: 6 of 41
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Fryberger\_78 (DP), Guey18\_83 (DP), Keelan\_76 (DP), Ronaldo\_82 (DP), Volt\_82 (DP), Ziko\_82 (DP),

Start 12:

- Found in 34 of 44 ( 77.3% ) of genes in pham
- Manual Annotations of this start: 29 of 41
- Called 94.1% of time when present
- Phage (with cluster) where this start called: Cardigan\_155 (DD), Cardigan\_156 (DD), Cardigan\_189 (DD), Fryberger\_7 (DP), Fryberger\_79 (DP), Gibbles\_102 (CX), Gibbles\_104 (CX), Gibbles\_105 (CX), Guey18\_10 (DP), Guey18\_84 (DP), JonJames\_152 (DD), JonJames\_153 (DD), JonJames\_154 (DD), JonJames\_183 (DD), Kampe\_102 (CX), Kampe\_104 (CX), Keelan\_4 (DP), Keelan\_5 (DP), Keelan\_77 (DP), Keelan\_78 (DP), Orchid\_101 (CX), Orchid\_103 (CX), PatrickStar\_102 (CX), PatrickStar\_104 (CX), RobinSparkles\_108 (CX), RobinSparkles\_110 (CX), RobinSparkles\_111 (CX), Ronaldo\_11 (DP), Volt\_11 (DP), Yvonnetastic\_149 (DD), Yvonnetastic\_183 (DD), Ziko\_12 (DP),

Start 14:

- Found in 10 of 44 ( 22.7% ) of genes in pham
- Manual Annotations of this start: 2 of 41

- Called 20.0% of time when present
- Phage (with cluster) where this start called: Pupper\_220 (DO), Skog\_47 (DO),

### **Summary by clusters:**

There are 5 clusters represented in this pham: DO, DD, CX, DS, DP,

Info for manual annotations of cluster CX:

- Start number 12 was manually annotated 12 times for cluster CX.

Info for manual annotations of cluster DD:

- Start number 12 was manually annotated 6 times for cluster DD.

Info for manual annotations of cluster DO:

- Start number 14 was manually annotated 2 times for cluster DO.

Info for manual annotations of cluster DP:

- Start number 8 was manually annotated 6 times for cluster DP.
- Start number 12 was manually annotated 11 times for cluster DP.

Info for manual annotations of cluster DS:

- Start number 7 was manually annotated 4 times for cluster DS.

### **Gene Information:**

Gene: BlueNGold\_33 Start: 11811, Stop: 11455, Start Num: 7

Candidate Starts for BlueNGold\_33:

(Start: 7 @11811 has 4 MA's), (11, 11784), (37, 11667), (44, 11640), (52, 11604), (53, 11595), (57, 11571),

Gene: Boopy\_35 Start: 11823, Stop: 11467, Start Num: 7

Candidate Starts for Boopy\_35:

(Start: 7 @11823 has 4 MA's), (11, 11796), (37, 11679), (44, 11652), (52, 11616), (53, 11607), (57, 11583),

Gene: Cardigan\_155 Start: 83851, Stop: 84165, Start Num: 12

Candidate Starts for Cardigan\_155:

(Start: 12 @83851 has 29 MA's), (Start: 14 @83863 has 2 MA's), (19, 83899), (25, 83938), (27, 83950), (53, 84043),

Gene: Cardigan\_156 Start: 84162, Stop: 84485, Start Num: 12

Candidate Starts for Cardigan\_156:

(2, 84084), (5, 84105), (Start: 12 @84162 has 29 MA's), (Start: 14 @84174 has 2 MA's), (25, 84249), (27, 84261), (35, 84279), (39, 84288),

Gene: Cardigan\_189 Start: 93769, Stop: 93488, Start Num: 12

Candidate Starts for Cardigan\_189:

(10, 93784), (Start: 12 @93769 has 29 MA's), (18, 93730), (29, 93673), (33, 93664), (36, 93658), (57, 93580), (67, 93502), (68, 93499),

Gene: Forza\_34 Start: 11739, Stop: 11383, Start Num: 7

Candidate Starts for Forza\_34:

(Start: 7 @11739 has 4 MA's), (11, 11712), (37, 11595), (44, 11568), (52, 11532), (53, 11523), (57, 11499),

Gene: Fryberger\_7 Start: 1604, Stop: 1293, Start Num: 12

Candidate Starts for Fryberger\_7:

(Start: 12 @1604 has 29 MA's), (51, 1418),

Gene: Fryberger\_79 Start: 41758, Stop: 41507, Start Num: 12

Candidate Starts for Fryberger\_79:

(Start: 12 @41758 has 29 MA's), (42, 41629), (43, 41626), (53, 41593), (60, 41539), (61, 41527),

Gene: Fryberger\_78 Start: 41510, Stop: 41169, Start Num: 8

Candidate Starts for Fryberger\_78:

(Start: 8 @41510 has 6 MA's), (9, 41498), (15, 41465), (20, 41435), (23, 41411), (31, 41381), (38, 41366), (48, 41312), (53, 41291), (57, 41267), (65, 41201),

Gene: Gibbles\_104 Start: 73545, Stop: 73285, Start Num: 12

Candidate Starts for Gibbles\_104:

(Start: 12 @73545 has 29 MA's), (32, 73443), (41, 73422), (46, 73395),

Gene: Gibbles\_105 Start: 73790, Stop: 73542, Start Num: 12

Candidate Starts for Gibbles\_105:

(Start: 12 @73790 has 29 MA's), (22, 73733), (40, 73664), (50, 73628), (64, 73556),

Gene: Gibbles\_102 Start: 72919, Stop: 72659, Start Num: 12

Candidate Starts for Gibbles\_102:

(6, 72961), (Start: 12 @72919 has 29 MA's), (24, 72844), (34, 72814),

Gene: Guey18\_83 Start: 42881, Stop: 42540, Start Num: 8

Candidate Starts for Guey18\_83:

(Start: 8 @42881 has 6 MA's), (15, 42836), (20, 42806), (23, 42782), (31, 42752), (38, 42737), (48, 42683), (53, 42662), (57, 42638), (65, 42572),

Gene: Guey18\_84 Start: 43129, Stop: 42878, Start Num: 12

Candidate Starts for Guey18\_84:

(Start: 12 @43129 has 29 MA's), (23, 43057), (30, 43030), (43, 42997), (53, 42964), (61, 42898),

Gene: Guey18\_10 Start: 2298, Stop: 1987, Start Num: 12

Candidate Starts for Guey18\_10:

(Start: 12 @2298 has 29 MA's), (16, 2271), (47, 2130), (53, 2100), (54, 2094), (59, 2052),

Gene: JonJames\_183 Start: 94689, Stop: 94408, Start Num: 12

Candidate Starts for JonJames\_183:

(10, 94704), (Start: 12 @94689 has 29 MA's), (18, 94650), (29, 94593), (33, 94584), (34, 94581), (36, 94578), (57, 94500), (67, 94422), (68, 94419),

Gene: JonJames\_152 Start: 84680, Stop: 84994, Start Num: 12

Candidate Starts for JonJames\_152:

(Start: 12 @84680 has 29 MA's), (Start: 14 @84692 has 2 MA's), (19, 84728), (25, 84767), (27, 84779), (53, 84872),

Gene: JonJames\_154 Start: 85323, Stop: 85631, Start Num: 12

Candidate Starts for JonJames\_154:

(Start: 12 @85323 has 29 MA's), (Start: 14 @85335 has 2 MA's), (25, 85407), (45, 85467), (66, 85602), (69, 85611),

Gene: JonJames\_153 Start: 84991, Stop: 85326, Start Num: 12

Candidate Starts for JonJames\_153:

(5, 84934), (Start: 12 @84991 has 29 MA's), (Start: 14 @85003 has 2 MA's), (19, 85039), (27, 85090), (35, 85108), (39, 85117), (70, 85315),

Gene: Kampe\_102 Start: 72589, Stop: 72329, Start Num: 12

Candidate Starts for Kampe\_102:

(6, 72628), (Start: 12 @72589 has 29 MA's), (24, 72514), (34, 72484),

Gene: Kampe\_104 Start: 73218, Stop: 72952, Start Num: 12

Candidate Starts for Kampe\_104:

(Start: 12 @73218 has 29 MA's), (23, 73146), (46, 73068), (52, 73050),

Gene: Keelan\_76 Start: 41390, Stop: 41040, Start Num: 8

Candidate Starts for Keelan\_76:

(Start: 8 @41390 has 6 MA's), (9, 41378), (29, 41264), (36, 41249), (43, 41228), (48, 41186), (49, 41183), (53, 41165),

Gene: Keelan\_77 Start: 41653, Stop: 41387, Start Num: 12

Candidate Starts for Keelan\_77:

(Start: 12 @41653 has 29 MA's), (Start: 14 @41641 has 2 MA's), (17, 41620), (29, 41557), (43, 41521), (53, 41485), (58, 41458), (62, 41416), (63, 41407),

Gene: Keelan\_78 Start: 41921, Stop: 41655, Start Num: 12

Candidate Starts for Keelan\_78:

(Start: 12 @41921 has 29 MA's), (29, 41825), (37, 41807), (53, 41756), (56, 41741),

Gene: Keelan\_4 Start: 977, Stop: 702, Start Num: 12

Candidate Starts for Keelan\_4:

(Start: 12 @977 has 29 MA's), (21, 935), (26, 908), (49, 818), (56, 785),

Gene: Keelan\_5 Start: 1224, Stop: 967, Start Num: 12

Candidate Starts for Keelan\_5:

(Start: 12 @1224 has 29 MA's), (Start: 14 @1212 has 2 MA's), (23, 1152), (28, 1131), (36, 1113),

Gene: Mareelih\_33 Start: 11268, Stop: 10912, Start Num: 7

Candidate Starts for Mareelih\_33:

(Start: 7 @11268 has 4 MA's), (11, 11241), (37, 11124), (44, 11097), (52, 11061), (53, 11052), (57, 11028),

Gene: Orchid\_101 Start: 72590, Stop: 72330, Start Num: 12

Candidate Starts for Orchid\_101:

(6, 72629), (Start: 12 @72590 has 29 MA's), (24, 72515), (34, 72485),

Gene: Orchid\_103 Start: 73219, Stop: 72953, Start Num: 12

Candidate Starts for Orchid\_103:

(Start: 12 @73219 has 29 MA's), (23, 73147), (46, 73069), (52, 73051),

Gene: PatrickStar\_102 Start: 72589, Stop: 72329, Start Num: 12

Candidate Starts for PatrickStar\_102:  
(6, 72628), (Start: 12 @72589 has 29 MA's), (24, 72514), (34, 72484),

Gene: PatrickStar\_104 Start: 73218, Stop: 72952, Start Num: 12  
Candidate Starts for PatrickStar\_104:  
(Start: 12 @73218 has 29 MA's), (23, 73146), (46, 73068), (52, 73050),

Gene: Pupper\_220 Start: 145511, Stop: 145744, Start Num: 14  
Candidate Starts for Pupper\_220:  
(Start: 12 @145499 has 29 MA's), (13, 145505), (Start: 14 @145511 has 2 MA's), (36, 145610), (43, 145631),

Gene: RobinSparkles\_111 Start: 74296, Stop: 74018, Start Num: 12  
Candidate Starts for RobinSparkles\_111:  
(Start: 12 @74296 has 29 MA's), (64, 74032),

Gene: RobinSparkles\_108 Start: 73384, Stop: 73124, Start Num: 12  
Candidate Starts for RobinSparkles\_108:  
(4, 73438), (Start: 12 @73384 has 29 MA's), (23, 73315), (24, 73309),

Gene: RobinSparkles\_110 Start: 74021, Stop: 73755, Start Num: 12  
Candidate Starts for RobinSparkles\_110:  
(Start: 12 @74021 has 29 MA's), (23, 73949), (52, 73853),

Gene: Ronaldo\_11 Start: 2730, Stop: 2419, Start Num: 12  
Candidate Starts for Ronaldo\_11:  
(Start: 12 @2730 has 29 MA's), (16, 2703), (51, 2544), (52, 2541), (53, 2532),

Gene: Ronaldo\_82 Start: 42654, Stop: 42313, Start Num: 8  
Candidate Starts for Ronaldo\_82:  
(3, 42681), (Start: 8 @42654 has 6 MA's), (9, 42642), (15, 42609), (20, 42579), (23, 42555), (31, 42525), (38, 42510), (48, 42456), (53, 42435), (57, 42411), (65, 42345),

Gene: Skog\_47 Start: 20557, Stop: 20790, Start Num: 14  
Candidate Starts for Skog\_47:  
(Start: 12 @20545 has 29 MA's), (13, 20551), (Start: 14 @20557 has 2 MA's), (20, 20590), (36, 20653), (55, 20719),

Gene: Volt\_11 Start: 2730, Stop: 2419, Start Num: 12  
Candidate Starts for Volt\_11:  
(Start: 12 @2730 has 29 MA's), (16, 2703), (51, 2544), (52, 2541), (53, 2532),

Gene: Volt\_82 Start: 42818, Stop: 42477, Start Num: 8  
Candidate Starts for Volt\_82:  
(3, 42845), (Start: 8 @42818 has 6 MA's), (9, 42806), (15, 42773), (20, 42743), (23, 42719), (31, 42689), (38, 42674), (48, 42620), (53, 42599), (57, 42575), (65, 42509),

Gene: Yvonnetastic\_183 Start: 91588, Stop: 91307, Start Num: 12  
Candidate Starts for Yvonnetastic\_183:  
(1, 91864), (Start: 12 @91588 has 29 MA's), (18, 91549), (29, 91492), (33, 91483), (34, 91480), (36, 91477), (57, 91399), (67, 91321), (68, 91318),

Gene: Yvonnetastic\_149 Start: 81383, Stop: 81706, Start Num: 12

Candidate Starts for Yvonnetastic\_149:

(Start: 12 @81383 has 29 MA's), (Start: 14 @81395 has 2 MA's), (25, 81470), (27, 81482), (35, 81500), (39, 81509),

Gene: Ziko\_12 Start: 2744, Stop: 2433, Start Num: 12

Candidate Starts for Ziko\_12:

(Start: 12 @2744 has 29 MA's), (16, 2717), (51, 2558), (52, 2555), (53, 2546),

Gene: Ziko\_82 Start: 42640, Stop: 42299, Start Num: 8

Candidate Starts for Ziko\_82:

(3, 42667), (Start: 8 @42640 has 6 MA's), (9, 42628), (15, 42595), (20, 42565), (23, 42541), (31, 42511), (38, 42496), (48, 42442), (53, 42421), (57, 42397), (65, 42331),