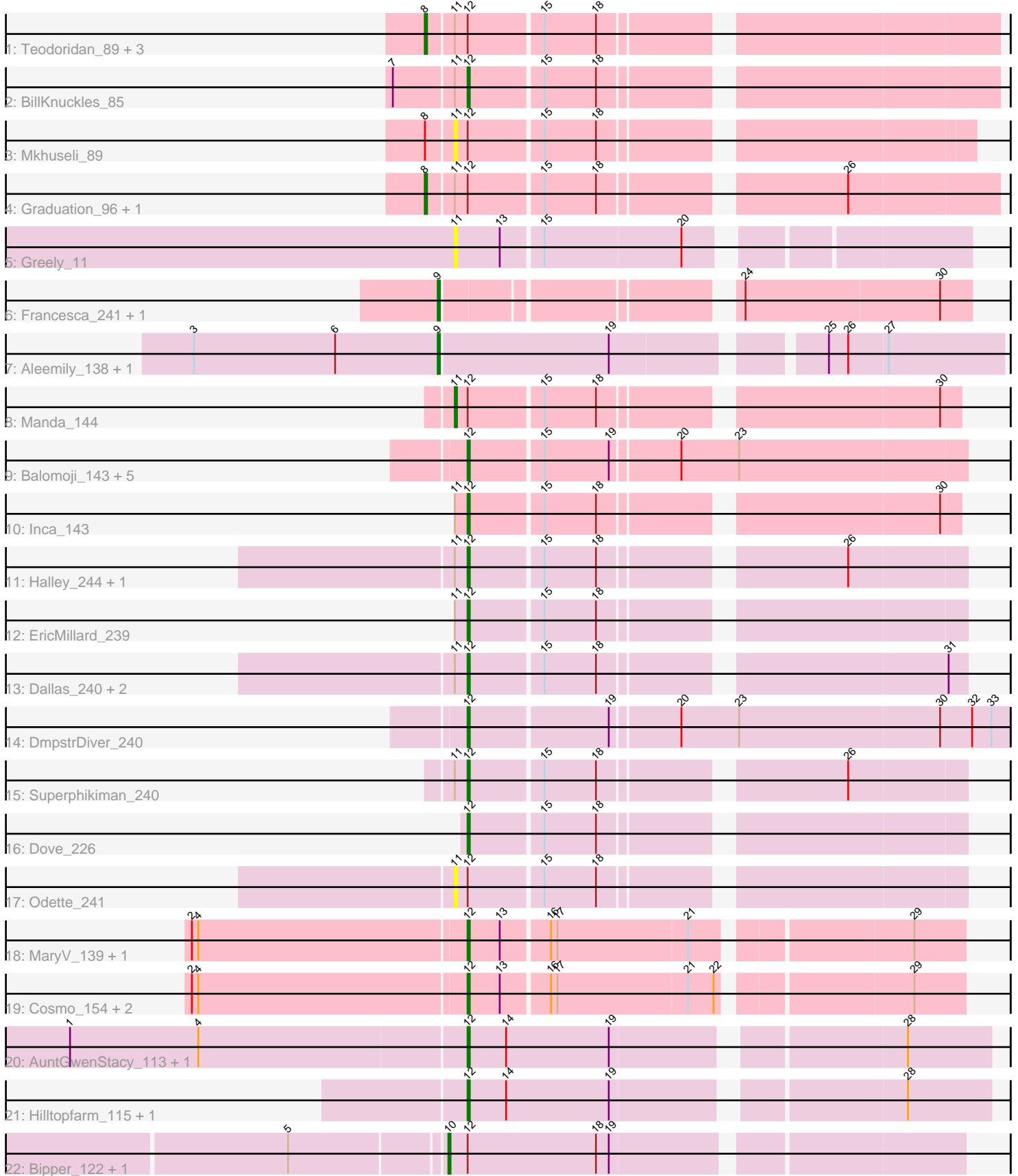


# Pham 311764



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 311764 Report

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

Pham number 311764 has 42 members, 6 are drafts.

Phages represented in each track:

- Track 1 : Teodoridan\_89, Payneful\_82, Marchy\_86, PattyP\_91
- Track 2 : BillKnuckles\_85
- Track 3 : Mkhuseleli\_89
- Track 4 : Graduation\_96, Cueylyss\_76
- Track 5 : Greely\_11
- Track 6 : Francesca\_241, Dorin\_240
- Track 7 : Aleemily\_138, ModicumRichard\_140
- Track 8 : Manda\_144
- Track 9 : Balomoji\_143, Asriel\_140, Flypotenuse\_138, Daikon\_145, Barbarian\_142, Traaww1\_140
- Track 10 : Inca\_143
- Track 11 : Halley\_244, Zelink\_235
- Track 12 : EricMillard\_239
- Track 13 : Dallas\_240, Rearden\_242, Ejimix\_233
- Track 14 : DmpstrDiver\_240
- Track 15 : Superphikiman\_240
- Track 16 : Dove\_226
- Track 17 : Odette\_241
- Track 18 : MaryV\_139, Wildcat\_153
- Track 19 : Cosmo\_154, Azrael100\_146, EniyanLRS\_146
- Track 20 : AuntGwenStacy\_113, Typha\_112
- Track 21 : Hilltopfarm\_115, Faiyaz\_113
- Track 22 : Bipper\_122, Cracklewink\_122

### ***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 24 of the 36 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Asriel\_140, AuntGwenStacy\_113, Azrael100\_146, Balomoji\_143, Barbarian\_142, BillKnuckles\_85, Cosmo\_154, Daikon\_145, Dallas\_240, DmpstrDiver\_240, Dove\_226, Ejimix\_233, EniyanLRS\_146, EricMillard\_239, Faiyaz\_113, Flypotenuse\_138, Halley\_244, Hilltopfarm\_115, Inca\_143, MaryV\_139, Rearden\_242,

Superphikiman\_240, Traaww1\_140, Typha\_112, Wildcat\_153, Zelink\_235,

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

- Bipper\_122, Cracklewink\_122, Cueyllyss\_76, Graduation\_96, Manda\_144, Marchy\_86, Mkhuseleli\_89, Odette\_241, PattyP\_91, Payneful\_82, Teodoridan\_89,

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

- Aleemily\_138, Dorin\_240, Francesca\_241, Greely\_11, ModicumRichard\_140,

### Summary by start number:

Start 8:

- Found in 7 of 42 ( 16.7% ) of genes in pham
- Manual Annotations of this start: 5 of 36
- Called 85.7% of time when present
- Phage (with cluster) where this start called: Cueyllyss\_76 (A1), Graduation\_96 (A1), Marchy\_86 (A1), PattyP\_91 (A1), Payneful\_82 (A1), Teodoridan\_89 (A1),

Start 9:

- Found in 4 of 42 ( 9.5% ) of genes in pham
- Manual Annotations of this start: 4 of 36
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Aleemily\_138 (DZ), Dorin\_240 (CG), Francesca\_241 (CG), ModicumRichard\_140 (DZ),

Start 10:

- Found in 2 of 42 ( 4.8% ) of genes in pham
- Manual Annotations of this start: 2 of 36
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Bipper\_122 (Y), Cracklewink\_122 (Y),

Start 11:

- Found in 19 of 42 ( 45.2% ) of genes in pham
- Manual Annotations of this start: 1 of 36
- Called 21.1% of time when present
- Phage (with cluster) where this start called: Greely\_11 (C2), Manda\_144 (E), Mkhuseleli\_89 (A1), Odette\_241 (J),

Start 12:

- Found in 37 of 42 ( 88.1% ) of genes in pham
- Manual Annotations of this start: 24 of 36
- Called 70.3% of time when present
- Phage (with cluster) where this start called: Asriel\_140 (E), AuntGwenStacy\_113 (Y), Azrael100\_146 (V), Balomoji\_143 (E), Barbarian\_142 (E), BillKnuckles\_85 (A1), Cosmo\_154 (V), Daikon\_145 (E), Dallas\_240 (J), DmpstrDiver\_240 (J), Dove\_226 (J), Ejimix\_233 (J), EniyanLRS\_146 (V), EricMillard\_239 (J), Faiyaz\_113 (Y), Flypotenuse\_138 (E), Halley\_244 (J), Hilltopfarm\_115 (Y), Inca\_143 (E), MaryV\_139 (V), Rearden\_242 (J), Superphikiman\_240 (J), Traaww1\_140 (E), Typha\_112 (Y), Wildcat\_153 (V), Zelink\_235 (J),

### Summary by clusters:

There are 8 clusters represented in this pham: E, J, CG, A1, DZ, V, Y, C2,

Info for manual annotations of cluster A1:

- Start number 8 was manually annotated 5 times for cluster A1.
- Start number 12 was manually annotated 1 time for cluster A1.

Info for manual annotations of cluster CG:

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

Info for manual annotations of cluster DZ:

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

Info for manual annotations of cluster E:

- Start number 11 was manually annotated 1 time for cluster E.
- Start number 12 was manually annotated 6 times for cluster E.

Info for manual annotations of cluster J:

- Start number 12 was manually annotated 8 times for cluster J.

Info for manual annotations of cluster V:

- Start number 12 was manually annotated 5 times for cluster V.

Info for manual annotations of cluster Y:

- Start number 10 was manually annotated 2 times for cluster Y.
- Start number 12 was manually annotated 4 times for cluster Y.

### **Gene Information:**

Gene: Aleemily\_138 Start: 74358, Stop: 74113, Start Num: 9

Candidate Starts for Aleemily\_138:

(3, 74472), (6, 74406), (Start: 9 @74358 has 4 MA's), (19, 74280), (25, 74193), (26, 74184), (27, 74166),

Gene: Asriel\_140 Start: 73109, Stop: 72885, Start Num: 12

Candidate Starts for Asriel\_140:

(Start: 12 @73109 has 24 MA's), (15, 73076), (19, 73046), (20, 73016), (23, 72989),

Gene: AuntGwenStacy\_113 Start: 67958, Stop: 68185, Start Num: 12

Candidate Starts for AuntGwenStacy\_113:

(1, 67775), (4, 67835), (Start: 12 @67958 has 24 MA's), (14, 67976), (19, 68024), (28, 68147),

Gene: Azrael100\_146 Start: 70067, Stop: 69852, Start Num: 12

Candidate Starts for Azrael100\_146:

(2, 70193), (4, 70190), (Start: 12 @70067 has 24 MA's), (13, 70052), (16, 70031), (17, 70028), (21, 69968), (22, 69956), (29, 69875),

Gene: Balomoji\_143 Start: 74934, Stop: 74710, Start Num: 12

Candidate Starts for Balomoji\_143:

(Start: 12 @74934 has 24 MA's), (15, 74901), (19, 74871), (20, 74841), (23, 74814),

Gene: Barbarian\_142 Start: 73109, Stop: 72885, Start Num: 12

Candidate Starts for Barbarian\_142:

(Start: 12 @73109 has 24 MA's), (15, 73076), (19, 73046), (20, 73016), (23, 72989),

Gene: BillKnuckles\_85 Start: 51113, Stop: 50886, Start Num: 12

Candidate Starts for BillKnuckles\_85:

(7, 51146), (Start: 11 @51119 has 1 MA's), (Start: 12 @51113 has 24 MA's), (15, 51080), (18, 51056),

Gene: Bipper\_122 Start: 72041, Stop: 72268, Start Num: 10

Candidate Starts for Bipper\_122:

(5, 71972), (Start: 10 @72041 has 2 MA's), (Start: 12 @72050 has 24 MA's), (18, 72110), (19, 72116),

Gene: Cosmo\_154 Start: 70231, Stop: 70016, Start Num: 12

Candidate Starts for Cosmo\_154:

(2, 70357), (4, 70354), (Start: 12 @70231 has 24 MA's), (13, 70216), (16, 70195), (17, 70192), (21, 70132), (22, 70120), (29, 70039),

Gene: Cracklewink\_122 Start: 71193, Stop: 71420, Start Num: 10

Candidate Starts for Cracklewink\_122:

(5, 71124), (Start: 10 @71193 has 2 MA's), (Start: 12 @71202 has 24 MA's), (18, 71262), (19, 71268),

Gene: Cueylyss\_76 Start: 47966, Stop: 47721, Start Num: 8

Candidate Starts for Cueylyss\_76:

(Start: 8 @47966 has 5 MA's), (Start: 11 @47954 has 1 MA's), (Start: 12 @47948 has 24 MA's), (15, 47915), (18, 47891), (26, 47789),

Gene: Daikon\_145 Start: 74182, Stop: 73958, Start Num: 12

Candidate Starts for Daikon\_145:

(Start: 12 @74182 has 24 MA's), (15, 74149), (19, 74119), (20, 74089), (23, 74062),

Gene: Dallas\_240 Start: 110966, Stop: 110754, Start Num: 12

Candidate Starts for Dallas\_240:

(Start: 11 @110972 has 1 MA's), (Start: 12 @110966 has 24 MA's), (15, 110933), (18, 110909), (31, 110762),

Gene: DmpstrDiver\_240 Start: 111353, Stop: 111108, Start Num: 12

Candidate Starts for DmpstrDiver\_240:

(Start: 12 @111353 has 24 MA's), (19, 111290), (20, 111260), (23, 111233), (30, 111140), (32, 111125), (33, 111116),

Gene: Dorin\_240 Start: 123030, Stop: 123254, Start Num: 9

Candidate Starts for Dorin\_240:

(Start: 9 @123030 has 4 MA's), (24, 123150), (30, 123240),

Gene: Dove\_226 Start: 108097, Stop: 107885, Start Num: 12

Candidate Starts for Dove\_226:

(Start: 12 @108097 has 24 MA's), (15, 108064), (18, 108040),

Gene: Ejimix\_233 Start: 111044, Stop: 110832, Start Num: 12

Candidate Starts for Ejimix\_233:

(Start: 11 @111050 has 1 MA's), (Start: 12 @111044 has 24 MA's), (15, 111011), (18, 110987), (31, 110840),

Gene: EniyanLRS\_146 Start: 70560, Stop: 70345, Start Num: 12

Candidate Starts for EniyanLRS\_146:  
(2, 70686), (4, 70683), (Start: 12 @70560 has 24 MA's), (13, 70545), (16, 70524), (17, 70521), (21, 70461), (22, 70449), (29, 70368),

Gene: EricMillard\_239 Start: 112923, Stop: 112711, Start Num: 12  
Candidate Starts for EricMillard\_239:  
(Start: 11 @112929 has 1 MA's), (Start: 12 @112923 has 24 MA's), (15, 112890), (18, 112866),

Gene: Faiyaz\_113 Start: 67824, Stop: 68051, Start Num: 12  
Candidate Starts for Faiyaz\_113:  
(Start: 12 @67824 has 24 MA's), (14, 67842), (19, 67890), (28, 68013),

Gene: Flypotenuse\_138 Start: 73763, Stop: 73539, Start Num: 12  
Candidate Starts for Flypotenuse\_138:  
(Start: 12 @73763 has 24 MA's), (15, 73730), (19, 73700), (20, 73670), (23, 73643),

Gene: Francesca\_241 Start: 123673, Stop: 123897, Start Num: 9  
Candidate Starts for Francesca\_241:  
(Start: 9 @123673 has 4 MA's), (24, 123793), (30, 123883),

Gene: Graduation\_96 Start: 52305, Stop: 52060, Start Num: 8  
Candidate Starts for Graduation\_96:  
(Start: 8 @52305 has 5 MA's), (Start: 11 @52293 has 1 MA's), (Start: 12 @52287 has 24 MA's), (15, 52254), (18, 52230), (26, 52128),

Gene: Greely\_11 Start: 4707, Stop: 4925, Start Num: 11  
Candidate Starts for Greely\_11:  
(Start: 11 @4707 has 1 MA's), (13, 4728), (15, 4746), (20, 4809),

Gene: Halley\_244 Start: 111452, Stop: 111240, Start Num: 12  
Candidate Starts for Halley\_244:  
(Start: 11 @111458 has 1 MA's), (Start: 12 @111452 has 24 MA's), (15, 111419), (18, 111395), (26, 111293),

Gene: Hilltopfarm\_115 Start: 68647, Stop: 68874, Start Num: 12  
Candidate Starts for Hilltopfarm\_115:  
(Start: 12 @68647 has 24 MA's), (14, 68665), (19, 68713), (28, 68836),

Gene: Inca\_143 Start: 72597, Stop: 72388, Start Num: 12  
Candidate Starts for Inca\_143:  
(Start: 11 @72603 has 1 MA's), (Start: 12 @72597 has 24 MA's), (15, 72564), (18, 72540), (30, 72396),

Gene: Manda\_144 Start: 74266, Stop: 74051, Start Num: 11  
Candidate Starts for Manda\_144:  
(Start: 11 @74266 has 1 MA's), (Start: 12 @74260 has 24 MA's), (15, 74227), (18, 74203), (30, 74059),

Gene: Marchy\_86 Start: 48590, Stop: 48835, Start Num: 8  
Candidate Starts for Marchy\_86:  
(Start: 8 @48590 has 5 MA's), (Start: 11 @48602 has 1 MA's), (Start: 12 @48608 has 24 MA's), (15, 48641), (18, 48665),

Gene: MaryV\_139 Start: 68409, Stop: 68194, Start Num: 12  
Candidate Starts for MaryV\_139:

(2, 68535), (4, 68532), (Start: 12 @68409 has 24 MA's), (13, 68394), (16, 68373), (17, 68370), (21, 68310), (29, 68217),

Gene: Mkhuseleli\_89 Start: 49243, Stop: 49022, Start Num: 11

Candidate Starts for Mkhuseleli\_89:

(Start: 8 @49255 has 5 MA's), (Start: 11 @49243 has 1 MA's), (Start: 12 @49237 has 24 MA's), (15, 49204), (18, 49180),

Gene: ModicumRichard\_140 Start: 75253, Stop: 75008, Start Num: 9

Candidate Starts for ModicumRichard\_140:

(3, 75367), (6, 75301), (Start: 9 @75253 has 4 MA's), (19, 75175), (25, 75088), (26, 75079), (27, 75061),

Gene: Odette\_241 Start: 111900, Stop: 111682, Start Num: 11

Candidate Starts for Odette\_241:

(Start: 11 @111900 has 1 MA's), (Start: 12 @111894 has 24 MA's), (15, 111861), (18, 111837),

Gene: PattyP\_91 Start: 51310, Stop: 51065, Start Num: 8

Candidate Starts for PattyP\_91:

(Start: 8 @51310 has 5 MA's), (Start: 11 @51298 has 1 MA's), (Start: 12 @51292 has 24 MA's), (15, 51259), (18, 51235),

Gene: Payneful\_82 Start: 47682, Stop: 47927, Start Num: 8

Candidate Starts for Payneful\_82:

(Start: 8 @47682 has 5 MA's), (Start: 11 @47694 has 1 MA's), (Start: 12 @47700 has 24 MA's), (15, 47733), (18, 47757),

Gene: Rearden\_242 Start: 110103, Stop: 109891, Start Num: 12

Candidate Starts for Rearden\_242:

(Start: 11 @110109 has 1 MA's), (Start: 12 @110103 has 24 MA's), (15, 110070), (18, 110046), (31, 109899),

Gene: Superphikiman\_240 Start: 109188, Stop: 108976, Start Num: 12

Candidate Starts for Superphikiman\_240:

(Start: 11 @109194 has 1 MA's), (Start: 12 @109188 has 24 MA's), (15, 109155), (18, 109131), (26, 109029),

Gene: Teodoridan\_89 Start: 49160, Stop: 48915, Start Num: 8

Candidate Starts for Teodoridan\_89:

(Start: 8 @49160 has 5 MA's), (Start: 11 @49148 has 1 MA's), (Start: 12 @49142 has 24 MA's), (15, 49109), (18, 49085),

Gene: Traaww1\_140 Start: 73938, Stop: 73714, Start Num: 12

Candidate Starts for Traaww1\_140:

(Start: 12 @73938 has 24 MA's), (15, 73905), (19, 73875), (20, 73845), (23, 73818),

Gene: Typha\_112 Start: 67959, Stop: 68186, Start Num: 12

Candidate Starts for Typha\_112:

(1, 67776), (4, 67836), (Start: 12 @67959 has 24 MA's), (14, 67977), (19, 68025), (28, 68148),

Gene: Wildcat\_153 Start: 70302, Stop: 70087, Start Num: 12

Candidate Starts for Wildcat\_153:

(2, 70428), (4, 70425), (Start: 12 @70302 has 24 MA's), (13, 70287), (16, 70266), (17, 70263), (21, 70203), (29, 70110),

Gene: Zelink\_235 Start: 110841, Stop: 110635, Start Num: 12

Candidate Starts for Zelink\_235:

(Start: 11 @110847 has 1 MA's), (Start: 12 @110841 has 24 MA's), (15, 110808), (18, 110784), (26, 110682),