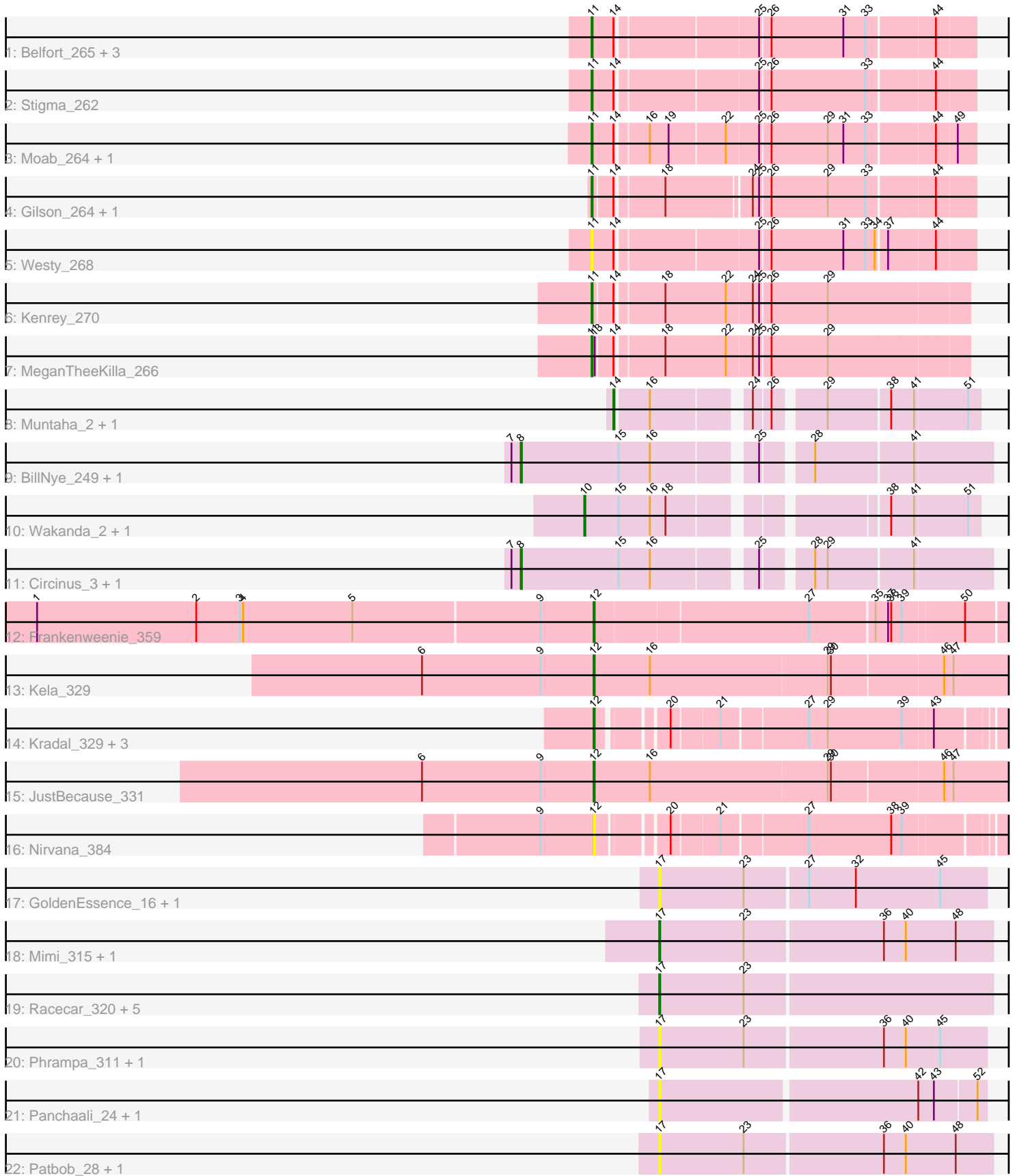


Pham 206903



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 206903 Report

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

Pham number 206903 has 44 members, 12 are drafts.

Phages represented in each track:

- Track 1 : Belfort\_265, Comrade\_260, Karp\_265, SparkleGoddess\_264
- Track 2 : Stigma\_262
- Track 3 : Moab\_264, Patelgo\_267
- Track 4 : Gilson\_264, Francob\_267
- Track 5 : Westy\_268
- Track 6 : Kenrey\_270
- Track 7 : MeganTheeKilla\_266
- Track 8 : Muntaha\_2, Muntaha\_265
- Track 9 : BillNye\_249, BillNye\_3
- Track 10 : Wakanda\_2, Wakanda\_261
- Track 11 : Circinus\_3, Circinus\_248
- Track 12 : Frankenweenie\_359
- Track 13 : Kela\_329
- Track 14 : Kradal\_329, Quantum\_327, EhyElimayoE\_332, Satis\_329
- Track 15 : JustBecause\_331
- Track 16 : Nirvana\_384
- Track 17 : GoldenEssence\_16, GoldenEssence\_298
- Track 18 : Mimi\_315, Mimi\_30
- Track 19 : Racecar\_320, Bloom\_319, Talia1610\_316, Talia1610\_30, Bloom\_32, Racecar\_31
- Track 20 : Phrampa\_311, Phrampa\_26
- Track 21 : Panchaali\_24, Panchaali\_323
- Track 22 : Patbob\_28, Patbob\_318

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

The start number called the most often in the published annotations is 11, it was called in 11 of the 32 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Belfort\_265, Comrade\_260, Francob\_267, Gilson\_264, Karp\_265, Kenrey\_270, MeganTheeKilla\_266, Moab\_264, Patelgo\_267, SparkleGoddess\_264, Stigma\_262, Westy\_268,

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

- 

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

- BillNye\_249, BillNye\_3, Bloom\_319, Bloom\_32, Circinus\_248, Circinus\_3, EhyElimayoE\_332, Frankenweenie\_359, GoldenEssence\_16, GoldenEssence\_298, JustBecause\_331, Kela\_329, Kradal\_329, Mimi\_30, Mimi\_315, Muntaha\_2, Muntaha\_265, Nirvana\_384, Panchaali\_24, Panchaali\_323, Patbob\_28, Patbob\_318, Phrampa\_26, Phrampa\_311, Quantum\_327, Racecar\_31, Racecar\_320, Satis\_329, Talia1610\_30, Talia1610\_316, Wakanda\_2, Wakanda\_261,

### Summary by start number:

Start 8:

- Found in 4 of 44 ( 9.1% ) of genes in pham
- Manual Annotations of this start: 4 of 32
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BillNye\_249 (BK2), BillNye\_3 (BK2), Circinus\_248 (BK2), Circinus\_3 (BK2),

Start 10:

- Found in 2 of 44 ( 4.5% ) of genes in pham
- Manual Annotations of this start: 2 of 32
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Wakanda\_2 (BK2), Wakanda\_261 (BK2),

Start 11:

- Found in 12 of 44 ( 27.3% ) of genes in pham
- Manual Annotations of this start: 11 of 32
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Belfort\_265 (BK1), Comrade\_260 (BK1), Francob\_267 (BK1), Gilson\_264 (BK1), Karp\_265 (BK1), Kenrey\_270 (BK1), MeganTheeKilla\_266 (BK1), Moab\_264 (BK1), Patelgo\_267 (BK1), SparkleGoddess\_264 (BK1), Stigma\_262 (BK1), Westy\_268 (BK1),

Start 12:

- Found in 8 of 44 ( 18.2% ) of genes in pham
- Manual Annotations of this start: 7 of 32
- Called 100.0% of time when present
- Phage (with cluster) where this start called: EhyElimayoE\_332 (BM), Frankenweenie\_359 (BM), JustBecause\_331 (BM), Kela\_329 (BM), Kradal\_329 (BM), Nirvana\_384 (BM), Quantum\_327 (BM), Satis\_329 (BM),

Start 14:

- Found in 14 of 44 ( 31.8% ) of genes in pham
- Manual Annotations of this start: 2 of 32
- Called 14.3% of time when present
- Phage (with cluster) where this start called: Muntaha\_2 (BK2), Muntaha\_265 (BK2),

Start 17:

- Found in 16 of 44 ( 36.4% ) of genes in pham
- Manual Annotations of this start: 6 of 32

- Called 100.0% of time when present
- Phage (with cluster) where this start called: Bloom\_319 (FC), Bloom\_32 (FC), GoldenEssence\_16 (FC), GoldenEssence\_298 (FC), Mimi\_30 (FC), Mimi\_315 (FC), Panchaali\_24 (FC), Panchaali\_323 (FC), Patbob\_28 (FC), Patbob\_318 (FC), Phrampa\_26 (FC), Phrampa\_311 (FC), Racecar\_31 (FC), Racecar\_320 (FC), Talia1610\_30 (FC), Talia1610\_316 (FC),

### **Summary by clusters:**

There are 4 clusters represented in this pham: BM, FC, BK1, BK2,

Info for manual annotations of cluster BK1:

- Start number 11 was manually annotated 11 times for cluster BK1.

Info for manual annotations of cluster BK2:

- Start number 8 was manually annotated 4 times for cluster BK2.
- Start number 10 was manually annotated 2 times for cluster BK2.
- Start number 14 was manually annotated 2 times for cluster BK2.

Info for manual annotations of cluster BM:

- Start number 12 was manually annotated 7 times for cluster BM.

Info for manual annotations of cluster FC:

- Start number 17 was manually annotated 6 times for cluster FC.

### **Gene Information:**

Gene: Belfort\_265 Start: 126637, Stop: 126978, Start Num: 11

Candidate Starts for Belfort\_265:

(Start: 11 @126637 has 11 MA's), (Start: 14 @126658 has 2 MA's), (25, 126784), (26, 126793), (31, 126862), (33, 126883), (44, 126943),

Gene: BillNye\_249 Start: 125861, Stop: 126271, Start Num: 8

Candidate Starts for BillNye\_249:

(7, 125852), (Start: 8 @125861 has 4 MA's), (15, 125954), (16, 125984), (25, 126071), (28, 126110), (41, 126200),

Gene: BillNye\_3 Start: 1039, Stop: 1449, Start Num: 8

Candidate Starts for BillNye\_3:

(7, 1030), (Start: 8 @1039 has 4 MA's), (15, 1132), (16, 1162), (25, 1249), (28, 1288), (41, 1378),

Gene: Bloom\_319 Start: 187552, Stop: 187866, Start Num: 17

Candidate Starts for Bloom\_319:

(Start: 17 @187552 has 6 MA's), (23, 187633),

Gene: Bloom\_32 Start: 14077, Stop: 14391, Start Num: 17

Candidate Starts for Bloom\_32:

(Start: 17 @14077 has 6 MA's), (23, 14158),

Gene: Circinus\_3 Start: 1078, Stop: 1488, Start Num: 8

Candidate Starts for Circinus\_3:

(7, 1069), (Start: 8 @1078 has 4 MA's), (15, 1171), (16, 1201), (25, 1288), (28, 1327), (29, 1339), (41, 1417),

Gene: Circinus\_248 Start: 125405, Stop: 125815, Start Num: 8

Candidate Starts for Circinus\_248:

(7, 125396), (Start: 8 @125405 has 4 MA's), (15, 125498), (16, 125528), (25, 125615), (28, 125654), (29, 125666), (41, 125744),

Gene: Comrade\_260 Start: 126776, Stop: 127117, Start Num: 11

Candidate Starts for Comrade\_260:

(Start: 11 @126776 has 11 MA's), (Start: 14 @126797 has 2 MA's), (25, 126923), (26, 126932), (31, 127001), (33, 127022), (44, 127082),

Gene: EhyElimayoE\_332 Start: 178762, Stop: 178415, Start Num: 12

Candidate Starts for EhyElimayoE\_332:

(Start: 12 @178762 has 7 MA's), (20, 178708), (21, 178666), (27, 178588), (29, 178570), (39, 178501), (43, 178474),

Gene: Francob\_267 Start: 126631, Stop: 126966, Start Num: 11

Candidate Starts for Francob\_267:

(Start: 11 @126631 has 11 MA's), (Start: 14 @126649 has 2 MA's), (18, 126691), (24, 126766), (25, 126772), (26, 126781), (29, 126835), (33, 126871), (44, 126931),

Gene: Frankenweenie\_359 Start: 192379, Stop: 192002, Start Num: 12

Candidate Starts for Frankenweenie\_359:

(1, 192910), (2, 192757), (3, 192715), (4, 192712), (5, 192607), (9, 192430), (Start: 12 @192379 has 8 MA's), (27, 192181), (35, 192121), (37, 192109), (38, 192106), (39, 192097), (50, 192040),

Gene: Gilson\_264 Start: 126168, Stop: 126503, Start Num: 11

Candidate Starts for Gilson\_264:

(Start: 11 @126168 has 11 MA's), (Start: 14 @126186 has 2 MA's), (18, 126228), (24, 126303), (25, 126309), (26, 126318), (29, 126372), (33, 126408), (44, 126468),

Gene: GoldenEssence\_16 Start: 7886, Stop: 8194, Start Num: 17

Candidate Starts for GoldenEssence\_16:

(Start: 17 @7886 has 6 MA's), (23, 7967), (27, 8024), (32, 8069), (45, 8150),

Gene: GoldenEssence\_298 Start: 178439, Stop: 178747, Start Num: 17

Candidate Starts for GoldenEssence\_298:

(Start: 17 @178439 has 6 MA's), (23, 178520), (27, 178577), (32, 178622), (45, 178703),

Gene: JustBecause\_331 Start: 175882, Stop: 175484, Start Num: 12

Candidate Starts for JustBecause\_331:

(6, 176047), (9, 175933), (Start: 12 @175882 has 7 MA's), (16, 175828), (29, 175660), (30, 175657), (46, 175555), (47, 175546),

Gene: Karp\_265 Start: 128234, Stop: 128575, Start Num: 11

Candidate Starts for Karp\_265:

(Start: 11 @128234 has 11 MA's), (Start: 14 @128255 has 2 MA's), (25, 128381), (26, 128390), (31, 128459), (33, 128480), (44, 128540),

Gene: Kela\_329 Start: 176783, Stop: 176385, Start Num: 12

Candidate Starts for Kela\_329:

(6, 176948), (9, 176834), (Start: 12 @176783 has 7 MA's), (16, 176729), (29, 176561), (30, 176558), (46, 176456), (47, 176447),

Gene: Kenrey\_270 Start: 127380, Stop: 127718, Start Num: 11

Candidate Starts for Kenrey\_270:

(Start: 11 @127380 has 11 MA's), (Start: 14 @127398 has 2 MA's), (18, 127440), (22, 127497), (24, 127521), (25, 127527), (26, 127536), (29, 127590),

Gene: Kradal\_329 Start: 178759, Stop: 178412, Start Num: 12

Candidate Starts for Kradal\_329:

(Start: 12 @178759 has 7 MA's), (20, 178705), (21, 178663), (27, 178585), (29, 178567), (39, 178498), (43, 178471),

Gene: MeganTheeKilla\_266 Start: 125979, Stop: 126317, Start Num: 11

Candidate Starts for MeganTheeKilla\_266:

(Start: 11 @125979 has 11 MA's), (13, 125982), (Start: 14 @125997 has 2 MA's), (18, 126039), (22, 126096), (24, 126120), (25, 126126), (26, 126135), (29, 126189),

Gene: Mimi\_315 Start: 186189, Stop: 186503, Start Num: 17

Candidate Starts for Mimi\_315:

(Start: 17 @186189 has 6 MA's), (23, 186270), (36, 186399), (40, 186420), (48, 186468),

Gene: Mimi\_30 Start: 13529, Stop: 13843, Start Num: 17

Candidate Starts for Mimi\_30:

(Start: 17 @13529 has 6 MA's), (23, 13610), (36, 13739), (40, 13760), (48, 13808),

Gene: Moab\_264 Start: 127015, Stop: 127356, Start Num: 11

Candidate Starts for Moab\_264:

(Start: 11 @127015 has 11 MA's), (Start: 14 @127036 has 2 MA's), (16, 127063), (19, 127081), (22, 127132), (25, 127162), (26, 127171), (29, 127225), (31, 127240), (33, 127261), (44, 127321), (49, 127339),

Gene: Muntaha\_2 Start: 749, Stop: 1054, Start Num: 14

Candidate Starts for Muntaha\_2:

(Start: 14 @749 has 2 MA's), (16, 779), (24, 860), (26, 875), (29, 917), (38, 974), (41, 995), (51, 1043),

Gene: Muntaha\_265 Start: 126426, Stop: 126731, Start Num: 14

Candidate Starts for Muntaha\_265:

(Start: 14 @126426 has 2 MA's), (16, 126456), (24, 126537), (26, 126552), (29, 126594), (38, 126651), (41, 126672), (51, 126720),

Gene: Nirvana\_384 Start: 195822, Stop: 195472, Start Num: 12

Candidate Starts for Nirvana\_384:

(9, 195873), (Start: 12 @195822 has 7 MA's), (20, 195765), (21, 195723), (27, 195645), (38, 195567), (39, 195558),

Gene: Panchaali\_24 Start: 9758, Stop: 10060, Start Num: 17

Candidate Starts for Panchaali\_24:

(Start: 17 @9758 has 6 MA's), (42, 9998), (43, 10013), (52, 10052),

Gene: Panchaali\_323 Start: 188816, Stop: 189118, Start Num: 17

Candidate Starts for Panchaali\_323:

(Start: 17 @188816 has 6 MA's), (42, 189056), (43, 189071), (52, 189110),

Gene: Patbob\_28 Start: 13693, Stop: 14007, Start Num: 17

Candidate Starts for Patbob\_28:

(Start: 17 @13693 has 6 MA's), (23, 13774), (36, 13903), (40, 13924), (48, 13972),

Gene: Patbob\_318 Start: 189152, Stop: 189466, Start Num: 17

Candidate Starts for Patbob\_318:

(Start: 17 @189152 has 6 MA's), (23, 189233), (36, 189362), (40, 189383), (48, 189431),

Gene: Patelgo\_267 Start: 127948, Stop: 128289, Start Num: 11

Candidate Starts for Patelgo\_267:

(Start: 11 @127948 has 11 MA's), (Start: 14 @127969 has 2 MA's), (16, 127996), (19, 128014), (22, 128065), (25, 128095), (26, 128104), (29, 128158), (31, 128173), (33, 128194), (44, 128254), (49, 128272),

Gene: Phrampa\_311 Start: 187978, Stop: 188286, Start Num: 17

Candidate Starts for Phrampa\_311:

(Start: 17 @187978 has 6 MA's), (23, 188059), (36, 188188), (40, 188209), (45, 188242),

Gene: Phrampa\_26 Start: 11607, Stop: 11915, Start Num: 17

Candidate Starts for Phrampa\_26:

(Start: 17 @11607 has 6 MA's), (23, 11688), (36, 11817), (40, 11838), (45, 11871),

Gene: Quantum\_327 Start: 178753, Stop: 178406, Start Num: 12

Candidate Starts for Quantum\_327:

(Start: 12 @178753 has 7 MA's), (20, 178699), (21, 178657), (27, 178579), (29, 178561), (39, 178492), (43, 178465),

Gene: Racecar\_320 Start: 187830, Stop: 188144, Start Num: 17

Candidate Starts for Racecar\_320:

(Start: 17 @187830 has 6 MA's), (23, 187911),

Gene: Racecar\_31 Start: 14121, Stop: 14435, Start Num: 17

Candidate Starts for Racecar\_31:

(Start: 17 @14121 has 6 MA's), (23, 14202),

Gene: Satis\_329 Start: 179094, Stop: 178747, Start Num: 12

Candidate Starts for Satis\_329:

(Start: 12 @179094 has 7 MA's), (20, 179040), (21, 178998), (27, 178920), (29, 178902), (39, 178833), (43, 178806),

Gene: SparkleGoddess\_264 Start: 127503, Stop: 127844, Start Num: 11

Candidate Starts for SparkleGoddess\_264:

(Start: 11 @127503 has 11 MA's), (Start: 14 @127524 has 2 MA's), (25, 127650), (26, 127659), (31, 127728), (33, 127749), (44, 127809),

Gene: Stigma\_262 Start: 127216, Stop: 127557, Start Num: 11

Candidate Starts for Stigma\_262:

(Start: 11 @127216 has 11 MA's), (Start: 14 @127237 has 2 MA's), (25, 127363), (26, 127372), (33, 127462), (44, 127522),

Gene: Talia1610\_316 Start: 188015, Stop: 188329, Start Num: 17

Candidate Starts for Talia1610\_316:

(Start: 17 @188015 has 6 MA's), (23, 188096),

Gene: Talia1610\_30 Start: 13543, Stop: 13857, Start Num: 17

Candidate Starts for Talia1610\_30:

(Start: 17 @13543 has 6 MA's), (23, 13624),

Gene: Wakanda\_2 Start: 866, Stop: 1201, Start Num: 10

Candidate Starts for Wakanda\_2:

(Start: 10 @866 has 2 MA's), (15, 899), (16, 929), (18, 944), (38, 1121), (41, 1142), (51, 1190),

Gene: Wakanda\_261 Start: 125707, Stop: 126042, Start Num: 10

Candidate Starts for Wakanda\_261:

(Start: 10 @125707 has 2 MA's), (15, 125740), (16, 125770), (18, 125785), (38, 125962), (41, 125983), (51, 126031),

Gene: Westy\_268 Start: 128040, Stop: 128381, Start Num: 11

Candidate Starts for Westy\_268:

(Start: 11 @128040 has 11 MA's), (Start: 14 @128061 has 2 MA's), (25, 128187), (26, 128196), (31, 128265), (33, 128286), (34, 128295), (37, 128304), (44, 128346),