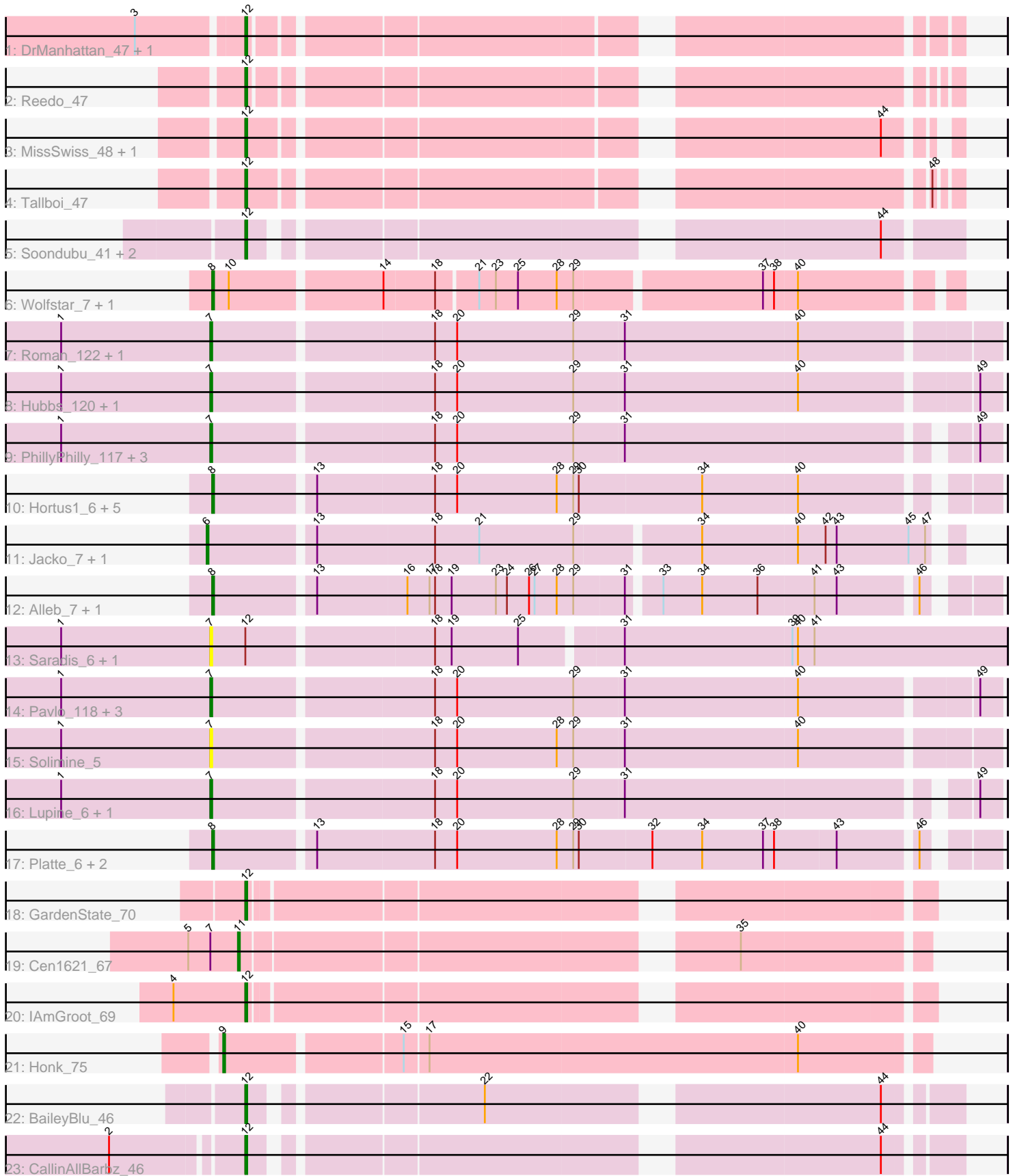


Pham 305097



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 305097 Report

This analysis was run 06/08/26 on database version 649.

WARNING: Pham size does not match number of genes in report. Either unphamerated genes have been added (by you) or starterator has removed genes due to invalid start codon.

Pham number 305097 has 47 members, 8 are drafts.

Phages represented in each track:

- Track 1 : DrManhattan\_47, Adolin\_48
- Track 2 : Reedo\_47
- Track 3 : MissSwiss\_48, PandaPo\_48
- Track 4 : Tallboi\_47
- Track 5 : Soondubu\_41, Jankie\_45, GrimEater\_43
- Track 6 : Wolfstar\_7, Wolfstar\_123
- Track 7 : Roman\_122, Roman\_6
- Track 8 : Hubbs\_120, Hubbs\_6
- Track 9 : PhillyPhilly\_117, DejaVu\_6, PhillyPhilly\_7, DejaVu\_122
- Track 10 : Hortus1\_6, OlinDD\_117, Hortus1\_117, Pioneer3\_6, Pioneer3\_117, OlinDD\_6
- Track 11 : Jacko\_7, Jacko\_116
- Track 12 : Alleb\_7, Alleb\_115
- Track 13 : Saradis\_6, Saradis\_124
- Track 14 : Pavlo\_118, Uterion\_6, Pavlo\_6, Uterion\_125
- Track 15 : Solimine\_5
- Track 16 : Lupine\_6, Lupine\_116
- Track 17 : Platte\_6, Tandem\_6, Tandem\_117
- Track 18 : GardenState\_70
- Track 19 : Cen1621\_67
- Track 20 : IAmGroot\_69
- Track 21 : Honk\_75
- Track 22 : BaileyBlu\_46
- Track 23 : CallinAllBarbz\_46

### ***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 13 of the 39 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Alleb\_115, Alleb\_7, Hortus1\_117, Hortus1\_6, OlinDD\_117, OlinDD\_6, Pioneer3\_117, Pioneer3\_6, Platte\_6, Tandem\_117, Tandem\_6, Wolfstar\_123, Wolfstar\_7,

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

- 

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

- Adolin\_48, BaileyBlu\_46, CallinAllBarbz\_46, Cen1621\_67, DejaVu\_122, DejaVu\_6, DrManhattan\_47, GardenState\_70, GrimEater\_43, Honk\_75, Hubbs\_120, Hubbs\_6, IAmGroot\_69, Jacko\_116, Jacko\_7, Jankie\_45, Lupine\_116, Lupine\_6, MissSwiss\_48, PandaPo\_48, Pavlo\_118, Pavlo\_6, PhillyPhilly\_117, PhillyPhilly\_7, Reedo\_47, Roman\_122, Roman\_6, Saradis\_124, Saradis\_6, Solimine\_5, Soondubu\_41, Tallboi\_47, Uterion\_125, Uterion\_6,

### Summary by start number:

Start 6:

- Found in 2 of 47 ( 4.3% ) of genes in pham
- Manual Annotations of this start: 2 of 39
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Jacko\_116 (ED1), Jacko\_7 (ED1),

Start 7:

- Found in 18 of 47 ( 38.3% ) of genes in pham
- Manual Annotations of this start: 12 of 39
- Called 94.4% of time when present
- Phage (with cluster) where this start called: DejaVu\_122 (ED1), DejaVu\_6 (ED1), Hubbs\_120 (ED1), Hubbs\_6 (ED1), Lupine\_116 (ED1), Lupine\_6 (ED1), Pavlo\_118 (ED1), Pavlo\_6 (ED1), PhillyPhilly\_117 (ED1), PhillyPhilly\_7 (ED1), Roman\_122 (ED1), Roman\_6 (ED1), Saradis\_124 (ED1), Saradis\_6 (ED1), Solimine\_5 (ED1), Uterion\_125 (ED1), Uterion\_6 (ED1),

Start 8:

- Found in 13 of 47 ( 27.7% ) of genes in pham
- Manual Annotations of this start: 13 of 39
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Alleb\_115 (ED1), Alleb\_7 (ED1), Hortus1\_117 (ED1), Hortus1\_6 (ED1), OlinDD\_117 (ED1), OlinDD\_6 (ED1), Pioneer3\_117 (ED1), Pioneer3\_6 (ED1), Platte\_6 (ED1), Tandem\_117 (ED1), Tandem\_6 (ED1), Wolfstar\_123 (ED), Wolfstar\_7 (ED),

Start 9:

- Found in 1 of 47 ( 2.1% ) of genes in pham
- Manual Annotations of this start: 1 of 39
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Honk\_75 (EH),

Start 11:

- Found in 1 of 47 ( 2.1% ) of genes in pham
- Manual Annotations of this start: 1 of 39
- Called 100.0% of time when present

- Phage (with cluster) where this start called: Cen1621\_67 (EH),

Start 12:

- Found in 15 of 47 ( 31.9% ) of genes in pham
- Manual Annotations of this start: 10 of 39
- Called 86.7% of time when present
- Phage (with cluster) where this start called: Adolin\_48 (AZ1), BaileyBlu\_46 (FP), CallinAllBarbz\_46 (FP), DrManhattan\_47 (AZ1), GardenState\_70 (EH), GrimEater\_43 (FP), IAmGroot\_69 (EH), Jankie\_45 (FP), MissSwiss\_48 (AZ1), PandaPo\_48 (AZ1), Reedo\_47 (AZ1), Soondubu\_41 (AZ6), Tallboi\_47 (AZ1),

### **Summary by clusters:**

There are 6 clusters represented in this pham: FP, EH, ED, ED1, AZ1, AZ6,

Info for manual annotations of cluster AZ1:

- Start number 12 was manually annotated 5 times for cluster AZ1.

Info for manual annotations of cluster AZ6:

- Start number 12 was manually annotated 1 time for cluster AZ6.

Info for manual annotations of cluster ED:

- Start number 8 was manually annotated 2 times for cluster ED.

Info for manual annotations of cluster ED1:

- Start number 6 was manually annotated 2 times for cluster ED1.
- Start number 7 was manually annotated 12 times for cluster ED1.
- Start number 8 was manually annotated 11 times for cluster ED1.

Info for manual annotations of cluster EH:

- Start number 9 was manually annotated 1 time for cluster EH.
- Start number 11 was manually annotated 1 time for cluster EH.
- Start number 12 was manually annotated 2 times for cluster EH.

Info for manual annotations of cluster FP:

- Start number 12 was manually annotated 2 times for cluster FP.

### **Gene Information:**

Gene: Adolin\_48 Start: 33121, Stop: 33456, Start Num: 12

Candidate Starts for Adolin\_48:

(3, 33067), (Start: 12 @33121 has 10 MA's),

Gene: Alleb\_7 Start: 2777, Stop: 2382, Start Num: 8

Candidate Starts for Alleb\_7:

(Start: 8 @2777 has 13 MA's), (13, 2726), (16, 2678), (17, 2666), (18, 2663), (19, 2654), (23, 2630), (24, 2624), (26, 2612), (27, 2609), (28, 2597), (29, 2588), (31, 2561), (33, 2546), (34, 2525), (36, 2495), (41, 2465), (43, 2453), (46, 2414),

Gene: Alleb\_115 Start: 62256, Stop: 61861, Start Num: 8

Candidate Starts for Alleb\_115:

(Start: 8 @62256 has 13 MA's), (13, 62205), (16, 62157), (17, 62145), (18, 62142), (19, 62133), (23, 62109), (24, 62103), (26, 62091), (27, 62088), (28, 62076), (29, 62067), (31, 62040), (33, 62025), (34, 62004), (36, 61974), (41, 61944), (43, 61932), (46, 61893),

Gene: BaileyBlu\_46 Start: 33124, Stop: 33462, Start Num: 12

Candidate Starts for BaileyBlu\_46:

(Start: 12 @33124 has 10 MA's), (22, 33235), (44, 33427),

Gene: CallinAllBarbz\_46 Start: 33305, Stop: 33643, Start Num: 12

Candidate Starts for CallinAllBarbz\_46:

(2, 33239), (Start: 12 @33305 has 10 MA's), (44, 33608),

Gene: Cen1621\_67 Start: 45156, Stop: 45494, Start Num: 11

Candidate Starts for Cen1621\_67:

(5, 45129), (Start: 7 @45141 has 12 MA's), (Start: 11 @45156 has 1 MA's), (35, 45399),

Gene: DejaVu\_6 Start: 2530, Stop: 2129, Start Num: 7

Candidate Starts for DejaVu\_6:

(1, 2611), (Start: 7 @2530 has 12 MA's), (18, 2416), (20, 2404), (29, 2341), (31, 2314), (49, 2140),

Gene: DejaVu\_122 Start: 62910, Stop: 62509, Start Num: 7

Candidate Starts for DejaVu\_122:

(1, 62991), (Start: 7 @62910 has 12 MA's), (18, 62796), (20, 62784), (29, 62721), (31, 62694), (49, 62520),

Gene: DrManhattan\_47 Start: 32688, Stop: 33023, Start Num: 12

Candidate Starts for DrManhattan\_47:

(3, 32634), (Start: 12 @32688 has 10 MA's),

Gene: GardenState\_70 Start: 42790, Stop: 43125, Start Num: 12

Candidate Starts for GardenState\_70:

(Start: 12 @42790 has 10 MA's),

Gene: GrimEater\_43 Start: 31771, Stop: 32124, Start Num: 12

Candidate Starts for GrimEater\_43:

(Start: 12 @31771 has 10 MA's), (44, 32089),

Gene: Honk\_75 Start: 46974, Stop: 47339, Start Num: 9

Candidate Starts for Honk\_75:

(Start: 9 @46974 has 1 MA's), (15, 47064), (17, 47076), (40, 47274),

Gene: Hortus1\_6 Start: 2730, Stop: 2329, Start Num: 8

Candidate Starts for Hortus1\_6:

(Start: 8 @2730 has 13 MA's), (13, 2679), (18, 2616), (20, 2604), (28, 2550), (29, 2541), (30, 2538), (34, 2472), (40, 2421),

Gene: Hortus1\_117 Start: 62690, Stop: 62289, Start Num: 8

Candidate Starts for Hortus1\_117:

(Start: 8 @62690 has 13 MA's), (13, 62639), (18, 62576), (20, 62564), (28, 62510), (29, 62501), (30, 62498), (34, 62432), (40, 62381),

Gene: Hubbs\_120 Start: 63433, Stop: 63023, Start Num: 7

Candidate Starts for Hubbs\_120:

(1, 63514), (Start: 7 @63433 has 12 MA's), (18, 63319), (20, 63307), (29, 63244), (31, 63217), (40, 63124), (49, 63034),

Gene: Hubbs\_6 Start: 3034, Stop: 2624, Start Num: 7

Candidate Starts for Hubbs\_6:

(1, 3115), (Start: 7 @3034 has 12 MA's), (18, 2920), (20, 2908), (29, 2845), (31, 2818), (40, 2725), (49, 2635),

Gene: IAmGroot\_69 Start: 43001, Stop: 43336, Start Num: 12

Candidate Starts for IAmGroot\_69:

(4, 42962), (Start: 12 @43001 has 10 MA's),

Gene: Jacko\_7 Start: 2600, Stop: 2214, Start Num: 6

Candidate Starts for Jacko\_7:

(Start: 6 @2600 has 2 MA's), (13, 2546), (18, 2483), (21, 2459), (29, 2408), (34, 2345), (40, 2294), (42, 2279), (43, 2273), (45, 2234), (47, 2225),

Gene: Jacko\_116 Start: 60993, Stop: 60607, Start Num: 6

Candidate Starts for Jacko\_116:

(Start: 6 @60993 has 2 MA's), (13, 60939), (18, 60876), (21, 60852), (29, 60801), (34, 60738), (40, 60687), (42, 60672), (43, 60666), (45, 60627), (47, 60618),

Gene: Jankie\_45 Start: 31949, Stop: 32302, Start Num: 12

Candidate Starts for Jankie\_45:

(Start: 12 @31949 has 10 MA's), (44, 32267),

Gene: Lupine\_6 Start: 2831, Stop: 2430, Start Num: 7

Candidate Starts for Lupine\_6:

(1, 2912), (Start: 7 @2831 has 12 MA's), (18, 2717), (20, 2705), (29, 2642), (31, 2615), (49, 2441),

Gene: Lupine\_116 Start: 62104, Stop: 61703, Start Num: 7

Candidate Starts for Lupine\_116:

(1, 62185), (Start: 7 @62104 has 12 MA's), (18, 61990), (20, 61978), (29, 61915), (31, 61888), (49, 61714),

Gene: MissSwiss\_48 Start: 33199, Stop: 33531, Start Num: 12

Candidate Starts for MissSwiss\_48:

(Start: 12 @33199 has 10 MA's), (44, 33505),

Gene: OlinDD\_117 Start: 62695, Stop: 62294, Start Num: 8

Candidate Starts for OlinDD\_117:

(Start: 8 @62695 has 13 MA's), (13, 62644), (18, 62581), (20, 62569), (28, 62515), (29, 62506), (30, 62503), (34, 62437), (40, 62386),

Gene: OlinDD\_6 Start: 2730, Stop: 2329, Start Num: 8

Candidate Starts for OlinDD\_6:

(Start: 8 @2730 has 13 MA's), (13, 2679), (18, 2616), (20, 2604), (28, 2550), (29, 2541), (30, 2538), (34, 2472), (40, 2421),

Gene: PandaPo\_48 Start: 33207, Stop: 33539, Start Num: 12

Candidate Starts for PandaPo\_48:

(Start: 12 @33207 has 10 MA's), (44, 33513),

Gene: Pavlo\_118 Start: 63181, Stop: 62771, Start Num: 7

Candidate Starts for Pavlo\_118:

(1, 63262), (Start: 7 @63181 has 12 MA's), (18, 63067), (20, 63055), (29, 62992), (31, 62965), (40, 62872), (49, 62782),

Gene: Pavlo\_6 Start: 2925, Stop: 2515, Start Num: 7

Candidate Starts for Pavlo\_6:

(1, 3006), (Start: 7 @2925 has 12 MA's), (18, 2811), (20, 2799), (29, 2736), (31, 2709), (40, 2616), (49, 2526),

Gene: PhillyPhilly\_117 Start: 62440, Stop: 62039, Start Num: 7

Candidate Starts for PhillyPhilly\_117:

(1, 62521), (Start: 7 @62440 has 12 MA's), (18, 62326), (20, 62314), (29, 62251), (31, 62224), (49, 62050),

Gene: PhillyPhilly\_7 Start: 2951, Stop: 2550, Start Num: 7

Candidate Starts for PhillyPhilly\_7:

(1, 3032), (Start: 7 @2951 has 12 MA's), (18, 2837), (20, 2825), (29, 2762), (31, 2735), (49, 2561),

Gene: Pioneer3\_6 Start: 2763, Stop: 2362, Start Num: 8

Candidate Starts for Pioneer3\_6:

(Start: 8 @2763 has 13 MA's), (13, 2712), (18, 2649), (20, 2637), (28, 2583), (29, 2574), (30, 2571), (34, 2505), (40, 2454),

Gene: Pioneer3\_117 Start: 62526, Stop: 62125, Start Num: 8

Candidate Starts for Pioneer3\_117:

(Start: 8 @62526 has 13 MA's), (13, 62475), (18, 62412), (20, 62400), (28, 62346), (29, 62337), (30, 62334), (34, 62268), (40, 62217),

Gene: Platte\_6 Start: 2752, Stop: 2351, Start Num: 8

Candidate Starts for Platte\_6:

(Start: 8 @2752 has 13 MA's), (13, 2701), (18, 2638), (20, 2626), (28, 2572), (29, 2563), (30, 2560), (32, 2521), (34, 2494), (37, 2461), (38, 2455), (43, 2422), (46, 2383),

Gene: Reedo\_47 Start: 32807, Stop: 33139, Start Num: 12

Candidate Starts for Reedo\_47:

(Start: 12 @32807 has 10 MA's),

Gene: Roman\_122 Start: 63830, Stop: 63420, Start Num: 7

Candidate Starts for Roman\_122:

(1, 63911), (Start: 7 @63830 has 12 MA's), (18, 63716), (20, 63704), (29, 63641), (31, 63614), (40, 63521),

Gene: Roman\_6 Start: 2743, Stop: 2333, Start Num: 7

Candidate Starts for Roman\_6:

(1, 2824), (Start: 7 @2743 has 12 MA's), (18, 2629), (20, 2617), (29, 2554), (31, 2527), (40, 2434),

Gene: Saradis\_6 Start: 2798, Stop: 2382, Start Num: 7

Candidate Starts for Saradis\_6:

(1, 2879), (Start: 7 @2798 has 12 MA's), (Start: 12 @2780 has 10 MA's), (18, 2684), (19, 2675), (25, 2639), (31, 2588), (39, 2498), (40, 2495), (41, 2486),

Gene: Saradis\_124 Start: 63175, Stop: 62759, Start Num: 7

Candidate Starts for Saradis\_124:

(1, 63256), (Start: 7 @63175 has 12 MA's), (Start: 12 @63157 has 10 MA's), (18, 63061), (19, 63052), (25, 63016), (31, 62965), (39, 62875), (40, 62872), (41, 62863),

Gene: Solimine\_5 Start: 2539, Stop: 2129, Start Num: 7

Candidate Starts for Solimine\_5:

(1, 2620), (Start: 7 @2539 has 12 MA's), (18, 2425), (20, 2413), (28, 2359), (29, 2350), (31, 2323), (40, 2230),

Gene: Soondubu\_41 Start: 34415, Stop: 34756, Start Num: 12

Candidate Starts for Soondubu\_41:

(Start: 12 @34415 has 10 MA's), (44, 34718),

Gene: Tallboi\_47 Start: 35393, Stop: 35728, Start Num: 12

Candidate Starts for Tallboi\_47:

(Start: 12 @35393 has 10 MA's), (48, 35717),

Gene: Tandem\_6 Start: 2857, Stop: 2456, Start Num: 8

Candidate Starts for Tandem\_6:

(Start: 8 @2857 has 13 MA's), (13, 2806), (18, 2743), (20, 2731), (28, 2677), (29, 2668), (30, 2665), (32, 2626), (34, 2599), (37, 2566), (38, 2560), (43, 2527), (46, 2488),

Gene: Tandem\_117 Start: 62700, Stop: 62299, Start Num: 8

Candidate Starts for Tandem\_117:

(Start: 8 @62700 has 13 MA's), (13, 62649), (18, 62586), (20, 62574), (28, 62520), (29, 62511), (30, 62508), (32, 62469), (34, 62442), (37, 62409), (38, 62403), (43, 62370), (46, 62331),

Gene: Uterion\_6 Start: 3063, Stop: 2653, Start Num: 7

Candidate Starts for Uterion\_6:

(1, 3144), (Start: 7 @3063 has 12 MA's), (18, 2949), (20, 2937), (29, 2874), (31, 2847), (40, 2754), (49, 2664),

Gene: Uterion\_125 Start: 63154, Stop: 62744, Start Num: 7

Candidate Starts for Uterion\_125:

(1, 63235), (Start: 7 @63154 has 12 MA's), (18, 63040), (20, 63028), (29, 62965), (31, 62938), (40, 62845), (49, 62755),

Gene: Wolfstar\_7 Start: 3322, Stop: 2945, Start Num: 8

Candidate Starts for Wolfstar\_7:

(Start: 8 @3322 has 13 MA's), (10, 3313), (14, 3235), (18, 3208), (21, 3187), (23, 3178), (25, 3166), (28, 3145), (29, 3136), (37, 3040), (38, 3034), (40, 3022),

Gene: Wolfstar\_123 Start: 64463, Stop: 64086, Start Num: 8

Candidate Starts for Wolfstar\_123:

(Start: 8 @64463 has 13 MA's), (10, 64454), (14, 64376), (18, 64349), (21, 64328), (23, 64319), (25, 64307), (28, 64286), (29, 64277), (37, 64181), (38, 64175), (40, 64163),