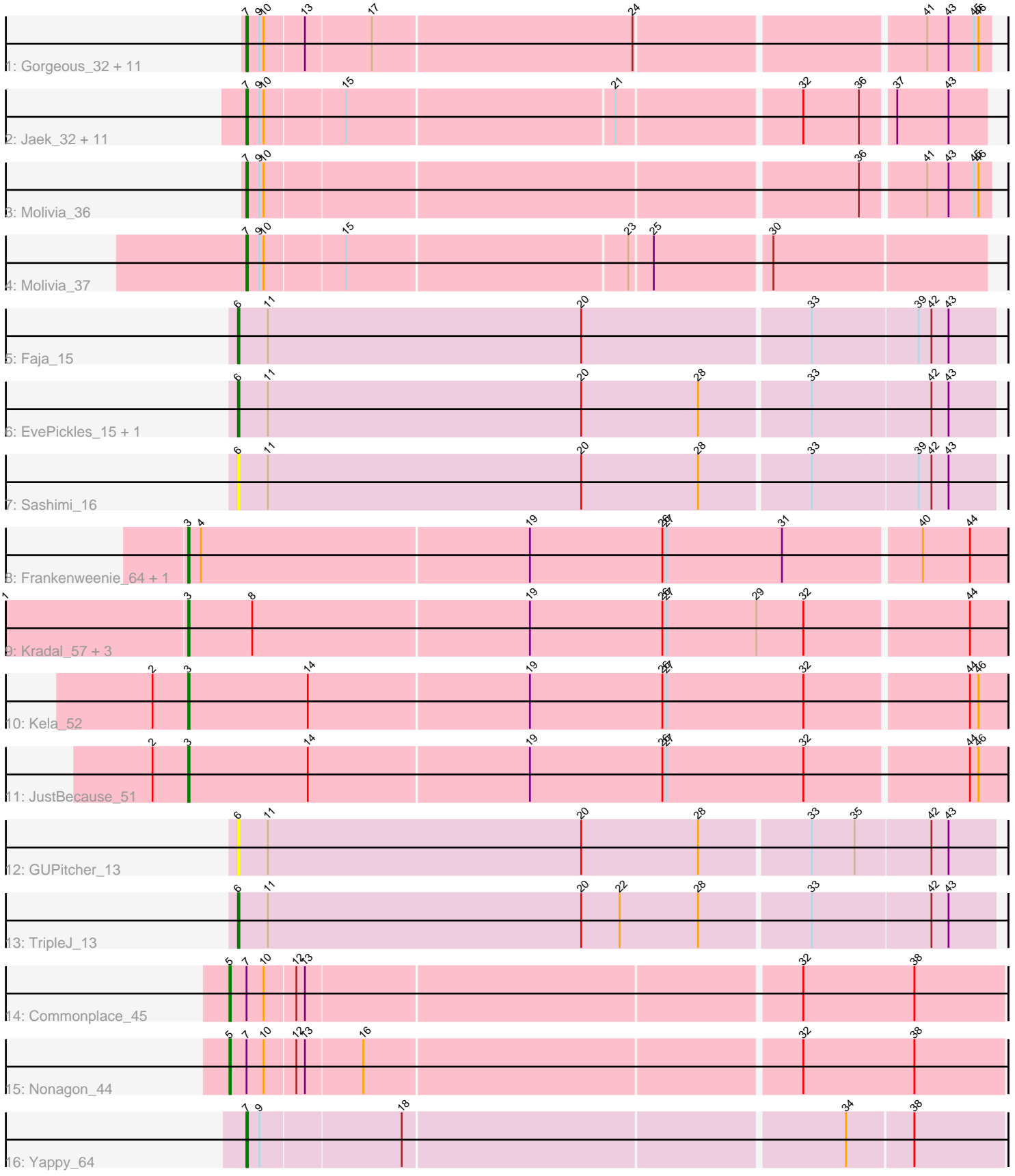


Pham 203080



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 203080 Report

This analysis was run 01/18/25 on database version 583.

Pham number 203080 has 43 members, 3 are drafts.

Phages represented in each track:

- Track 1 : Gorgeous\_32, Boersma\_33, Thunderclap\_32, Ichor\_31, Amavida\_35, Anansi\_32, Heylee\_35, Yeezus\_31, Jaek\_31, Amigo\_32, Rings\_31, SorJuana\_32
- Track 2 : Jaek\_32, Gorgeous\_33, Thunderclap\_33, Anansi\_33, Amavida\_36, Ichor\_32, SorJuana\_33, Heylee\_36, Yeezus\_32, Amigo\_33, Boersma\_34, Rings\_32
- Track 3 : Molivia\_36
- Track 4 : Molivia\_37
- Track 5 : Faja\_15
- Track 6 : EvePickles\_15, Kukla\_13
- Track 7 : Sashimi\_16
- Track 8 : Frankenweenie\_64, Nirvana\_62
- Track 9 : Kradal\_57, Quantum\_56, EhyElimayoE\_57, Satis\_57
- Track 10 : Kela\_52
- Track 11 : JustBecause\_51
- Track 12 : GUPitcher\_13
- Track 13 : TripleJ\_13
- Track 14 : Commonplace\_45
- Track 15 : Nonagon\_44
- Track 16 : Yappy\_64

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

The start number called the most often in the published annotations is 7, it was called in 27 of the 40 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Amavida\_35, Amavida\_36, Amigo\_32, Amigo\_33, Anansi\_32, Anansi\_33, Boersma\_33, Boersma\_34, Gorgeous\_32, Gorgeous\_33, Heylee\_35, Heylee\_36, Ichor\_31, Ichor\_32, Jaek\_31, Jaek\_32, Molivia\_36, Molivia\_37, Rings\_31, Rings\_32, SorJuana\_32, SorJuana\_33, Thunderclap\_32, Thunderclap\_33, Yappy\_64, Yeezus\_31, Yeezus\_32,

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

- Commonplace\_45, Nonagon\_44,

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

- EhyElimayoE\_57, EvePickles\_15, Faja\_15, Frankenweenie\_64, GUPitcher\_13, JustBecause\_51, Kela\_52, Kradal\_57, Kukla\_13, Nirvana\_62, Quantum\_56, Sashimi\_16, Satis\_57, TripleJ\_13,

### Summary by start number:

Start 3:

- Found in 8 of 43 ( 18.6% ) of genes in pham
- Manual Annotations of this start: 7 of 40
- Called 100.0% of time when present
- Phage (with cluster) where this start called: EhyElimayoE\_57 (BM), Frankenweenie\_64 (BM), JustBecause\_51 (BM), Kela\_52 (BM), Kradal\_57 (BM), Nirvana\_62 (BM), Quantum\_56 (BM), Satis\_57 (BM),

Start 5:

- Found in 2 of 43 ( 4.7% ) of genes in pham
- Manual Annotations of this start: 2 of 40
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Commonplace\_45 (JD), Nonagon\_44 (JD),

Start 6:

- Found in 6 of 43 ( 14.0% ) of genes in pham
- Manual Annotations of this start: 4 of 40
- Called 100.0% of time when present
- Phage (with cluster) where this start called: EvePickles\_15 (AY), Faja\_15 (AY), GUPitcher\_13 (FJ), Kukla\_13 (FJ), Sashimi\_16 (AY), TripleJ\_13 (FJ),

Start 7:

- Found in 29 of 43 ( 67.4% ) of genes in pham
- Manual Annotations of this start: 27 of 40
- Called 93.1% of time when present
- Phage (with cluster) where this start called: Amavida\_35 (AQ), Amavida\_36 (AQ), Amigo\_32 (AQ), Amigo\_33 (AQ), Anansi\_32 (AQ), Anansi\_33 (AQ), Boersma\_33 (AQ), Boersma\_34 (AQ), Gorgeous\_32 (AQ), Gorgeous\_33 (AQ), Heylee\_35 (AQ), Heylee\_36 (AQ), Ichor\_31 (AQ), Ichor\_32 (AQ), Jaek\_31 (AQ), Jaek\_32 (AQ), Molivia\_36 (AQ), Molivia\_37 (AQ), Rings\_31 (AQ), Rings\_32 (AQ), SorJuana\_32 (AQ), SorJuana\_33 (AQ), Thunderclap\_32 (AQ), Thunderclap\_33 (AQ), Yappy\_64 (singleton), Yeezus\_31 (AQ), Yeezus\_32 (AQ),

### Summary by clusters:

There are 6 clusters represented in this pham: singleton, BM, AQ, JD, AY, FJ,

Info for manual annotations of cluster AQ:

- Start number 7 was manually annotated 26 times for cluster AQ.

Info for manual annotations of cluster AY:

- Start number 6 was manually annotated 2 times for cluster AY.

Info for manual annotations of cluster BM:

- Start number 3 was manually annotated 7 times for cluster BM.

Info for manual annotations of cluster FJ:

- Start number 6 was manually annotated 2 times for cluster FJ.

Info for manual annotations of cluster JD:

- Start number 5 was manually annotated 2 times for cluster JD.

### **Gene Information:**

Gene: Amavida\_35 Start: 16804, Stop: 17304, Start Num: 7

Candidate Starts for Amavida\_35:

(Start: 7 @16804 has 27 MA's), (9, 16813), (10, 16816), (13, 16843), (17, 16888), (24, 17068), (41, 17260), (43, 17275), (45, 17293), (46, 17296),

Gene: Amavida\_36 Start: 17306, Stop: 17800, Start Num: 7

Candidate Starts for Amavida\_36:

(Start: 7 @17306 has 27 MA's), (9, 17315), (10, 17318), (15, 17372), (21, 17555), (32, 17678), (36, 17717), (37, 17738), (43, 17774),

Gene: Amigo\_33 Start: 17180, Stop: 17674, Start Num: 7

Candidate Starts for Amigo\_33:

(Start: 7 @17180 has 27 MA's), (9, 17189), (10, 17192), (15, 17246), (21, 17429), (32, 17552), (36, 17591), (37, 17612), (43, 17648),

Gene: Amigo\_32 Start: 16678, Stop: 17178, Start Num: 7

Candidate Starts for Amigo\_32:

(Start: 7 @16678 has 27 MA's), (9, 16687), (10, 16690), (13, 16717), (17, 16762), (24, 16942), (41, 17134), (43, 17149), (45, 17167), (46, 17170),

Gene: Anansi\_33 Start: 17189, Stop: 17683, Start Num: 7

Candidate Starts for Anansi\_33:

(Start: 7 @17189 has 27 MA's), (9, 17198), (10, 17201), (15, 17255), (21, 17438), (32, 17561), (36, 17600), (37, 17621), (43, 17657),

Gene: Anansi\_32 Start: 16687, Stop: 17187, Start Num: 7

Candidate Starts for Anansi\_32:

(Start: 7 @16687 has 27 MA's), (9, 16696), (10, 16699), (13, 16726), (17, 16771), (24, 16951), (41, 17143), (43, 17158), (45, 17176), (46, 17179),

Gene: Boersma\_33 Start: 16678, Stop: 17178, Start Num: 7

Candidate Starts for Boersma\_33:

(Start: 7 @16678 has 27 MA's), (9, 16687), (10, 16690), (13, 16717), (17, 16762), (24, 16942), (41, 17134), (43, 17149), (45, 17167), (46, 17170),

Gene: Boersma\_34 Start: 17180, Stop: 17674, Start Num: 7

Candidate Starts for Boersma\_34:

(Start: 7 @17180 has 27 MA's), (9, 17189), (10, 17192), (15, 17246), (21, 17429), (32, 17552), (36, 17591), (37, 17612), (43, 17648),

Gene: Commonplace\_45 Start: 24824, Stop: 25351, Start Num: 5

Candidate Starts for Commonplace\_45:

(Start: 5 @24824 has 2 MA's), (Start: 7 @24836 has 27 MA's), (10, 24848), (12, 24869), (13, 24875), (32, 25211), (38, 25289),

Gene: EhyElimayoE\_57 Start: 31705, Stop: 32271, Start Num: 3

Candidate Starts for EhyElimayoE\_57:

(1, 31579), (Start: 3 @31705 has 7 MA's), (8, 31750), (19, 31942), (26, 32035), (27, 32038), (29, 32101), (32, 32134), (44, 32245),

Gene: EvePickles\_15 Start: 9172, Stop: 9693, Start Num: 6

Candidate Starts for EvePickles\_15:

(Start: 6 @9172 has 4 MA's), (11, 9193), (20, 9412), (28, 9493), (33, 9568), (42, 9649), (43, 9661),

Gene: Faja\_15 Start: 9116, Stop: 9637, Start Num: 6

Candidate Starts for Faja\_15:

(Start: 6 @9116 has 4 MA's), (11, 9137), (20, 9356), (33, 9512), (39, 9584), (42, 9593), (43, 9605),

Gene: Frankenweenie\_64 Start: 34296, Stop: 34862, Start Num: 3

Candidate Starts for Frankenweenie\_64:

(Start: 3 @34296 has 7 MA's), (4, 34305), (19, 34533), (26, 34626), (27, 34629), (31, 34710), (40, 34803), (44, 34836),

Gene: GUPitcher\_13 Start: 8607, Stop: 9128, Start Num: 6

Candidate Starts for GUPitcher\_13:

(Start: 6 @8607 has 4 MA's), (11, 8628), (20, 8847), (28, 8928), (33, 9003), (35, 9033), (42, 9084), (43, 9096),

Gene: Gorgeous\_32 Start: 16687, Stop: 17187, Start Num: 7

Candidate Starts for Gorgeous\_32:

(Start: 7 @16687 has 27 MA's), (9, 16696), (10, 16699), (13, 16726), (17, 16771), (24, 16951), (41, 17143), (43, 17158), (45, 17176), (46, 17179),

Gene: Gorgeous\_33 Start: 17189, Stop: 17683, Start Num: 7

Candidate Starts for Gorgeous\_33:

(Start: 7 @17189 has 27 MA's), (9, 17198), (10, 17201), (15, 17255), (21, 17438), (32, 17561), (36, 17600), (37, 17621), (43, 17657),

Gene: Heylee\_35 Start: 16804, Stop: 17304, Start Num: 7

Candidate Starts for Heylee\_35:

(Start: 7 @16804 has 27 MA's), (9, 16813), (10, 16816), (13, 16843), (17, 16888), (24, 17068), (41, 17260), (43, 17275), (45, 17293), (46, 17296),

Gene: Heylee\_36 Start: 17306, Stop: 17800, Start Num: 7

Candidate Starts for Heylee\_36:

(Start: 7 @17306 has 27 MA's), (9, 17315), (10, 17318), (15, 17372), (21, 17555), (32, 17678), (36, 17717), (37, 17738), (43, 17774),

Gene: Ichor\_31 Start: 16678, Stop: 17178, Start Num: 7

Candidate Starts for Ichor\_31:

(Start: 7 @16678 has 27 MA's), (9, 16687), (10, 16690), (13, 16717), (17, 16762), (24, 16942), (41, 17134), (43, 17149), (45, 17167), (46, 17170),

Gene: Ichor\_32 Start: 17180, Stop: 17674, Start Num: 7

Candidate Starts for Ichor\_32:

(Start: 7 @17180 has 27 MA's), (9, 17189), (10, 17192), (15, 17246), (21, 17429), (32, 17552), (36, 17591), (37, 17612), (43, 17648),

Gene: Jaek\_32 Start: 17180, Stop: 17674, Start Num: 7

Candidate Starts for Jaek\_32:

(Start: 7 @17180 has 27 MA's), (9, 17189), (10, 17192), (15, 17246), (21, 17429), (32, 17552), (36, 17591), (37, 17612), (43, 17648),

Gene: Jaek\_31 Start: 16678, Stop: 17178, Start Num: 7

Candidate Starts for Jaek\_31:

(Start: 7 @16678 has 27 MA's), (9, 16687), (10, 16690), (13, 16717), (17, 16762), (24, 16942), (41, 17134), (43, 17149), (45, 17167), (46, 17170),

Gene: JustBecause\_51 Start: 28928, Stop: 29494, Start Num: 3

Candidate Starts for JustBecause\_51:

(2, 28904), (Start: 3 @28928 has 7 MA's), (14, 29012), (19, 29165), (26, 29258), (27, 29261), (32, 29357), (44, 29468), (46, 29474),

Gene: Kela\_52 Start: 28793, Stop: 29359, Start Num: 3

Candidate Starts for Kela\_52:

(2, 28769), (Start: 3 @28793 has 7 MA's), (14, 28877), (19, 29030), (26, 29123), (27, 29126), (32, 29222), (44, 29333), (46, 29339),

Gene: Kradal\_57 Start: 31705, Stop: 32271, Start Num: 3

Candidate Starts for Kradal\_57:

(1, 31579), (Start: 3 @31705 has 7 MA's), (8, 31750), (19, 31942), (26, 32035), (27, 32038), (29, 32101), (32, 32134), (44, 32245),

Gene: Kukla\_13 Start: 8634, Stop: 9155, Start Num: 6

Candidate Starts for Kukla\_13:

(Start: 6 @8634 has 4 MA's), (11, 8655), (20, 8874), (28, 8955), (33, 9030), (42, 9111), (43, 9123),

Gene: Molivia\_36 Start: 16925, Stop: 17425, Start Num: 7

Candidate Starts for Molivia\_36:

(Start: 7 @16925 has 27 MA's), (9, 16934), (10, 16937), (36, 17339), (41, 17381), (43, 17396), (45, 17414), (46, 17417),

Gene: Molivia\_37 Start: 17428, Stop: 17925, Start Num: 7

Candidate Starts for Molivia\_37:

(Start: 7 @17428 has 27 MA's), (9, 17437), (10, 17440), (15, 17494), (23, 17686), (25, 17701), (30, 17779),

Gene: Nirvana\_62 Start: 33669, Stop: 34235, Start Num: 3

Candidate Starts for Nirvana\_62:

(Start: 3 @33669 has 7 MA's), (4, 33678), (19, 33906), (26, 33999), (27, 34002), (31, 34083), (40, 34176), (44, 34209),

Gene: Nonagon\_44 Start: 24524, Stop: 25051, Start Num: 5

Candidate Starts for Nonagon\_44:

(Start: 5 @24524 has 2 MA's), (Start: 7 @24536 has 27 MA's), (10, 24548), (12, 24569), (13, 24575), (16, 24614), (32, 24911), (38, 24989),

Gene: Quantum\_56 Start: 31705, Stop: 32271, Start Num: 3

Candidate Starts for Quantum\_56:

(1, 31579), (Start: 3 @31705 has 7 MA's), (8, 31750), (19, 31942), (26, 32035), (27, 32038), (29, 32101), (32, 32134), (44, 32245),

Gene: Rings\_32 Start: 17311, Stop: 17805, Start Num: 7

Candidate Starts for Rings\_32:

(Start: 7 @17311 has 27 MA's), (9, 17320), (10, 17323), (15, 17377), (21, 17560), (32, 17683), (36, 17722), (37, 17743), (43, 17779),

Gene: Rings\_31 Start: 16809, Stop: 17309, Start Num: 7

Candidate Starts for Rings\_31:

(Start: 7 @16809 has 27 MA's), (9, 16818), (10, 16821), (13, 16848), (17, 16893), (24, 17073), (41, 17265), (43, 17280), (45, 17298), (46, 17301),

Gene: Sashimi\_16 Start: 9234, Stop: 9755, Start Num: 6

Candidate Starts for Sashimi\_16:

(Start: 6 @9234 has 4 MA's), (11, 9255), (20, 9474), (28, 9555), (33, 9630), (39, 9702), (42, 9711), (43, 9723),

Gene: Satis\_57 Start: 31701, Stop: 32267, Start Num: 3

Candidate Starts for Satis\_57:

(1, 31575), (Start: 3 @31701 has 7 MA's), (8, 31746), (19, 31938), (26, 32031), (27, 32034), (29, 32097), (32, 32130), (44, 32241),

Gene: SorJuana\_33 Start: 17189, Stop: 17683, Start Num: 7

Candidate Starts for SorJuana\_33:

(Start: 7 @17189 has 27 MA's), (9, 17198), (10, 17201), (15, 17255), (21, 17438), (32, 17561), (36, 17600), (37, 17621), (43, 17657),

Gene: SorJuana\_32 Start: 16687, Stop: 17187, Start Num: 7

Candidate Starts for SorJuana\_32:

(Start: 7 @16687 has 27 MA's), (9, 16696), (10, 16699), (13, 16726), (17, 16771), (24, 16951), (41, 17143), (43, 17158), (45, 17176), (46, 17179),

Gene: Thunderclap\_32 Start: 16707, Stop: 17207, Start Num: 7

Candidate Starts for Thunderclap\_32:

(Start: 7 @16707 has 27 MA's), (9, 16716), (10, 16719), (13, 16746), (17, 16791), (24, 16971), (41, 17163), (43, 17178), (45, 17196), (46, 17199),

Gene: Thunderclap\_33 Start: 17209, Stop: 17703, Start Num: 7

Candidate Starts for Thunderclap\_33:

(Start: 7 @17209 has 27 MA's), (9, 17218), (10, 17221), (15, 17275), (21, 17458), (32, 17581), (36, 17620), (37, 17641), (43, 17677),

Gene: TripleJ\_13 Start: 8929, Stop: 9450, Start Num: 6

Candidate Starts for TripleJ\_13:

(Start: 6 @8929 has 4 MA's), (11, 8950), (20, 9169), (22, 9196), (28, 9250), (33, 9325), (42, 9406), (43, 9418),

Gene: Yappy\_64 Start: 22654, Stop: 23166, Start Num: 7

Candidate Starts for Yappy\_64:

(Start: 7 @22654 has 27 MA's), (9, 22663), (18, 22759), (34, 23059), (38, 23104),

Gene: Yeezus\_31 Start: 16677, Stop: 17177, Start Num: 7

Candidate Starts for Yeezus\_31:

(Start: 7 @16677 has 27 MA's), (9, 16686), (10, 16689), (13, 16716), (17, 16761), (24, 16941), (41, 17133), (43, 17148), (45, 17166), (46, 17169),

Gene: Yeezus\_32 Start: 17179, Stop: 17673, Start Num: 7

Candidate Starts for Yeezus\_32:

(Start: 7 @17179 has 27 MA's), (9, 17188), (10, 17191), (15, 17245), (21, 17428), (32, 17551), (36, 17590), (37, 17611), (43, 17647),