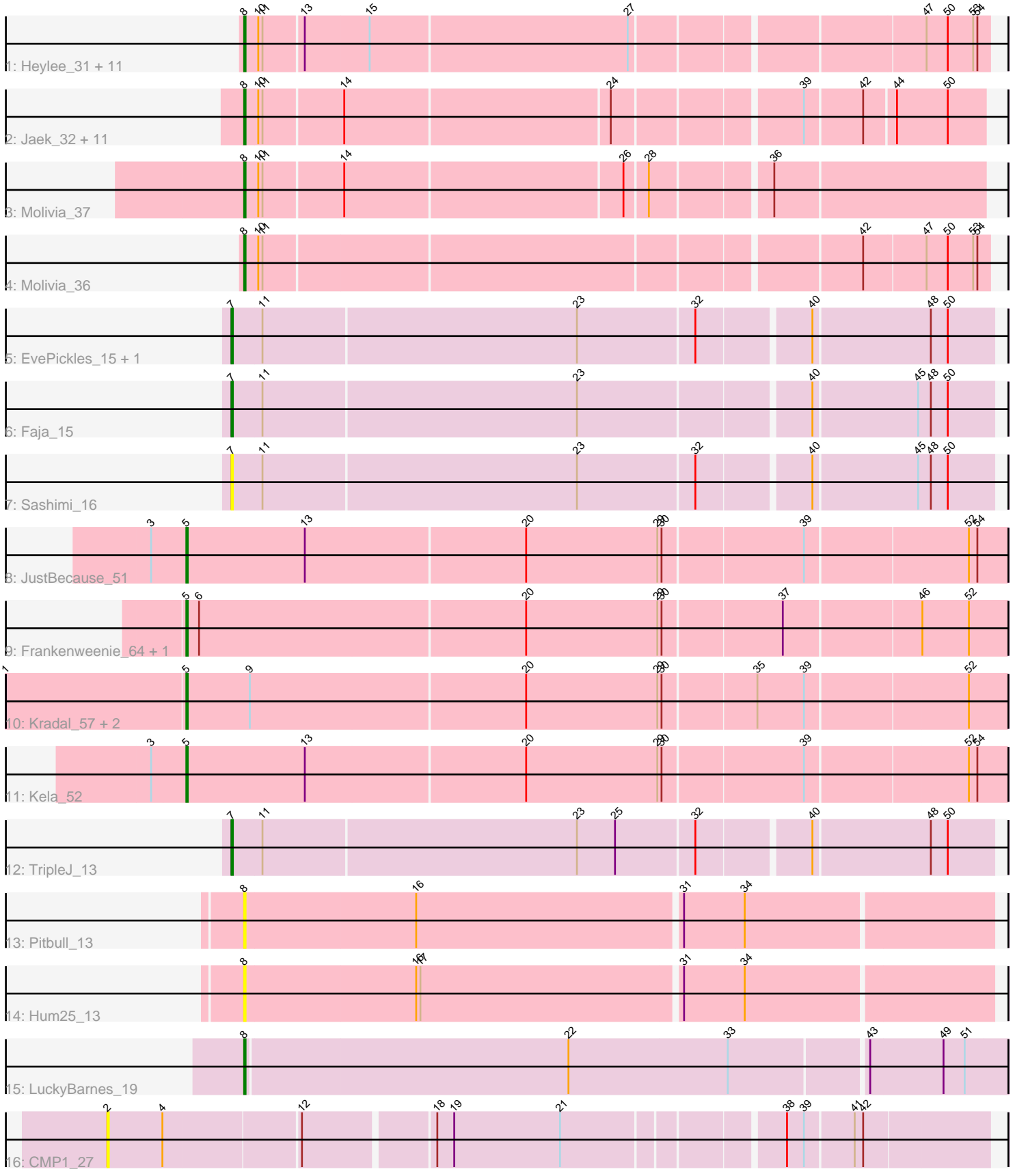


Pham 163720



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 163720 Report

This analysis was run 04/28/24 on database version 559.

Pham number 163720 has 42 members, 10 are drafts.

Phages represented in each track:

- Track 1 : Heylee\_31, Gorgeous\_32, Boersma\_33, Thunderclap\_32, Ichor\_31, Anansi\_32, SorJuana\_32, Yeezus\_31, Jaek\_31, Amigo\_32, Amavida\_31, Rings\_31
- Track 2 : Jaek\_32, Gorgeous\_33, Heylee\_32, Thunderclap\_33, Anansi\_33, Ichor\_32, SorJuana\_33, Yeezus\_32, Amigo\_33, Boersma\_34, Rings\_32, Amavida\_32
- Track 3 : Molivia\_37
- Track 4 : Molivia\_36
- Track 5 : EvePickles\_15, Kukla\_13
- Track 6 : Faja\_15
- Track 7 : Sashimi\_16
- Track 8 : JustBecause\_51
- Track 9 : Frankenweenie\_64, Nirvana\_62
- Track 10 : Kradal\_57, EhyElimayoE\_57, Satis\_57
- Track 11 : Kela\_52
- Track 12 : TripleJ\_13
- Track 13 : Pitbull\_13
- Track 14 : Hum25\_13
- Track 15 : LuckyBarnes\_19
- Track 16 : CMP1\_27

### ***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 23 of the 32 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Amavida\_31, Amavida\_32, Amigo\_32, Amigo\_33, Anansi\_32, Anansi\_33, Boersma\_33, Boersma\_34, Gorgeous\_32, Gorgeous\_33, Heylee\_31, Heylee\_32, Hum25\_13, Ichor\_31, Ichor\_32, Jaek\_31, Jaek\_32, LuckyBarnes\_19, Molivia\_36, Molivia\_37, Pitbull\_13, Rings\_31, Rings\_32, SorJuana\_32, SorJuana\_33, Thunderclap\_32, Thunderclap\_33, Yeezus\_31, Yeezus\_32,

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

-

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

• CMP1\_27, EhyElimayoE\_57, EvePickles\_15, Faja\_15, Frankenweenie\_64, JustBecause\_51, Kela\_52, Kradal\_57, Kukla\_13, Nirvana\_62, Sashimi\_16, Satis\_57, TripleJ\_13,

### Summary by start number:

Start 2:

- Found in 1 of 42 ( 2.4% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: CMP1\_27 (singleton),

Start 5:

- Found in 7 of 42 ( 16.7% ) 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: EhyElimayoE\_57 (BM), Frankenweenie\_64 (BM), JustBecause\_51 (BM), Kela\_52 (BM), Kradal\_57 (BM), Nirvana\_62 (BM), Satis\_57 (BM),

Start 7:

- Found in 5 of 42 ( 11.9% ) of genes in pham
- Manual Annotations of this start: 3 of 32
- Called 100.0% of time when present
- Phage (with cluster) where this start called: EvePickles\_15 (AY), Faja\_15 (AY), Kukla\_13 (FJ), Sashimi\_16 (AY), TripleJ\_13 (FJ),

Start 8:

- Found in 29 of 42 ( 69.0% ) of genes in pham
- Manual Annotations of this start: 23 of 32
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Amavida\_31 (AQ), Amavida\_32 (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\_31 (AQ), Heylee\_32 (AQ), Hum25\_13 (FQ), Ichor\_31 (AQ), Ichor\_32 (AQ), Jaek\_31 (AQ), Jaek\_32 (AQ), LuckyBarnes\_19 (singleton), Molivia\_36 (AQ), Molivia\_37 (AQ), Pitbull\_13 (FQ), Rings\_31 (AQ), Rings\_32 (AQ), SorJuana\_32 (AQ), SorJuana\_33 (AQ), Thunderclap\_32 (AQ), Thunderclap\_33 (AQ), Yeezus\_31 (AQ), Yeezus\_32 (AQ),

### Summary by clusters:

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

Info for manual annotations of cluster AQ:

- Start number 8 was manually annotated 22 times for cluster AQ.

Info for manual annotations of cluster AY:

- Start number 7 was manually annotated 2 times for cluster AY.

Info for manual annotations of cluster BM:

- Start number 5 was manually annotated 6 times for cluster BM.

Info for manual annotations of cluster FJ:

- Start number 7 was manually annotated 1 time for cluster FJ.

### **Gene Information:**

Gene: Amavida\_31 Start: 16804, Stop: 17304, Start Num: 8

Candidate Starts for Amavida\_31:

(Start: 8 @16804 has 23 MA's), (10, 16813), (11, 16816), (13, 16843), (15, 16888), (27, 17068), (47, 17260), (50, 17275), (53, 17293), (54, 17296),

Gene: Amavida\_32 Start: 17306, Stop: 17800, Start Num: 8

Candidate Starts for Amavida\_32:

(Start: 8 @17306 has 23 MA's), (10, 17315), (11, 17318), (14, 17372), (24, 17555), (39, 17678), (42, 17717), (44, 17738), (50, 17774),

Gene: Amigo\_33 Start: 17180, Stop: 17674, Start Num: 8

Candidate Starts for Amigo\_33:

(Start: 8 @17180 has 23 MA's), (10, 17189), (11, 17192), (14, 17246), (24, 17429), (39, 17552), (42, 17591), (44, 17612), (50, 17648),

Gene: Amigo\_32 Start: 16678, Stop: 17178, Start Num: 8

Candidate Starts for Amigo\_32:

(Start: 8 @16678 has 23 MA's), (10, 16687), (11, 16690), (13, 16717), (15, 16762), (27, 16942), (47, 17134), (50, 17149), (53, 17167), (54, 17170),

Gene: Anansi\_33 Start: 17189, Stop: 17683, Start Num: 8

Candidate Starts for Anansi\_33:

(Start: 8 @17189 has 23 MA's), (10, 17198), (11, 17201), (14, 17255), (24, 17438), (39, 17561), (42, 17600), (44, 17621), (50, 17657),

Gene: Anansi\_32 Start: 16687, Stop: 17187, Start Num: 8

Candidate Starts for Anansi\_32:

(Start: 8 @16687 has 23 MA's), (10, 16696), (11, 16699), (13, 16726), (15, 16771), (27, 16951), (47, 17143), (50, 17158), (53, 17176), (54, 17179),

Gene: Boersma\_33 Start: 16678, Stop: 17178, Start Num: 8

Candidate Starts for Boersma\_33:

(Start: 8 @16678 has 23 MA's), (10, 16687), (11, 16690), (13, 16717), (15, 16762), (27, 16942), (47, 17134), (50, 17149), (53, 17167), (54, 17170),

Gene: Boersma\_34 Start: 17180, Stop: 17674, Start Num: 8

Candidate Starts for Boersma\_34:

(Start: 8 @17180 has 23 MA's), (10, 17189), (11, 17192), (14, 17246), (24, 17429), (39, 17552), (42, 17591), (44, 17612), (50, 17648),

Gene: CMP1\_27 Start: 22546, Stop: 23133, Start Num: 2

Candidate Starts for CMP1\_27:

(2, 22546), (4, 22585), (12, 22678), (18, 22765), (19, 22777), (21, 22852), (38, 22996), (39, 23008), (41, 23041), (42, 23047),

Gene: EhyElimayoE\_57 Start: 31705, Stop: 32271, Start Num: 5

Candidate Starts for EhyElimayoE\_57:

(1, 31579), (Start: 5 @31705 has 6 MA's), (9, 31750), (20, 31942), (29, 32035), (30, 32038), (35, 32101), (39, 32134), (52, 32245),

Gene: EvePickles\_15 Start: 9172, Stop: 9693, Start Num: 7

Candidate Starts for EvePickles\_15:

(Start: 7 @9172 has 3 MA's), (11, 9193), (23, 9412), (32, 9493), (40, 9568), (48, 9649), (50, 9661),

Gene: Faja\_15 Start: 9116, Stop: 9637, Start Num: 7

Candidate Starts for Faja\_15:

(Start: 7 @9116 has 3 MA's), (11, 9137), (23, 9356), (40, 9512), (45, 9584), (48, 9593), (50, 9605),

Gene: Frankenweenie\_64 Start: 34296, Stop: 34862, Start Num: 5

Candidate Starts for Frankenweenie\_64:

(Start: 5 @34296 has 6 MA's), (6, 34305), (20, 34533), (29, 34626), (30, 34629), (37, 34710), (46, 34803), (52, 34836),

Gene: Gorgeous\_32 Start: 16687, Stop: 17187, Start Num: 8

Candidate Starts for Gorgeous\_32:

(Start: 8 @16687 has 23 MA's), (10, 16696), (11, 16699), (13, 16726), (15, 16771), (27, 16951), (47, 17143), (50, 17158), (53, 17176), (54, 17179),

Gene: Gorgeous\_33 Start: 17189, Stop: 17683, Start Num: 8

Candidate Starts for Gorgeous\_33:

(Start: 8 @17189 has 23 MA's), (10, 17198), (11, 17201), (14, 17255), (24, 17438), (39, 17561), (42, 17600), (44, 17621), (50, 17657),

Gene: Heylee\_31 Start: 16804, Stop: 17304, Start Num: 8

Candidate Starts for Heylee\_31:

(Start: 8 @16804 has 23 MA's), (10, 16813), (11, 16816), (13, 16843), (15, 16888), (27, 17068), (47, 17260), (50, 17275), (53, 17293), (54, 17296),

Gene: Heylee\_32 Start: 17306, Stop: 17800, Start Num: 8

Candidate Starts for Heylee\_32:

(Start: 8 @17306 has 23 MA's), (10, 17315), (11, 17318), (14, 17372), (24, 17555), (39, 17678), (42, 17717), (44, 17738), (50, 17774),

Gene: Hum25\_13 Start: 7904, Stop: 8419, Start Num: 8

Candidate Starts for Hum25\_13:

(Start: 8 @7904 has 23 MA's), (16, 8024), (17, 8027), (31, 8207), (34, 8249),

Gene: Ichor\_31 Start: 16678, Stop: 17178, Start Num: 8

Candidate Starts for Ichor\_31:

(Start: 8 @16678 has 23 MA's), (10, 16687), (11, 16690), (13, 16717), (15, 16762), (27, 16942), (47, 17134), (50, 17149), (53, 17167), (54, 17170),

Gene: Ichor\_32 Start: 17180, Stop: 17674, Start Num: 8

Candidate Starts for Ichor\_32:

(Start: 8 @17180 has 23 MA's), (10, 17189), (11, 17192), (14, 17246), (24, 17429), (39, 17552), (42, 17591), (44, 17612), (50, 17648),

Gene: Jaek\_32 Start: 17180, Stop: 17674, Start Num: 8

Candidate Starts for Jaek\_32:

(Start: 8 @17180 has 23 MA's), (10, 17189), (11, 17192), (14, 17246), (24, 17429), (39, 17552), (42, 17591), (44, 17612), (50, 17648),

Gene: Jaek\_31 Start: 16678, Stop: 17178, Start Num: 8

Candidate Starts for Jaek\_31:

(Start: 8 @16678 has 23 MA's), (10, 16687), (11, 16690), (13, 16717), (15, 16762), (27, 16942), (47, 17134), (50, 17149), (53, 17167), (54, 17170),

Gene: JustBecause\_51 Start: 28928, Stop: 29494, Start Num: 5

Candidate Starts for JustBecause\_51:

(3, 28904), (Start: 5 @28928 has 6 MA's), (13, 29012), (20, 29165), (29, 29258), (30, 29261), (39, 29357), (52, 29468), (54, 29474),

Gene: Kela\_52 Start: 28793, Stop: 29359, Start Num: 5

Candidate Starts for Kela\_52:

(3, 28769), (Start: 5 @28793 has 6 MA's), (13, 28877), (20, 29030), (29, 29123), (30, 29126), (39, 29222), (52, 29333), (54, 29339),

Gene: Kradal\_57 Start: 31705, Stop: 32271, Start Num: 5

Candidate Starts for Kradal\_57:

(1, 31579), (Start: 5 @31705 has 6 MA's), (9, 31750), (20, 31942), (29, 32035), (30, 32038), (35, 32101), (39, 32134), (52, 32245),

Gene: Kukla\_13 Start: 8634, Stop: 9155, Start Num: 7

Candidate Starts for Kukla\_13:

(Start: 7 @8634 has 3 MA's), (11, 8655), (23, 8874), (32, 8955), (40, 9030), (48, 9111), (50, 9123),

Gene: LuckyBarnes\_19 Start: 11489, Stop: 12013, Start Num: 8

Candidate Starts for LuckyBarnes\_19:

(Start: 8 @11489 has 23 MA's), (22, 11714), (33, 11825), (43, 11918), (49, 11969), (51, 11984),

Gene: Molivia\_37 Start: 17428, Stop: 17925, Start Num: 8

Candidate Starts for Molivia\_37:

(Start: 8 @17428 has 23 MA's), (10, 17437), (11, 17440), (14, 17494), (26, 17686), (28, 17701), (36, 17779),

Gene: Molivia\_36 Start: 16925, Stop: 17425, Start Num: 8

Candidate Starts for Molivia\_36:

(Start: 8 @16925 has 23 MA's), (10, 16934), (11, 16937), (42, 17339), (47, 17381), (50, 17396), (53, 17414), (54, 17417),

Gene: Nirvana\_62 Start: 33669, Stop: 34235, Start Num: 5

Candidate Starts for Nirvana\_62:

(Start: 5 @33669 has 6 MA's), (6, 33678), (20, 33906), (29, 33999), (30, 34002), (37, 34083), (46, 34176), (52, 34209),

Gene: Pitbull\_13 Start: 7534, Stop: 8049, Start Num: 8

Candidate Starts for Pitbull\_13:

(Start: 8 @7534 has 23 MA's), (16, 7654), (31, 7837), (34, 7879),

Gene: Rings\_32 Start: 17311, Stop: 17805, Start Num: 8

Candidate Starts for Rings\_32:

(Start: 8 @17311 has 23 MA's), (10, 17320), (11, 17323), (14, 17377), (24, 17560), (39, 17683), (42, 17722), (44, 17743), (50, 17779),

Gene: Rings\_31 Start: 16809, Stop: 17309, Start Num: 8

Candidate Starts for Rings\_31:

(Start: 8 @16809 has 23 MA's), (10, 16818), (11, 16821), (13, 16848), (15, 16893), (27, 17073), (47, 17265), (50, 17280), (53, 17298), (54, 17301),

Gene: Sashimi\_16 Start: 9234, Stop: 9755, Start Num: 7

Candidate Starts for Sashimi\_16:

(Start: 7 @9234 has 3 MA's), (11, 9255), (23, 9474), (32, 9555), (40, 9630), (45, 9702), (48, 9711), (50, 9723),

Gene: Satis\_57 Start: 31701, Stop: 32267, Start Num: 5

Candidate Starts for Satis\_57:

(1, 31575), (Start: 5 @31701 has 6 MA's), (9, 31746), (20, 31938), (29, 32031), (30, 32034), (35, 32097), (39, 32130), (52, 32241),

Gene: SorJuana\_33 Start: 17189, Stop: 17683, Start Num: 8

Candidate Starts for SorJuana\_33:

(Start: 8 @17189 has 23 MA's), (10, 17198), (11, 17201), (14, 17255), (24, 17438), (39, 17561), (42, 17600), (44, 17621), (50, 17657),

Gene: SorJuana\_32 Start: 16687, Stop: 17187, Start Num: 8

Candidate Starts for SorJuana\_32:

(Start: 8 @16687 has 23 MA's), (10, 16696), (11, 16699), (13, 16726), (15, 16771), (27, 16951), (47, 17143), (50, 17158), (53, 17176), (54, 17179),

Gene: Thunderclap\_32 Start: 16707, Stop: 17207, Start Num: 8

Candidate Starts for Thunderclap\_32:

(Start: 8 @16707 has 23 MA's), (10, 16716), (11, 16719), (13, 16746), (15, 16791), (27, 16971), (47, 17163), (50, 17178), (53, 17196), (54, 17199),

Gene: Thunderclap\_33 Start: 17209, Stop: 17703, Start Num: 8

Candidate Starts for Thunderclap\_33:

(Start: 8 @17209 has 23 MA's), (10, 17218), (11, 17221), (14, 17275), (24, 17458), (39, 17581), (42, 17620), (44, 17641), (50, 17677),

Gene: TripleJ\_13 Start: 8929, Stop: 9450, Start Num: 7

Candidate Starts for TripleJ\_13:

(Start: 7 @8929 has 3 MA's), (11, 8950), (23, 9169), (25, 9196), (32, 9250), (40, 9325), (48, 9406), (50, 9418),

Gene: Yeezus\_31 Start: 16677, Stop: 17177, Start Num: 8

Candidate Starts for Yeezus\_31:

(Start: 8 @16677 has 23 MA's), (10, 16686), (11, 16689), (13, 16716), (15, 16761), (27, 16941), (47, 17133), (50, 17148), (53, 17166), (54, 17169),

Gene: Yeezus\_32 Start: 17179, Stop: 17673, Start Num: 8

Candidate Starts for Yeezus\_32:

(Start: 8 @17179 has 23 MA's), (10, 17188), (11, 17191), (14, 17245), (24, 17428), (39, 17551), (42, 17590), (44, 17611), (50, 17647),