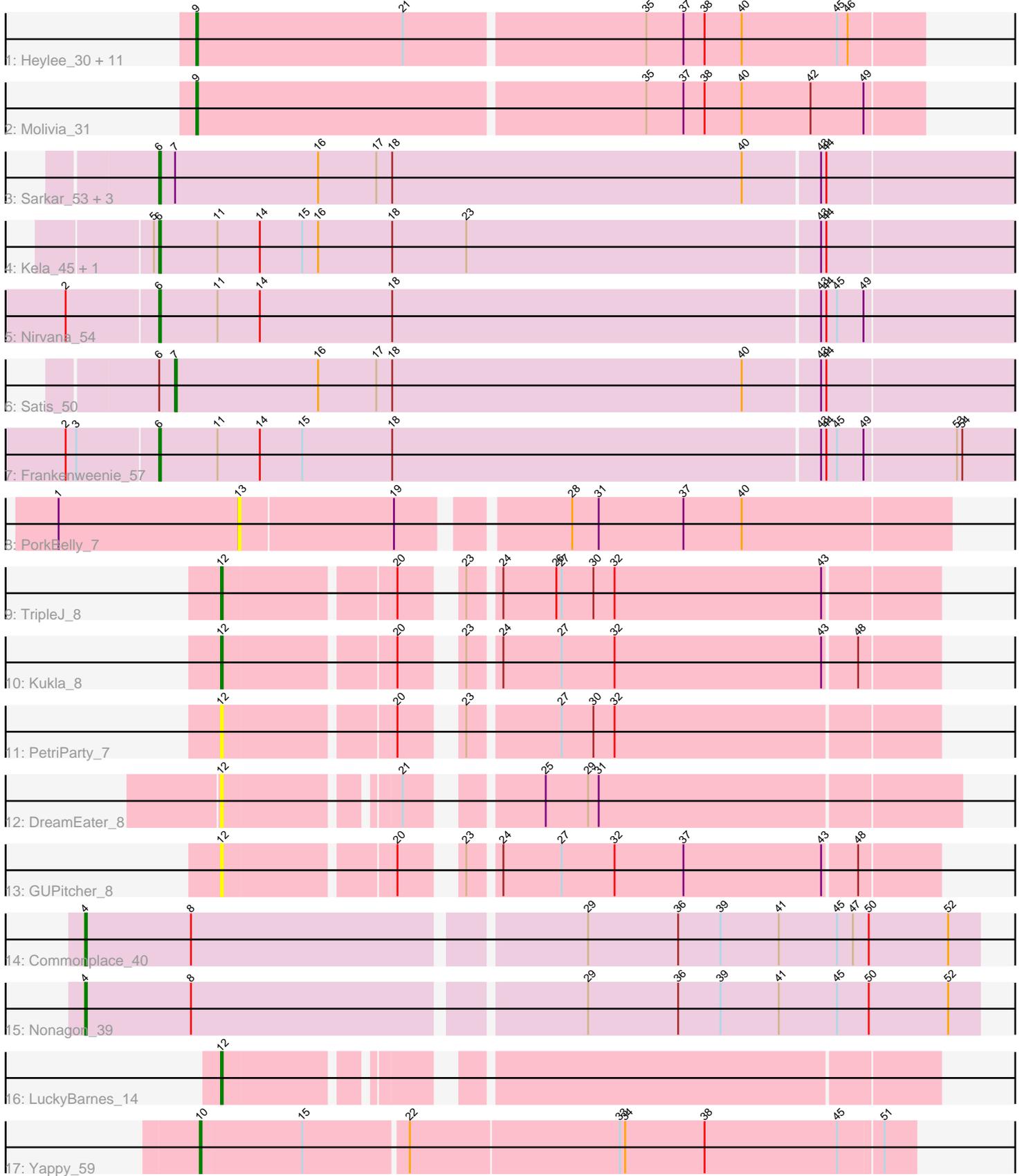


Pham 291388



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 291388 Report

This analysis was run 03/28/26 on database version 641.

Pham number 291388 has 32 members, 5 are drafts.

Phages represented in each track:

- Track 1 : Heylee\_30, Gorgeous\_27, Thunderclap\_27, Ichor\_26, Jaek\_26, Anansi\_27, SorJuana\_27, Yeezus\_26, Boersma\_28, Amigo\_27, Amavida\_30, Rings\_26
- Track 2 : Molivia\_31
- Track 3 : Sarkar\_53, Quantum\_49, Kradal\_50, EhyElimayoE\_50
- Track 4 : Kela\_45, JustBecause\_44
- Track 5 : Nirvana\_54
- Track 6 : Satis\_50
- Track 7 : Frankenweenie\_57
- Track 8 : PorkBelly\_7
- Track 9 : TripleJ\_8
- Track 10 : Kukla\_8
- Track 11 : PetriParty\_7
- Track 12 : DreamEater\_8
- Track 13 : GUPitcher\_8
- Track 14 : Commonplace\_40
- Track 15 : Nonagon\_39
- Track 16 : LuckyBarnes\_14
- Track 17 : Yappy\_59

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

The start number called the most often in the published annotations is 9, it was called in 13 of the 27 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Amavida\_30, Amigo\_27, Anansi\_27, Boersma\_28, Gorgeous\_27, Heylee\_30, Ichor\_26, Jaek\_26, Molivia\_31, Rings\_26, SorJuana\_27, Thunderclap\_27, Yeezus\_26,

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

- 

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

- Commonplace\_40, DreamEater\_8, EhyElimayoE\_50, Frankenweenie\_57, GUPitcher\_8, JustBecause\_44, Kela\_45, Kradal\_50, Kukla\_8, LuckyBarnes\_14, Nirvana\_54, Nonagon\_39, PetriParty\_7, PorkBelly\_7, Quantum\_49, Sarkar\_53, Satis\_50, TripleJ\_8, Yappy\_59,

### Summary by start number:

#### Start 4:

- Found in 2 of 32 ( 6.2% ) of genes in pham
- Manual Annotations of this start: 2 of 27
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Commonplace\_40 (JD), Nonagon\_39 (JD),

#### Start 6:

- Found in 9 of 32 ( 28.1% ) of genes in pham
- Manual Annotations of this start: 7 of 27
- Called 88.9% of time when present
- Phage (with cluster) where this start called: EhyElimayoE\_50 (BM), Frankenweenie\_57 (BM), JustBecause\_44 (BM), Kela\_45 (BM), Kradal\_50 (BM), Nirvana\_54 (BM), Quantum\_49 (BM), Sarkar\_53 (BM),

#### Start 7:

- Found in 5 of 32 ( 15.6% ) of genes in pham
- Manual Annotations of this start: 1 of 27
- Called 20.0% of time when present
- Phage (with cluster) where this start called: Satis\_50 (BM),

#### Start 9:

- Found in 13 of 32 ( 40.6% ) of genes in pham
- Manual Annotations of this start: 13 of 27
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Amavida\_30 (AQ), Amigo\_27 (AQ), Anansi\_27 (AQ), Boersma\_28 (AQ), Gorgeous\_27 (AQ), Heylee\_30 (AQ), Ichor\_26 (AQ), Jaek\_26 (AQ), Molivia\_31 (AQ), Rings\_26 (AQ), SorJuana\_27 (AQ), Thunderclap\_27 (AQ), Yeezus\_26 (AQ),

#### Start 10:

- Found in 1 of 32 ( 3.1% ) of genes in pham
- Manual Annotations of this start: 1 of 27
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Yappy\_59 (singleton),

#### Start 12:

- Found in 6 of 32 ( 18.8% ) of genes in pham
- Manual Annotations of this start: 3 of 27
- Called 100.0% of time when present
- Phage (with cluster) where this start called: DreamEater\_8 (FJ), GUPitcher\_8 (FJ), Kukla\_8 (FJ), LuckyBarnes\_14 (singleton), PetriParty\_7 (FJ), TripleJ\_8 (FJ),

#### Start 13:

- Found in 1 of 32 ( 3.1% ) of genes in pham
- No Manual Annotations of this start.

- Called 100.0% of time when present
- Phage (with cluster) where this start called: PorkBelly\_7 (FJ),

### **Summary by clusters:**

There are 5 clusters represented in this pham: AQ, BM, FJ, singleton, JD,

Info for manual annotations of cluster AQ:

- Start number 9 was manually annotated 13 times for cluster AQ.

Info for manual annotations of cluster BM:

- Start number 6 was manually annotated 7 times for cluster BM.
- Start number 7 was manually annotated 1 time for cluster BM.

Info for manual annotations of cluster FJ:

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

Info for manual annotations of cluster JD:

- Start number 4 was manually annotated 2 times for cluster JD.

### **Gene Information:**

Gene: Amavida\_30 Start: 14813, Stop: 15217, Start Num: 9

Candidate Starts for Amavida\_30:

(Start: 9 @14813 has 13 MA's), (21, 14930), (35, 15062), (37, 15083), (38, 15095), (40, 15116), (45, 15170), (46, 15176),

Gene: Amigo\_27 Start: 14687, Stop: 15091, Start Num: 9

Candidate Starts for Amigo\_27:

(Start: 9 @14687 has 13 MA's), (21, 14804), (35, 14936), (37, 14957), (38, 14969), (40, 14990), (45, 15044), (46, 15050),

Gene: Anansi\_27 Start: 14696, Stop: 15100, Start Num: 9

Candidate Starts for Anansi\_27:

(Start: 9 @14696 has 13 MA's), (21, 14813), (35, 14945), (37, 14966), (38, 14978), (40, 14999), (45, 15053), (46, 15059),

Gene: Boersma\_28 Start: 14687, Stop: 15091, Start Num: 9

Candidate Starts for Boersma\_28:

(Start: 9 @14687 has 13 MA's), (21, 14804), (35, 14936), (37, 14957), (38, 14969), (40, 14990), (45, 15044), (46, 15050),

Gene: Commonplace\_40 Start: 22597, Stop: 23088, Start Num: 4

Candidate Starts for Commonplace\_40:

(Start: 4 @22597 has 2 MA's), (8, 22657), (29, 22867), (36, 22918), (39, 22942), (41, 22975), (45, 23008), (47, 23017), (50, 23026), (52, 23071),

Gene: DreamEater\_8 Start: 7103, Stop: 7480, Start Num: 12

Candidate Starts for DreamEater\_8:

(Start: 12 @7103 has 3 MA's), (21, 7190), (25, 7250), (29, 7274), (31, 7280),

Gene: EhyElimayoE\_50 Start: 27577, Stop: 28065, Start Num: 6  
Candidate Starts for EhyElimayoE\_50:  
(Start: 6 @27577 has 7 MA's), (Start: 7 @27586 has 1 MA's), (16, 27667), (17, 27700), (18, 27709),  
(40, 27907), (43, 27949), (44, 27952),

Gene: Frankenweenie\_57 Start: 30164, Stop: 30652, Start Num: 6  
Candidate Starts for Frankenweenie\_57:  
(2, 30113), (3, 30119), (Start: 6 @30164 has 7 MA's), (11, 30197), (14, 30221), (15, 30245), (18,  
30296), (43, 30536), (44, 30539), (45, 30545), (49, 30560), (53, 30611), (54, 30614),

Gene: GUPitcher\_8 Start: 6754, Stop: 7125, Start Num: 12  
Candidate Starts for GUPitcher\_8:  
(Start: 12 @6754 has 3 MA's), (20, 6844), (23, 6868), (24, 6883), (27, 6916), (32, 6946), (37, 6985),  
(43, 7063), (48, 7081),

Gene: Gorgeous\_27 Start: 14696, Stop: 15100, Start Num: 9  
Candidate Starts for Gorgeous\_27:  
(Start: 9 @14696 has 13 MA's), (21, 14813), (35, 14945), (37, 14966), (38, 14978), (40, 14999), (45,  
15053), (46, 15059),

Gene: Heylee\_30 Start: 14813, Stop: 15217, Start Num: 9  
Candidate Starts for Heylee\_30:  
(Start: 9 @14813 has 13 MA's), (21, 14930), (35, 15062), (37, 15083), (38, 15095), (40, 15116), (45,  
15170), (46, 15176),

Gene: Ichor\_26 Start: 14687, Stop: 15091, Start Num: 9  
Candidate Starts for Ichor\_26:  
(Start: 9 @14687 has 13 MA's), (21, 14804), (35, 14936), (37, 14957), (38, 14969), (40, 14990), (45,  
15044), (46, 15050),

Gene: Jaek\_26 Start: 14687, Stop: 15091, Start Num: 9  
Candidate Starts for Jaek\_26:  
(Start: 9 @14687 has 13 MA's), (21, 14804), (35, 14936), (37, 14957), (38, 14969), (40, 14990), (45,  
15044), (46, 15050),

Gene: JustBecause\_44 Start: 24800, Stop: 25288, Start Num: 6  
Candidate Starts for JustBecause\_44:  
(5, 24797), (Start: 6 @24800 has 7 MA's), (11, 24833), (14, 24857), (15, 24881), (16, 24890), (18,  
24932), (23, 24974), (43, 25172), (44, 25175),

Gene: Kela\_45 Start: 24665, Stop: 25153, Start Num: 6  
Candidate Starts for Kela\_45:  
(5, 24662), (Start: 6 @24665 has 7 MA's), (11, 24698), (14, 24722), (15, 24746), (16, 24755), (18,  
24797), (23, 24839), (43, 25037), (44, 25040),

Gene: Kradal\_50 Start: 27577, Stop: 28065, Start Num: 6  
Candidate Starts for Kradal\_50:  
(Start: 6 @27577 has 7 MA's), (Start: 7 @27586 has 1 MA's), (16, 27667), (17, 27700), (18, 27709),  
(40, 27907), (43, 27949), (44, 27952),

Gene: Kukla\_8 Start: 6781, Stop: 7152, Start Num: 12  
Candidate Starts for Kukla\_8:

(Start: 12 @6781 has 3 MA's), (20, 6871), (23, 6895), (24, 6910), (27, 6943), (32, 6973), (43, 7090), (48, 7108),

Gene: LuckyBarnes\_14 Start: 9588, Stop: 9953, Start Num: 12

Candidate Starts for LuckyBarnes\_14:

(Start: 12 @9588 has 3 MA's),

Gene: Molivia\_31 Start: 14946, Stop: 15350, Start Num: 9

Candidate Starts for Molivia\_31:

(Start: 9 @14946 has 13 MA's), (35, 15195), (37, 15216), (38, 15228), (40, 15249), (42, 15288), (49, 15318),

Gene: Nirvana\_54 Start: 29563, Stop: 30051, Start Num: 6

Candidate Starts for Nirvana\_54:

(2, 29512), (Start: 6 @29563 has 7 MA's), (11, 29596), (14, 29620), (18, 29695), (43, 29935), (44, 29938), (45, 29944), (49, 29959),

Gene: Nonagon\_39 Start: 22297, Stop: 22788, Start Num: 4

Candidate Starts for Nonagon\_39:

(Start: 4 @22297 has 2 MA's), (8, 22357), (29, 22567), (36, 22618), (39, 22642), (41, 22675), (45, 22708), (50, 22726), (52, 22771),

Gene: PetriParty\_7 Start: 7062, Stop: 7433, Start Num: 12

Candidate Starts for PetriParty\_7:

(Start: 12 @7062 has 3 MA's), (20, 7152), (23, 7176), (27, 7224), (30, 7242), (32, 7254),

Gene: PorkBelly\_7 Start: 6805, Stop: 7185, Start Num: 13

Candidate Starts for PorkBelly\_7:

(1, 6703), (13, 6805), (19, 6889), (28, 6973), (31, 6988), (37, 7036), (40, 7069),

Gene: Quantum\_49 Start: 27577, Stop: 28065, Start Num: 6

Candidate Starts for Quantum\_49:

(Start: 6 @27577 has 7 MA's), (Start: 7 @27586 has 1 MA's), (16, 27667), (17, 27700), (18, 27709), (40, 27907), (43, 27949), (44, 27952),

Gene: Rings\_26 Start: 14818, Stop: 15222, Start Num: 9

Candidate Starts for Rings\_26:

(Start: 9 @14818 has 13 MA's), (21, 14935), (35, 15067), (37, 15088), (38, 15100), (40, 15121), (45, 15175), (46, 15181),

Gene: Sarkar\_53 Start: 27577, Stop: 28065, Start Num: 6

Candidate Starts for Sarkar\_53:

(Start: 6 @27577 has 7 MA's), (Start: 7 @27586 has 1 MA's), (16, 27667), (17, 27700), (18, 27709), (40, 27907), (43, 27949), (44, 27952),

Gene: Satis\_50 Start: 27582, Stop: 28061, Start Num: 7

Candidate Starts for Satis\_50:

(Start: 6 @27573 has 7 MA's), (Start: 7 @27582 has 1 MA's), (16, 27663), (17, 27696), (18, 27705), (40, 27903), (43, 27945), (44, 27948),

Gene: SorJuana\_27 Start: 14696, Stop: 15100, Start Num: 9

Candidate Starts for SorJuana\_27:

(Start: 9 @14696 has 13 MA's), (21, 14813), (35, 14945), (37, 14966), (38, 14978), (40, 14999), (45, 15053), (46, 15059),

Gene: Thunderclap\_27 Start: 14716, Stop: 15120, Start Num: 9

Candidate Starts for Thunderclap\_27:

(Start: 9 @14716 has 13 MA's), (21, 14833), (35, 14965), (37, 14986), (38, 14998), (40, 15019), (45, 15073), (46, 15079),

Gene: TripleJ\_8 Start: 7069, Stop: 7440, Start Num: 12

Candidate Starts for TripleJ\_8:

(Start: 12 @7069 has 3 MA's), (20, 7159), (23, 7183), (24, 7198), (26, 7228), (27, 7231), (30, 7249), (32, 7261), (43, 7378),

Gene: Yappy\_59 Start: 20679, Stop: 21074, Start Num: 10

Candidate Starts for Yappy\_59:

(Start: 10 @20679 has 1 MA's), (15, 20736), (22, 20793), (33, 20910), (34, 20913), (38, 20958), (45, 21033), (51, 21057),

Gene: Yeezus\_26 Start: 14686, Stop: 15090, Start Num: 9

Candidate Starts for Yeezus\_26:

(Start: 9 @14686 has 13 MA's), (21, 14803), (35, 14935), (37, 14956), (38, 14968), (40, 14989), (45, 15043), (46, 15049),