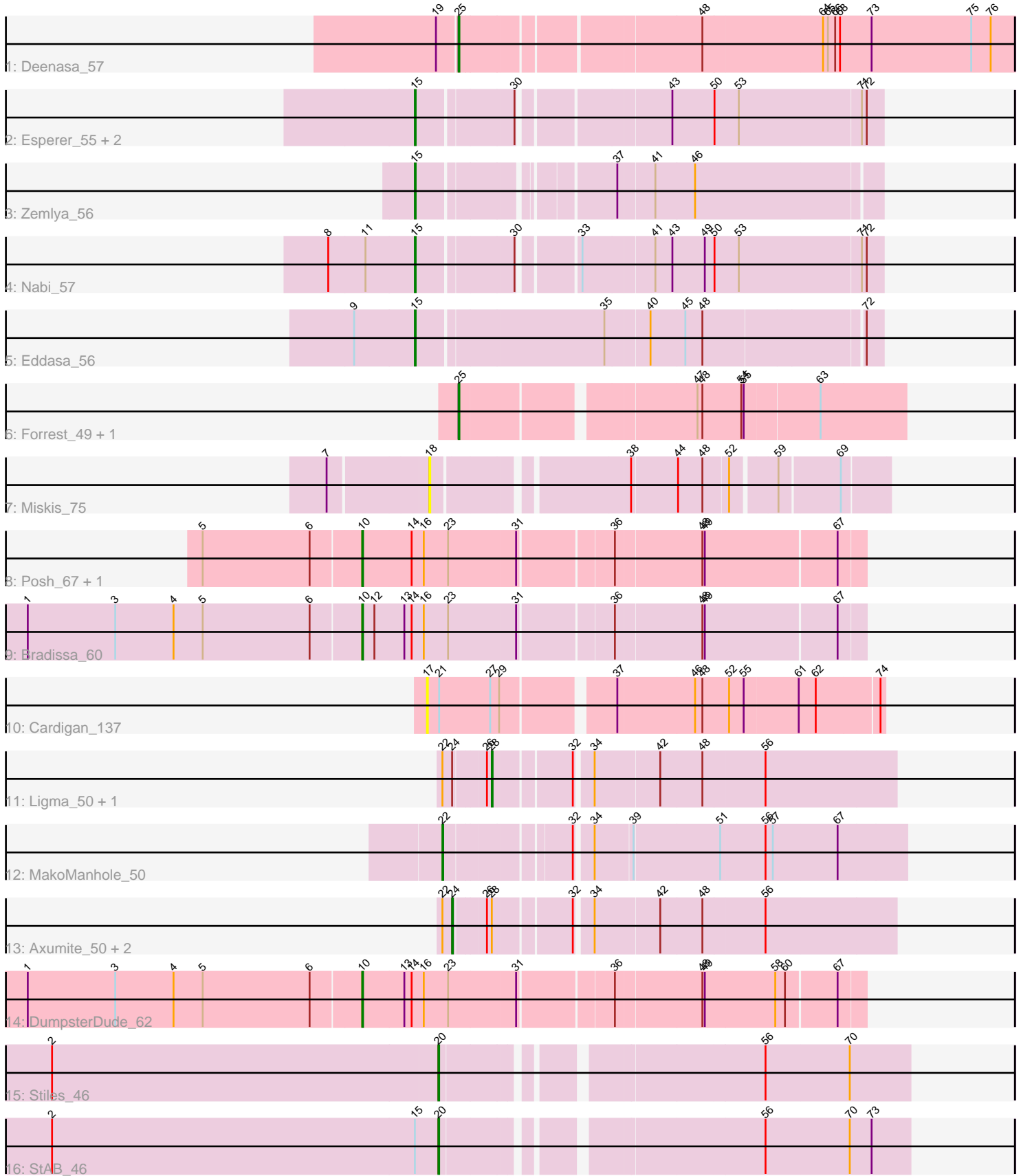


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Note: Tracks are now grouped by subcluster and scaled. Switching in subcluster is indicated by changes in track color. Track scale is now set by default to display the region 30 bp upstream of start 1 to 30 bp downstream of the last possible start. 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 192869 Report

This analysis was run 11/02/24 on database version 579.

Pham number 192869 has 23 members, 3 are drafts.

Phages represented in each track:

- Track 1 : Deenasa\_57
- Track 2 : Esperer\_55, Leviticus\_55, Hydra\_56
- Track 3 : Zemlya\_56
- Track 4 : Nabi\_57
- Track 5 : Eddasa\_56
- Track 6 : Forrest\_49, Jada\_47
- Track 7 : Miskis\_75
- Track 8 : Posh\_67, Wrigley\_69
- Track 9 : Bradissa\_60
- Track 10 : Cardigan\_137
- Track 11 : Ligma\_50, Fresco\_50
- Track 12 : MakoManhole\_50
- Track 13 : Axumite\_50, Shatter\_50, CharlottesWeb\_49
- Track 14 : DumpsterDude\_62
- Track 15 : Stiles\_46
- Track 16 : StAB\_46

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

The start number called the most often in the published annotations is 15, it was called in 6 of the 20 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Eddasa\_56, Esperer\_55, Hydra\_56, Leviticus\_55, Nabi\_57, Zemlya\_56,

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

- StAB\_46,

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

- Axumite\_50, Bradissa\_60, Cardigan\_137, CharlottesWeb\_49, Deenasa\_57, DumpsterDude\_62, Forrest\_49, Fresco\_50, Jada\_47, Ligma\_50, MakoManhole\_50, Miskis\_75, Posh\_67, Shatter\_50, Stiles\_46, Wrigley\_69,

### **Summary by start number:**

Start 10:

- Found in 4 of 23 ( 17.4% ) of genes in pham
- Manual Annotations of this start: 4 of 20
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Bradissa\_60 (CY1), DumpsterDude\_62 (DW), Posh\_67 (CY), Wrigley\_69 (CY),

Start 15:

- Found in 7 of 23 ( 30.4% ) of genes in pham
- Manual Annotations of this start: 6 of 20
- Called 85.7% of time when present
- Phage (with cluster) where this start called: Eddasa\_56 (BD1), Esperer\_55 (BD1), Hydra\_56 (BD1), Leviticus\_55 (BD1), Nabi\_57 (BD1), Zemlya\_56 (BD1),

Start 17:

- Found in 1 of 23 ( 4.3% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Cardigan\_137 (DD),

Start 18:

- Found in 1 of 23 ( 4.3% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Miskis\_75 (CQ1),

Start 20:

- Found in 2 of 23 ( 8.7% ) of genes in pham
- Manual Annotations of this start: 2 of 20
- Called 100.0% of time when present
- Phage (with cluster) where this start called: StAB\_46 (EP), Stiles\_46 (EP),

Start 22:

- Found in 6 of 23 ( 26.1% ) of genes in pham
- Manual Annotations of this start: 1 of 20
- Called 16.7% of time when present
- Phage (with cluster) where this start called: MakoManhole\_50 (DR),

Start 24:

- Found in 5 of 23 ( 21.7% ) of genes in pham
- Manual Annotations of this start: 2 of 20
- Called 60.0% of time when present
- Phage (with cluster) where this start called: Axumite\_50 (DR), CharlottesWeb\_49 (DR), Shatter\_50 (DR),

Start 25:

- Found in 3 of 23 ( 13.0% ) of genes in pham
- Manual Annotations of this start: 3 of 20
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Deenasa\_57 (B3), Forrest\_49 (BK1), Jada\_47 (BK1),

Start 28:

- Found in 5 of 23 ( 21.7% ) of genes in pham
- Manual Annotations of this start: 2 of 20
- Called 40.0% of time when present
- Phage (with cluster) where this start called: Fresco\_50 (DR), Ligma\_50 (DR),

### **Summary by clusters:**

There are 10 clusters represented in this pham: CY1, DD, CY, BD1, BK1, B3, DW, CQ1, DR, EP,

Info for manual annotations of cluster B3:

- Start number 25 was manually annotated 1 time for cluster B3.

Info for manual annotations of cluster BD1:

- Start number 15 was manually annotated 6 times for cluster BD1.

Info for manual annotations of cluster BK1:

- Start number 25 was manually annotated 2 times for cluster BK1.

Info for manual annotations of cluster CY:

- Start number 10 was manually annotated 2 times for cluster CY.

Info for manual annotations of cluster CY1:

- Start number 10 was manually annotated 1 time for cluster CY1.

Info for manual annotations of cluster DR:

- Start number 22 was manually annotated 1 time for cluster DR.
- Start number 24 was manually annotated 2 times for cluster DR.
- Start number 28 was manually annotated 2 times for cluster DR.

Info for manual annotations of cluster DW:

- Start number 10 was manually annotated 1 time for cluster DW.

Info for manual annotations of cluster EP:

- Start number 20 was manually annotated 2 times for cluster EP.

### **Gene Information:**

Gene: Axumite\_50 Start: 44137, Stop: 43628, Start Num: 24

Candidate Starts for Axumite\_50:

(Start: 22 @44149 has 1 MA's), (Start: 24 @44137 has 2 MA's), (26, 44101), (Start: 28 @44095 has 2 MA's), (32, 44008), (34, 43990), (42, 43912), (48, 43861), (56, 43786),

Gene: Bradissa\_60 Start: 44116, Stop: 44703, Start Num: 10

Candidate Starts for Bradissa\_60:

(1, 43708), (3, 43816), (4, 43888), (5, 43924), (6, 44056), (Start: 10 @44116 has 4 MA's), (12, 44131), (13, 44167), (14, 44176), (16, 44191), (23, 44221), (31, 44302), (36, 44410), (48, 44512), (49, 44515), (67, 44671),

Gene: Cardigan\_137 Start: 77101, Stop: 77631, Start Num: 17

Candidate Starts for Cardigan\_137:

(17, 77101), (21, 77116), (27, 77179), (29, 77188), (37, 77311), (46, 77404), (48, 77413), (52, 77446), (55, 77464), (61, 77530), (62, 77551), (74, 77626),

Gene: CharlottesWeb\_49 Start: 43503, Stop: 42994, Start Num: 24

Candidate Starts for CharlottesWeb\_49:

(Start: 22 @43515 has 1 MA's), (Start: 24 @43503 has 2 MA's), (26, 43467), (Start: 28 @43461 has 2 MA's), (32, 43374), (34, 43356), (42, 43278), (48, 43227), (56, 43152),

Gene: Deenasa\_57 Start: 52719, Stop: 52066, Start Num: 25

Candidate Starts for Deenasa\_57:

(19, 52743), (Start: 25 @52719 has 3 MA's), (48, 52446), (64, 52302), (65, 52296), (66, 52287), (68, 52281), (73, 52242), (75, 52119), (76, 52095),

Gene: DumpsterDude\_62 Start: 46219, Stop: 46806, Start Num: 10

Candidate Starts for DumpsterDude\_62:

(1, 45811), (3, 45919), (4, 45991), (5, 46027), (6, 46159), (Start: 10 @46219 has 4 MA's), (13, 46270), (14, 46279), (16, 46294), (23, 46324), (31, 46405), (36, 46513), (48, 46615), (49, 46618), (58, 46702), (60, 46714), (67, 46774),

Gene: Eddasa\_56 Start: 41265, Stop: 40723, Start Num: 15

Candidate Starts for Eddasa\_56:

(9, 41334), (Start: 15 @41265 has 6 MA's), (35, 41046), (40, 40995), (45, 40953), (48, 40932), (72, 40743),

Gene: Esperer\_55 Start: 40815, Stop: 40285, Start Num: 15

Candidate Starts for Esperer\_55:

(Start: 15 @40815 has 6 MA's), (30, 40707), (43, 40539), (50, 40488), (53, 40458), (71, 40311), (72, 40305),

Gene: Forrest\_49 Start: 41931, Stop: 42446, Start Num: 25

Candidate Starts for Forrest\_49:

(Start: 25 @41931 has 3 MA's), (47, 42195), (48, 42201), (54, 42249), (55, 42252), (63, 42342),

Gene: Fresco\_50 Start: 44095, Stop: 43628, Start Num: 28

Candidate Starts for Fresco\_50:

(Start: 22 @44149 has 1 MA's), (Start: 24 @44137 has 2 MA's), (26, 44101), (Start: 28 @44095 has 2 MA's), (32, 44008), (34, 43990), (42, 43912), (48, 43861), (56, 43786),

Gene: Hydra\_56 Start: 41651, Stop: 41121, Start Num: 15

Candidate Starts for Hydra\_56:

(Start: 15 @41651 has 6 MA's), (30, 41543), (43, 41375), (50, 41324), (53, 41294), (71, 41147), (72, 41141),

Gene: Jada\_47 Start: 41113, Stop: 41628, Start Num: 25

Candidate Starts for Jada\_47:

(Start: 25 @41113 has 3 MA's), (47, 41377), (48, 41383), (54, 41431), (55, 41434), (63, 41524),

Gene: Leviticus\_55 Start: 41002, Stop: 40472, Start Num: 15

Candidate Starts for Leviticus\_55:

(Start: 15 @41002 has 6 MA's), (30, 40894), (43, 40726), (50, 40675), (53, 40645), (71, 40498), (72, 40492),

Gene: Ligma\_50 Start: 44095, Stop: 43628, Start Num: 28

Candidate Starts for Ligma\_50:

(Start: 22 @44149 has 1 MA's), (Start: 24 @44137 has 2 MA's), (26, 44101), (Start: 28 @44095 has 2 MA's), (32, 44008), (34, 43990), (42, 43912), (48, 43861), (56, 43786),

Gene: MakoManhole\_50 Start: 45251, Stop: 44724, Start Num: 22

Candidate Starts for MakoManhole\_50:

(Start: 22 @45251 has 1 MA's), (32, 45113), (34, 45095), (39, 45050), (51, 44948), (56, 44894), (57, 44885), (67, 44807),

Gene: Miskis\_75 Start: 47774, Stop: 48271, Start Num: 18

Candidate Starts for Miskis\_75:

(7, 47657), (18, 47774), (38, 47984), (44, 48038), (48, 48068), (52, 48095), (59, 48146), (69, 48215),

Gene: Nabi\_57 Start: 42255, Stop: 41725, Start Num: 15

Candidate Starts for Nabi\_57:

(8, 42360), (11, 42315), (Start: 15 @42255 has 6 MA's), (30, 42147), (33, 42084), (41, 42000), (43, 41979), (49, 41940), (50, 41928), (53, 41898), (71, 41751), (72, 41745),

Gene: Posh\_67 Start: 45892, Stop: 46479, Start Num: 10

Candidate Starts for Posh\_67:

(5, 45700), (6, 45832), (Start: 10 @45892 has 4 MA's), (14, 45952), (16, 45967), (23, 45997), (31, 46078), (36, 46186), (48, 46288), (49, 46291), (67, 46447),

Gene: Shatter\_50 Start: 44137, Stop: 43628, Start Num: 24

Candidate Starts for Shatter\_50:

(Start: 22 @44149 has 1 MA's), (Start: 24 @44137 has 2 MA's), (26, 44101), (Start: 28 @44095 has 2 MA's), (32, 44008), (34, 43990), (42, 43912), (48, 43861), (56, 43786),

Gene: StAB\_46 Start: 35820, Stop: 36344, Start Num: 20

Candidate Starts for StAB\_46:

(2, 35346), (Start: 15 @35793 has 6 MA's), (Start: 20 @35820 has 2 MA's), (56, 36168), (70, 36270), (73, 36297),

Gene: Stiles\_46 Start: 35275, Stop: 35799, Start Num: 20

Candidate Starts for Stiles\_46:

(2, 34801), (Start: 20 @35275 has 2 MA's), (56, 35623), (70, 35725),

Gene: Wrigley\_69 Start: 45475, Stop: 46062, Start Num: 10

Candidate Starts for Wrigley\_69:

(5, 45283), (6, 45415), (Start: 10 @45475 has 4 MA's), (14, 45535), (16, 45550), (23, 45580), (31, 45661), (36, 45769), (48, 45871), (49, 45874), (67, 46030),

Gene: Zemlya\_56 Start: 42043, Stop: 41525, Start Num: 15

Candidate Starts for Zemlya\_56:

(Start: 15 @42043 has 6 MA's), (37, 41836), (41, 41794), (46, 41746),