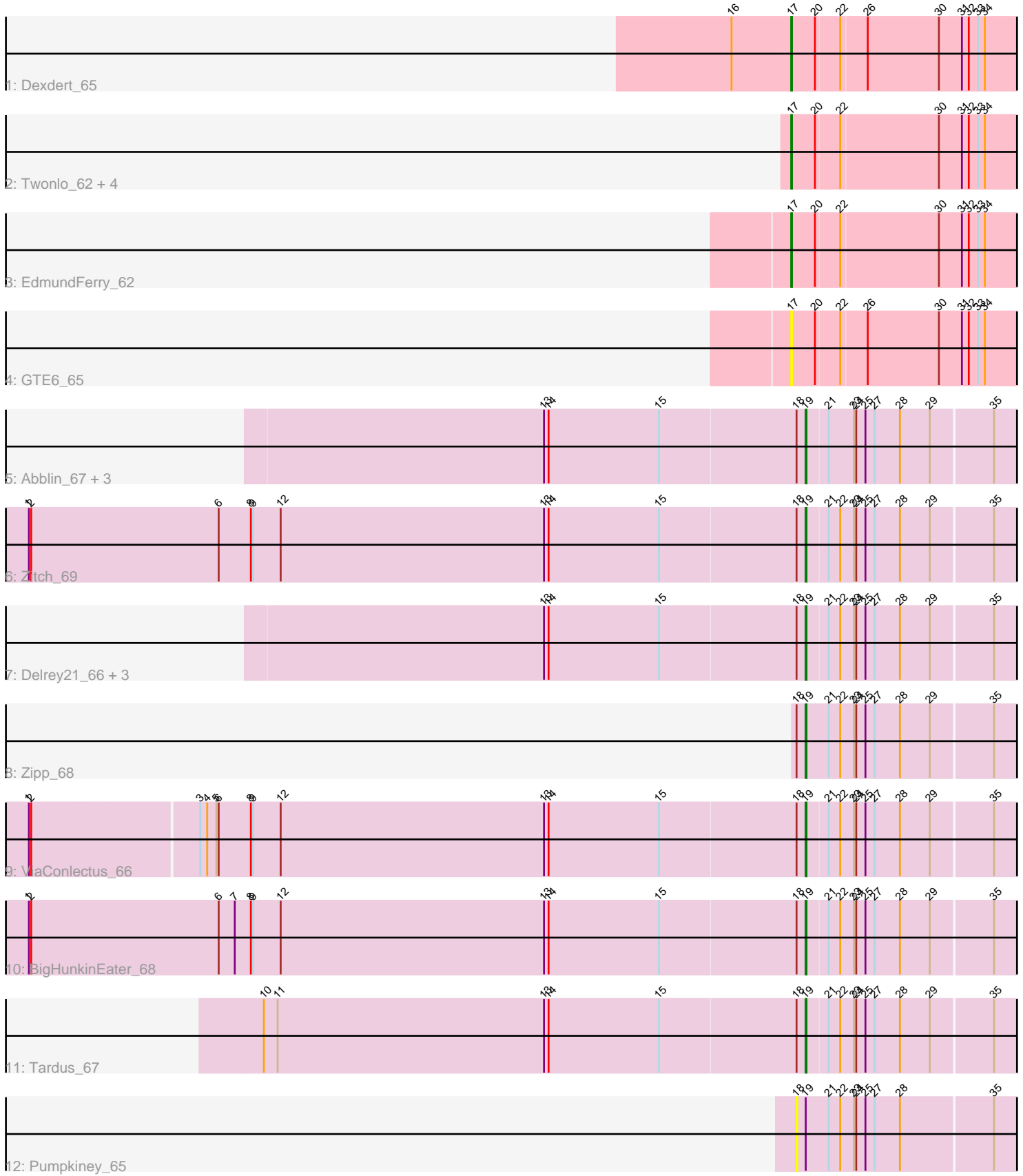


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Note: Tracks are now grouped by subcluster and scaled. Switching in subcluster is indicated by changes in track color. Track scale is now set by default to display the region 30 bp upstream of start 1 to 30 bp downstream of the last possible start. 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 309255 Report

This analysis was run 06/27/26 on database version 652.

Pham number 309255 has 22 members, 2 are drafts.

Phages represented in each track:

- Track 1 : Dexdert\_65
- Track 2 : Twonlo\_62, Tiamoceli\_63, Kwekel\_64, Chickadee\_64, RoadKill\_61
- Track 3 : EdmundFerry\_62
- Track 4 : GTE6\_65
- Track 5 : Abblin\_67, Scioto\_68, Sampson\_69, Natkenzie\_67
- Track 6 : Zitch\_69
- Track 7 : Delrey21\_66, Verity\_66, APunk\_67, DoctorFroggo\_66
- Track 8 : Zipp\_68
- Track 9 : ViaConlectus\_66
- Track 10 : BigHunkinEater\_68
- Track 11 : Tardus\_67
- Track 12 : Pumpkiney\_65

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

The start number called the most often in the published annotations is 19, it was called in 13 of the 20 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- APunk\_67, Abblin\_67, BigHunkinEater\_68, Delrey21\_66, DoctorFroggo\_66, Natkenzie\_67, Sampson\_69, Scioto\_68, Tardus\_67, Verity\_66, ViaConlectus\_66, Zipp\_68, Zitch\_69,

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

- Pumpkiney\_65,

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

- Chickadee\_64, Dexdert\_65, EdmundFerry\_62, GTE6\_65, Kwekel\_64, RoadKill\_61, Tiamoceli\_63, Twonlo\_62,

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

Start 17:

- Found in 8 of 22 ( 36.4% ) of genes in pham

- Manual Annotations of this start: 7 of 20
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Chickadee\_64 (DE3), Dextert\_65 (DE3), EdmundFerry\_62 (DE3), GTE6\_65 (DE3), Kwekel\_64 (DE3), RoadKill\_61 (DE3), Tiamoceli\_63 (DE3), Twonlo\_62 (DE3),

Start 18:

- Found in 14 of 22 ( 63.6% ) of genes in pham
- No Manual Annotations of this start.
- Called 7.1% of time when present
- Phage (with cluster) where this start called: Pumpkiney\_65 (DE4),

Start 19:

- Found in 14 of 22 ( 63.6% ) of genes in pham
- Manual Annotations of this start: 13 of 20
- Called 92.9% of time when present
- Phage (with cluster) where this start called: APunk\_67 (DE4), Abblin\_67 (DE4), BigHunkinEater\_68 (DE4), Delrey21\_66 (DE4), DoctorFroggo\_66 (DE4), Natkenzie\_67 (DE4), Sampson\_69 (DE4), Scioto\_68 (DE4), Tardus\_67 (DE4), Verity\_66 (DE4), ViaConlectus\_66 (DE4), Zipp\_68 (DE4), Zitch\_69 (DE4),

### Summary by clusters:

There are 2 clusters represented in this pham: DE3, DE4,

Info for manual annotations of cluster DE3:

- Start number 17 was manually annotated 7 times for cluster DE3.

Info for manual annotations of cluster DE4:

- Start number 19 was manually annotated 13 times for cluster DE4.

### Gene Information:

Gene: APunk\_67 Start: 50351, Stop: 50623, Start Num: 19

Candidate Starts for APunk\_67:

(13, 50012), (14, 50018), (15, 50162), (18, 50339), (Start: 19 @50351 has 13 MA's), (21, 50378), (22, 50393), (23, 50411), (24, 50414), (25, 50426), (27, 50438), (28, 50471), (29, 50510), (35, 50588),

Gene: Abblin\_67 Start: 50647, Stop: 50919, Start Num: 19

Candidate Starts for Abblin\_67:

(13, 50308), (14, 50314), (15, 50458), (18, 50635), (Start: 19 @50647 has 13 MA's), (21, 50674), (23, 50707), (24, 50710), (25, 50722), (27, 50734), (28, 50767), (29, 50806), (35, 50884),

Gene: BigHunkinEater\_68 Start: 49736, Stop: 50008, Start Num: 19

Candidate Starts for BigHunkinEater\_68:

(1, 48728), (2, 48731), (6, 48974), (7, 48995), (8, 49016), (9, 49019), (12, 49055), (13, 49397), (14, 49403), (15, 49547), (18, 49724), (Start: 19 @49736 has 13 MA's), (21, 49763), (22, 49778), (23, 49796), (24, 49799), (25, 49811), (27, 49823), (28, 49856), (29, 49895), (35, 49973),

Gene: Chickadee\_64 Start: 46632, Stop: 46940, Start Num: 17

Candidate Starts for Chickadee\_64:

(Start: 17 @46632 has 7 MA's), (20, 46662), (22, 46692), (30, 46818), (31, 46848), (32, 46857), (33, 46869), (34, 46878),

Gene: Delrey21\_66 Start: 51593, Stop: 51865, Start Num: 19

Candidate Starts for Delrey21\_66:

(13, 51254), (14, 51260), (15, 51404), (18, 51581), (Start: 19 @51593 has 13 MA's), (21, 51620), (22, 51635), (23, 51653), (24, 51656), (25, 51668), (27, 51680), (28, 51713), (29, 51752), (35, 51830),

Gene: Dexdert\_65 Start: 46792, Stop: 47106, Start Num: 17

Candidate Starts for Dexdert\_65:

(16, 46717), (Start: 17 @46792 has 7 MA's), (20, 46822), (22, 46852), (26, 46885), (30, 46978), (31, 47008), (32, 47017), (33, 47029), (34, 47038),

Gene: DoctorFroggo\_66 Start: 51593, Stop: 51865, Start Num: 19

Candidate Starts for DoctorFroggo\_66:

(13, 51254), (14, 51260), (15, 51404), (18, 51581), (Start: 19 @51593 has 13 MA's), (21, 51620), (22, 51635), (23, 51653), (24, 51656), (25, 51668), (27, 51680), (28, 51713), (29, 51752), (35, 51830),

Gene: EdmundFerry\_62 Start: 46207, Stop: 46515, Start Num: 17

Candidate Starts for EdmundFerry\_62:

(Start: 17 @46207 has 7 MA's), (20, 46237), (22, 46267), (30, 46393), (31, 46423), (32, 46432), (33, 46444), (34, 46453),

Gene: GTE6\_65 Start: 47434, Stop: 47742, Start Num: 17

Candidate Starts for GTE6\_65:

(Start: 17 @47434 has 7 MA's), (20, 47464), (22, 47494), (26, 47527), (30, 47620), (31, 47650), (32, 47659), (33, 47671), (34, 47680),

Gene: Kwekel\_64 Start: 46545, Stop: 46853, Start Num: 17

Candidate Starts for Kwekel\_64:

(Start: 17 @46545 has 7 MA's), (20, 46575), (22, 46605), (30, 46731), (31, 46761), (32, 46770), (33, 46782), (34, 46791),

Gene: Natkenzie\_67 Start: 50647, Stop: 50919, Start Num: 19

Candidate Starts for Natkenzie\_67:

(13, 50308), (14, 50314), (15, 50458), (18, 50635), (Start: 19 @50647 has 13 MA's), (21, 50674), (23, 50707), (24, 50710), (25, 50722), (27, 50734), (28, 50767), (29, 50806), (35, 50884),

Gene: Pumpkiney\_65 Start: 48809, Stop: 49096, Start Num: 18

Candidate Starts for Pumpkiney\_65:

(18, 48809), (Start: 19 @48821 has 13 MA's), (21, 48851), (22, 48866), (23, 48884), (24, 48887), (25, 48899), (27, 48911), (28, 48944), (35, 49061),

Gene: RoadKill\_61 Start: 46077, Stop: 46385, Start Num: 17

Candidate Starts for RoadKill\_61:

(Start: 17 @46077 has 7 MA's), (20, 46107), (22, 46137), (30, 46263), (31, 46293), (32, 46302), (33, 46314), (34, 46323),

Gene: Sampson\_69 Start: 50798, Stop: 51070, Start Num: 19

Candidate Starts for Sampson\_69:

(13, 50459), (14, 50465), (15, 50609), (18, 50786), (Start: 19 @50798 has 13 MA's), (21, 50825), (23, 50858), (24, 50861), (25, 50873), (27, 50885), (28, 50918), (29, 50957), (35, 51035),

Gene: Scioto\_68 Start: 50648, Stop: 50920, Start Num: 19

Candidate Starts for Scioto\_68:

(13, 50309), (14, 50315), (15, 50459), (18, 50636), (Start: 19 @50648 has 13 MA's), (21, 50675), (23, 50708), (24, 50711), (25, 50723), (27, 50735), (28, 50768), (29, 50807), (35, 50885),

Gene: Tardus\_67 Start: 50652, Stop: 50924, Start Num: 19

Candidate Starts for Tardus\_67:

(10, 49950), (11, 49965), (13, 50313), (14, 50319), (15, 50463), (18, 50640), (Start: 19 @50652 has 13 MA's), (21, 50679), (22, 50694), (23, 50712), (24, 50715), (25, 50727), (27, 50739), (28, 50772), (29, 50811), (35, 50889),

Gene: Tiamoceli\_63 Start: 47512, Stop: 47820, Start Num: 17

Candidate Starts for Tiamoceli\_63:

(Start: 17 @47512 has 7 MA's), (20, 47542), (22, 47572), (30, 47698), (31, 47728), (32, 47737), (33, 47749), (34, 47758),

Gene: Twonlo\_62 Start: 46610, Stop: 46918, Start Num: 17

Candidate Starts for Twonlo\_62:

(Start: 17 @46610 has 7 MA's), (20, 46640), (22, 46670), (30, 46796), (31, 46826), (32, 46835), (33, 46847), (34, 46856),

Gene: Verity\_66 Start: 51593, Stop: 51865, Start Num: 19

Candidate Starts for Verity\_66:

(13, 51254), (14, 51260), (15, 51404), (18, 51581), (Start: 19 @51593 has 13 MA's), (21, 51620), (22, 51635), (23, 51653), (24, 51656), (25, 51668), (27, 51680), (28, 51713), (29, 51752), (35, 51830),

Gene: ViaConlectus\_66 Start: 49158, Stop: 49430, Start Num: 19

Candidate Starts for ViaConlectus\_66:

(1, 48156), (2, 48159), (3, 48372), (4, 48381), (5, 48393), (6, 48396), (8, 48438), (9, 48441), (12, 48477), (13, 48819), (14, 48825), (15, 48969), (18, 49146), (Start: 19 @49158 has 13 MA's), (21, 49185), (22, 49200), (23, 49218), (24, 49221), (25, 49233), (27, 49245), (28, 49278), (29, 49317), (35, 49395),

Gene: Zipp\_68 Start: 51655, Stop: 51930, Start Num: 19

Candidate Starts for Zipp\_68:

(18, 51643), (Start: 19 @51655 has 13 MA's), (21, 51685), (22, 51700), (23, 51718), (24, 51721), (25, 51733), (27, 51745), (28, 51778), (29, 51817), (35, 51895),

Gene: Zitch\_69 Start: 49891, Stop: 50163, Start Num: 19

Candidate Starts for Zitch\_69:

(1, 48883), (2, 48886), (6, 49129), (8, 49171), (9, 49174), (12, 49210), (13, 49552), (14, 49558), (15, 49702), (18, 49879), (Start: 19 @49891 has 13 MA's), (21, 49918), (22, 49933), (23, 49951), (24, 49954), (25, 49966), (27, 49978), (28, 50011), (29, 50050), (35, 50128),