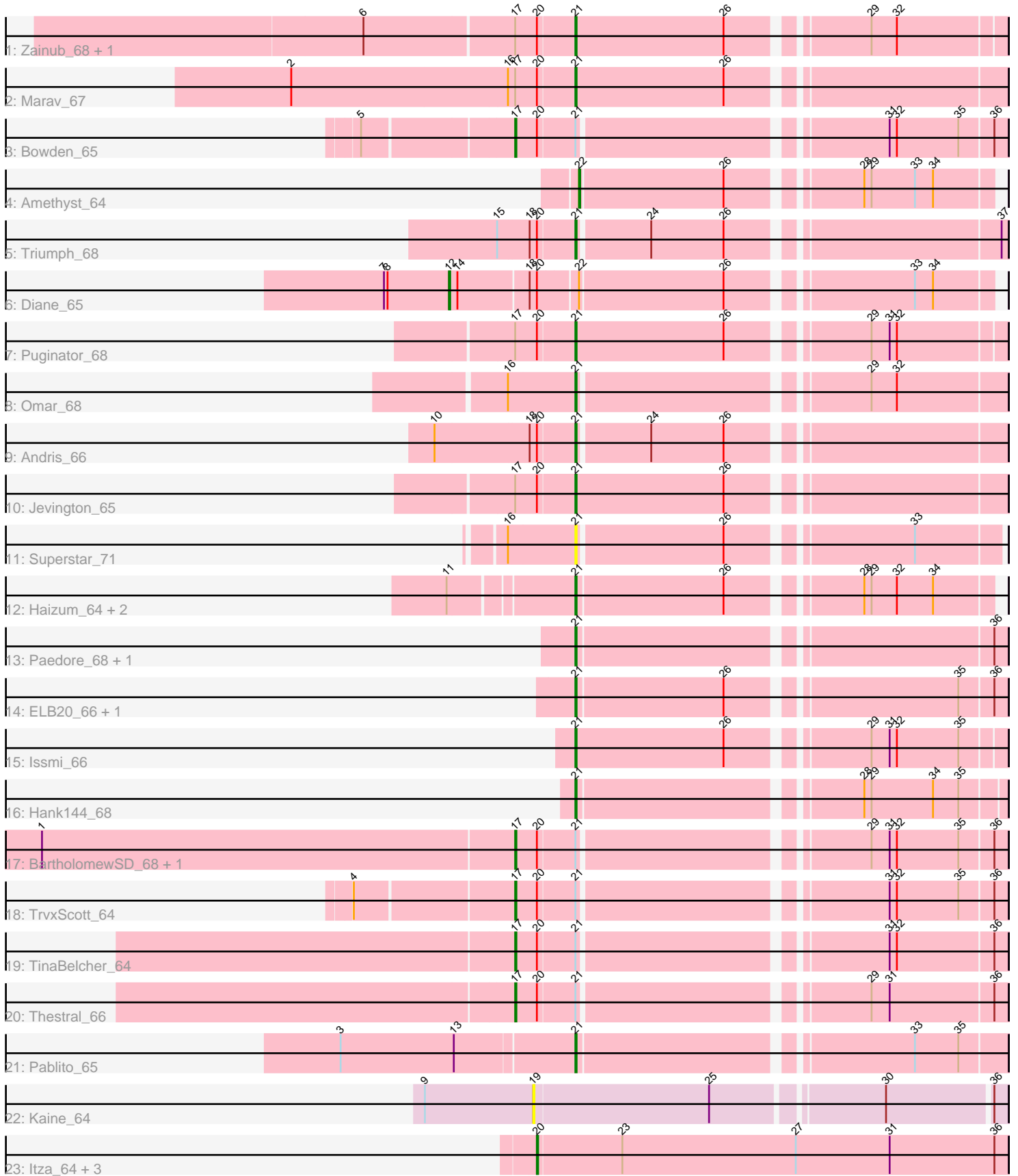


Pham 173073



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 173073 Report

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

Pham number 173073 has 32 members, 2 are drafts.

Phages represented in each track:

- Track 1 : Zainub\_68, Paolo\_68
- Track 2 : Marav\_67
- Track 3 : Bowden\_65
- Track 4 : Amethyst\_64
- Track 5 : Triumph\_68
- Track 6 : Diane\_65
- Track 7 : Puginator\_68
- Track 8 : Omar\_68
- Track 9 : Andris\_66
- Track 10 : Jevington\_65
- Track 11 : Superstar\_71
- Track 12 : Haizum\_64, Nishikigoi\_65, Tefunt\_64
- Track 13 : Paedore\_68, Loofah\_70
- Track 14 : ELB20\_66, R4\_67
- Track 15 : Issmi\_66
- Track 16 : Hank144\_68
- Track 17 : BartholomewSD\_68, Alvy\_68
- Track 18 : TrvxScott\_64
- Track 19 : TinaBelcher\_64
- Track 20 : Thestral\_66
- Track 21 : Pablito\_65
- Track 22 : Kaine\_64
- Track 23 : Itza\_64, Celia\_61, Urza\_63, VieEnRose\_63

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

The start number called the most often in the published annotations is 21, it was called in 18 of the 30 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Andris\_66, ELB20\_66, Haizum\_64, Hank144\_68, Issmi\_66, Jevington\_65, Loofah\_70, Marav\_67, Nishikigoi\_65, Omar\_68, Pablito\_65, Paedore\_68, Paolo\_68, Puginator\_68, R4\_67, Superstar\_71, Tefunt\_64, Triumph\_68, Zainub\_68,

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

- Alvy\_68, BartholomewSD\_68, Bowden\_65, Thestral\_66, TinaBelcher\_64, TrvxScott\_64,

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

- Amethyst\_64, Celia\_61, Diane\_65, Itza\_64, Kaine\_64, Urza\_63, VieEnRose\_63,

### Summary by start number:

Start 12:

- Found in 1 of 32 ( 3.1% ) of genes in pham
- Manual Annotations of this start: 1 of 30
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Diane\_65 (BD2),

Start 17:

- Found in 11 of 32 ( 34.4% ) of genes in pham
- Manual Annotations of this start: 6 of 30
- Called 54.5% of time when present
- Phage (with cluster) where this start called: Alvy\_68 (BD2), BartholomewSD\_68 (BD2), Bowden\_65 (BD2), Thestral\_66 (BD2), TinaBelcher\_64 (BD2), TrvxScott\_64 (BD2),

Start 19:

- 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: Kaine\_64 (BD3),

Start 20:

- Found in 18 of 32 ( 56.2% ) of genes in pham
- Manual Annotations of this start: 4 of 30
- Called 22.2% of time when present
- Phage (with cluster) where this start called: Celia\_61 (BD6), Itza\_64 (BD6), Urza\_63 (BD6), VieEnRose\_63 (BD6),

Start 21:

- Found in 25 of 32 ( 78.1% ) of genes in pham
- Manual Annotations of this start: 18 of 30
- Called 76.0% of time when present
- Phage (with cluster) where this start called: Andris\_66 (BD2), ELB20\_66 (BD2), Haizum\_64 (BD2), Hank144\_68 (BD2), Issmi\_66 (BD2), Jevington\_65 (BD2), Loofah\_70 (BD2), Marav\_67 (BD2), Nishikigoi\_65 (BD2), Omar\_68 (BD2), Pablito\_65 (BD2), Paedore\_68 (BD2), Paolo\_68 (BD2), Puginator\_68 (BD2), R4\_67 (BD2), Superstar\_71 (BD2), Tefunt\_64 (BD2), Triumph\_68 (BD2), Zainub\_68 (BD2),

Start 22:

- Found in 2 of 32 ( 6.2% ) of genes in pham
- Manual Annotations of this start: 1 of 30
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Amethyst\_64 (BD2),

### Summary by clusters:

There are 3 clusters represented in this pham: BD6, BD3, BD2,

Info for manual annotations of cluster BD2:

- Start number 12 was manually annotated 1 time for cluster BD2.
- Start number 17 was manually annotated 6 times for cluster BD2.
- Start number 21 was manually annotated 18 times for cluster BD2.
- Start number 22 was manually annotated 1 time for cluster BD2.

Info for manual annotations of cluster BD6:

- Start number 20 was manually annotated 4 times for cluster BD6.

### **Gene Information:**

Gene: Alvy\_68 Start: 44677, Stop: 44300, Start Num: 17

Candidate Starts for Alvy\_68:

(1, 45064), (Start: 17 @44677 has 6 MA's), (Start: 20 @44659 has 4 MA's), (Start: 21 @44629 has 18 MA's), (29, 44410), (31, 44395), (32, 44389), (35, 44338), (36, 44311),

Gene: Amethyst\_64 Start: 42756, Stop: 42439, Start Num: 22

Candidate Starts for Amethyst\_64:

(Start: 22 @42756 has 1 MA's), (26, 42639), (28, 42543), (29, 42537), (33, 42501), (34, 42486),

Gene: Andris\_66 Start: 43606, Stop: 43277, Start Num: 21

Candidate Starts for Andris\_66:

(10, 43717), (18, 43642), (Start: 20 @43636 has 4 MA's), (Start: 21 @43606 has 18 MA's), (24, 43549), (26, 43489),

Gene: BartholomewSD\_68 Start: 43796, Stop: 43419, Start Num: 17

Candidate Starts for BartholomewSD\_68:

(1, 44183), (Start: 17 @43796 has 6 MA's), (Start: 20 @43778 has 4 MA's), (Start: 21 @43748 has 18 MA's), (29, 43529), (31, 43514), (32, 43508), (35, 43457), (36, 43430),

Gene: Bowden\_65 Start: 44593, Stop: 44216, Start Num: 17

Candidate Starts for Bowden\_65:

(5, 44710), (Start: 17 @44593 has 6 MA's), (Start: 20 @44575 has 4 MA's), (Start: 21 @44545 has 18 MA's), (31, 44311), (32, 44305), (35, 44254), (36, 44227),

Gene: Celia\_61 Start: 42610, Stop: 42221, Start Num: 20

Candidate Starts for Celia\_61:

(Start: 20 @42610 has 4 MA's), (23, 42541), (27, 42397), (31, 42319), (36, 42232),

Gene: Diane\_65 Start: 43941, Stop: 43525, Start Num: 12

Candidate Starts for Diane\_65:

(7, 43995), (8, 43992), (Start: 12 @43941 has 1 MA's), (14, 43935), (18, 43878), (Start: 20 @43872 has 4 MA's), (Start: 22 @43842 has 1 MA's), (26, 43725), (33, 43587), (34, 43572),

Gene: ELB20\_66 Start: 43968, Stop: 43636, Start Num: 21

Candidate Starts for ELB20\_66:

(Start: 21 @43968 has 18 MA's), (26, 43848), (35, 43674), (36, 43647),

Gene: Haizum\_64 Start: 43576, Stop: 43256, Start Num: 21

Candidate Starts for Haizum\_64:

(11, 43672), (Start: 21 @43576 has 18 MA's), (26, 43456), (28, 43360), (29, 43354), (32, 43333), (34, 43303),

Gene: Hank144\_68 Start: 44358, Stop: 44029, Start Num: 21

Candidate Starts for Hank144\_68:

(Start: 21 @44358 has 18 MA's), (28, 44142), (29, 44136), (34, 44085), (35, 44064),

Gene: Issmi\_66 Start: 43527, Stop: 43195, Start Num: 21

Candidate Starts for Issmi\_66:

(Start: 21 @43527 has 18 MA's), (26, 43404), (29, 43302), (31, 43287), (32, 43281), (35, 43230),

Gene: Itza\_64 Start: 42543, Stop: 42154, Start Num: 20

Candidate Starts for Itza\_64:

(Start: 20 @42543 has 4 MA's), (23, 42474), (27, 42330), (31, 42252), (36, 42165),

Gene: Jevington\_65 Start: 42184, Stop: 41849, Start Num: 21

Candidate Starts for Jevington\_65:

(Start: 17 @42232 has 6 MA's), (Start: 20 @42214 has 4 MA's), (Start: 21 @42184 has 18 MA's), (26, 42061),

Gene: Kaine\_64 Start: 42778, Stop: 42407, Start Num: 19

Candidate Starts for Kaine\_64:

(9, 42868), (19, 42778), (25, 42634), (30, 42502), (36, 42418),

Gene: Loofah\_70 Start: 44815, Stop: 44483, Start Num: 21

Candidate Starts for Loofah\_70:

(Start: 21 @44815 has 18 MA's), (36, 44494),

Gene: Marav\_67 Start: 42707, Stop: 42372, Start Num: 21

Candidate Starts for Marav\_67:

(2, 42938), (16, 42761), (Start: 17 @42755 has 6 MA's), (Start: 20 @42737 has 4 MA's), (Start: 21 @42707 has 18 MA's), (26, 42584),

Gene: Nishikigoi\_65 Start: 43576, Stop: 43256, Start Num: 21

Candidate Starts for Nishikigoi\_65:

(11, 43672), (Start: 21 @43576 has 18 MA's), (26, 43456), (28, 43360), (29, 43354), (32, 43333), (34, 43303),

Gene: Omar\_68 Start: 41964, Stop: 41635, Start Num: 21

Candidate Starts for Omar\_68:

(16, 42018), (Start: 21 @41964 has 18 MA's), (29, 41745), (32, 41724),

Gene: Pablito\_65 Start: 42979, Stop: 42647, Start Num: 21

Candidate Starts for Pablito\_65:

(3, 43168), (13, 43075), (Start: 21 @42979 has 18 MA's), (33, 42721), (35, 42685),

Gene: Paedore\_68 Start: 44372, Stop: 44040, Start Num: 21

Candidate Starts for Paedore\_68:

(Start: 21 @44372 has 18 MA's), (36, 44051),

Gene: Paolo\_68 Start: 43869, Stop: 43537, Start Num: 21

Candidate Starts for Paolo\_68:

(6, 44037), (Start: 17 @43917 has 6 MA's), (Start: 20 @43899 has 4 MA's), (Start: 21 @43869 has 18 MA's), (26, 43746), (29, 43644), (32, 43623),

Gene: Puginator\_68 Start: 43918, Stop: 43586, Start Num: 21

Candidate Starts for Puginator\_68:

(Start: 17 @43966 has 6 MA's), (Start: 20 @43948 has 4 MA's), (Start: 21 @43918 has 18 MA's), (26, 43795), (29, 43693), (31, 43678), (32, 43672),

Gene: R4\_67 Start: 44128, Stop: 43796, Start Num: 21

Candidate Starts for R4\_67:

(Start: 21 @44128 has 18 MA's), (26, 44008), (35, 43834), (36, 43807),

Gene: Superstar\_71 Start: 43753, Stop: 43430, Start Num: 21

Candidate Starts for Superstar\_71:

(16, 43807), (Start: 21 @43753 has 18 MA's), (26, 43636), (33, 43498),

Gene: Tefunt\_64 Start: 43490, Stop: 43170, Start Num: 21

Candidate Starts for Tefunt\_64:

(11, 43586), (Start: 21 @43490 has 18 MA's), (26, 43370), (28, 43274), (29, 43268), (32, 43247), (34, 43217),

Gene: Thestral\_66 Start: 44337, Stop: 43960, Start Num: 17

Candidate Starts for Thestral\_66:

(Start: 17 @44337 has 6 MA's), (Start: 20 @44319 has 4 MA's), (Start: 21 @44289 has 18 MA's), (29, 44070), (31, 44055), (36, 43971),

Gene: TinaBelcher\_64 Start: 44204, Stop: 43827, Start Num: 17

Candidate Starts for TinaBelcher\_64:

(Start: 17 @44204 has 6 MA's), (Start: 20 @44186 has 4 MA's), (Start: 21 @44156 has 18 MA's), (31, 43922), (32, 43916), (36, 43838),

Gene: Triumph\_68 Start: 44087, Stop: 43758, Start Num: 21

Candidate Starts for Triumph\_68:

(15, 44147), (18, 44123), (Start: 20 @44117 has 4 MA's), (Start: 21 @44087 has 18 MA's), (24, 44030), (26, 43970), (37, 43763),

Gene: TrvxScott\_64 Start: 44587, Stop: 44210, Start Num: 17

Candidate Starts for TrvxScott\_64:

(4, 44710), (Start: 17 @44587 has 6 MA's), (Start: 20 @44569 has 4 MA's), (Start: 21 @44539 has 18 MA's), (31, 44305), (32, 44299), (35, 44248), (36, 44221),

Gene: Urza\_63 Start: 42564, Stop: 42175, Start Num: 20

Candidate Starts for Urza\_63:

(Start: 20 @42564 has 4 MA's), (23, 42495), (27, 42351), (31, 42273), (36, 42186),

Gene: VieEnRose\_63 Start: 42430, Stop: 42041, Start Num: 20

Candidate Starts for VieEnRose\_63:

(Start: 20 @42430 has 4 MA's), (23, 42361), (27, 42217), (31, 42139), (36, 42052),

Gene: Zainub\_68 Start: 43844, Stop: 43512, Start Num: 21

Candidate Starts for Zainub\_68:

(6, 44012), (Start: 17 @43892 has 6 MA's), (Start: 20 @43874 has 4 MA's), (Start: 21 @43844 has 18 MA's), (26, 43721), (29, 43619), (32, 43598),