

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 86613 Report

This analysis was run 04/05/24 on database version 557.

Pham number 86613 has 23 members, 7 are drafts.

Phages represented in each track:

- Track 1 : Pupper\_216
- Track 2 : Aloki\_9, Pakusa\_9, Chidiebere\_9, Kabocha\_9, Hanem\_9, Schomber\_9
- Track 3 : Oogie\_9
- Track 4 : Gray\_9
- Track 5 : ChisanaKitsune\_8
- Track 6 : Fresco\_65, Shatter\_65
- Track 7: MakoManhole 64, AnarQue 68, Wooper 67, MossRose 66
- Track 8 : Mariokart 61
- Track 9 : Axumite\_65, Ligma\_65
- Track 10 : CloverMinnie 65, CaiB 66
- Track 11 : NHagos\_63
- Track 12 : CharlottesWeb 61

# 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 6 of the 16 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

 Aloki\_9, Chidiebere\_9, ChisanaKitsune\_8, Gray\_9, Hanem\_9, Kabocha\_9, Oogie\_9, Pakusa\_9, Schomber\_9,

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

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

• AnarQue\_68, Axumite\_65, CaiB\_66, CharlottesWeb\_61, CloverMinnie\_65, Fresco\_65, Ligma\_65, MakoManhole\_64, Mariokart\_61, MossRose\_66, NHagos\_63, Pupper\_216, Shatter\_65, Wooper\_67,

## Summary by start number:

#### Start 15:

• Found in 1 of 23 (4.3%) of genes in pham

- Manual Annotations of this start: 1 of 16
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Pupper\_216 (DO),

#### Start 16:

- Found in 1 of 23 (4.3%) of genes in pham
- Manual Annotations of this start: 1 of 16
- Called 100.0% of time when present
- Phage (with cluster) where this start called: NHagos\_63 (DR),

### Start 19:

- Found in 6 of 23 (26.1%) of genes in pham
- Manual Annotations of this start: 2 of 16
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Axumite\_65 (DR), Ligma\_65 (DR),

#### Start 20:

- Found in 12 of 23 (52.2%) of genes in pham
- Manual Annotation's of this start: 6 of 16
- Called 83.3% of time when present
- Phage (with cluster) where this start called: AnarQue\_68 (DR), CaiB\_66 (DR),
  CharlottesWeb\_61 (DR), CloverMinnie\_65 (DR), Fresco\_65 (DR), MakoManhole\_64 (DR),
  Mariokart\_61 (DR), MossRose\_66 (DR), Shatter\_65 (DR), Wooper\_67 (DR),

#### Start 21:

- Found in 9 of 23 (39.1%) of genes in pham
- Manual Annotations of this start: 6 of 16
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Aloki\_9 (DQ), Chidiebere\_9 (DQ), ChisanaKitsune\_8 (DQ), Gray\_9 (DQ), Hanem\_9 (DQ), Kabocha\_9 (DQ), Oogie\_9 (DQ), Pakusa 9 (DQ), Schomber 9 (DQ),

#### Summary by clusters:

There are 3 clusters represented in this pham: DO, DR, DQ,

Info for manual annotations of cluster DO:

•Start number 15 was manually annotated 1 time for cluster DO.

Info for manual annotations of cluster DQ:

•Start number 21 was manually annotated 6 times for cluster DQ.

### Info for manual annotations of cluster DR:

- •Start number 16 was manually annotated 1 time for cluster DR.
- •Start number 19 was manually annotated 2 times for cluster DR.
- •Start number 20 was manually annotated 6 times for cluster DR.

### Gene Information:

Gene: Aloki\_9 Start: 4234, Stop: 4443, Start Num: 21 Candidate Starts for Aloki\_9:

(Start: 21 @4234 has 6 MA's), (25, 4297), (31, 4354), (37, 4432), (38, 4438),

Gene: AnarQue\_68 Start: 53771, Stop: 53980, Start Num: 20

Candidate Starts for AnarQue\_68:

(Start: 20 @53771 has 6 MA's), (22, 53795), (25, 53834), (26, 53840), (29, 53873),

Gene: Axumite\_65 Start: 51916, Stop: 52143, Start Num: 19

Candidate Starts for Axumite 65:

(Start: 19 @51916 has 2 MA's), (Start: 20 @51931 has 6 MA's), (23, 51985), (33, 52081),

Gene: CaiB\_66 Start: 53570, Stop: 53779, Start Num: 20

Candidate Starts for CaiB 66:

(13, 53522), (Start: 20 @53570 has 6 MA's), (22, 53594), (25, 53633), (26, 53639), (29, 53672),

Gene: CharlottesWeb\_61 Start: 50542, Stop: 50754, Start Num: 20

Candidate Starts for CharlottesWeb\_61:

(17, 50512), (Start: 19 @50524 has 2 MA's), (Start: 20 @50542 has 6 MA's), (22, 50569), (23, 50596), (24, 50605), (26, 50614), (29, 50647), (33, 50692), (37, 50743),

Gene: Chidiebere\_9 Start: 4234, Stop: 4443, Start Num: 21

Candidate Starts for Chidiebere\_9:

(Start: 21 @4234 has 6 MA's), (25, 4297), (31, 4354), (37, 4432), (38, 4438),

Gene: ChisanaKitsune\_8 Start: 3820, Stop: 4029, Start Num: 21

Candidate Starts for ChisanaKitsune 8:

(1, 3319), (2, 3337), (3, 3361), (4, 3409), (5, 3424), (6, 3499), (7, 3541), (8, 3577), (9, 3631), (10, 3721), (11, 3730), (12, 3763), (14, 3769), (Start: 21 @3820 has 6 MA's), (25, 3883), (31, 3940), (37, 4018), (38, 4024),

Gene: CloverMinnie\_65 Start: 52733, Stop: 52942, Start Num: 20

Candidate Starts for CloverMinnie\_65:

(13, 52685), (Start: 20 @52733 has 6 MA's), (22, 52757), (25, 52796), (26, 52802), (29, 52835),

Gene: Fresco 65 Start: 51937, Stop: 52149, Start Num: 20

Candidate Starts for Fresco\_65:

(Start: 19 @51922 has 2 MA's), (Start: 20 @51937 has 6 MA's), (23, 51991), (33, 52087),

Gene: Gray\_9 Start: 4234, Stop: 4443, Start Num: 21

Candidate Starts for Gray\_9:

(Start: 21 @4234 has 6 MA's), (27, 4312), (30, 4342), (31, 4354), (37, 4432), (38, 4438),

Gene: Hanem\_9 Start: 4234, Stop: 4443, Start Num: 21

Candidate Starts for Hanem 9:

(Start: 21 @4234 has 6 MA's), (25, 4297), (31, 4354), (37, 4432), (38, 4438),

Gene: Kabocha\_9 Start: 4234, Stop: 4443, Start Num: 21

Candidate Starts for Kabocha\_9:

(Start: 21 @4234 has 6 MA's), (25, 4297), (31, 4354), (37, 4432), (38, 4438),

Gene: Ligma 65 Start: 51916, Stop: 52143, Start Num: 19

Candidate Starts for Ligma\_65:

(Start: 19 @51916 has 2 MA's), (Start: 20 @51931 has 6 MA's), (23, 51985), (33, 52081),

Gene: MakoManhole\_64 Start: 52073, Stop: 52282, Start Num: 20

Candidate Starts for MakoManhole\_64:

(Start: 20 @52073 has 6 MA's), (22, 52097), (25, 52136), (26, 52142), (29, 52175),

Gene: Mariokart\_61 Start: 50827, Stop: 51039, Start Num: 20

Candidate Starts for Mariokart 61:

(17, 50797), (Start: 19 @50809 has 2 MA's), (Start: 20 @50827 has 6 MA's), (22, 50854), (23, 50881),

(24, 50890), (26, 50899), (29, 50932), (33, 50977), (36, 51025), (37, 51028),

Gene: MossRose\_66 Start: 53033, Stop: 53242, Start Num: 20

Candidate Starts for MossRose 66:

(Start: 20 @53033 has 6 MA's), (22, 53057), (25, 53096), (26, 53102), (29, 53135),

Gene: NHagos\_63 Start: 51517, Stop: 51741, Start Num: 16

Candidate Starts for NHagos\_63:

(Start: 16 @51517 has 1 MA's), (30, 51640), (37, 51730),

Gene: Oogie\_9 Start: 3975, Stop: 4184, Start Num: 21

Candidate Starts for Oogie 9:

(Start: 21 @3975 has 6 MA's), (27, 4053), (31, 4095), (37, 4173), (38, 4179),

Gene: Pakusa 9 Start: 3976, Stop: 4185, Start Num: 21

Candidate Starts for Pakusa 9:

(Start: 21 @3976 has 6 MA's), (25, 4039), (31, 4096), (37, 4174), (38, 4180),

Gene: Pupper\_216 Start: 144564, Stop: 144788, Start Num: 15

Candidate Starts for Pupper\_216:

(Start: 15 @144564 has 1 MA's), (18, 144576), (28, 144681), (32, 144720), (34, 144744), (35, 144720)

144762),

Gene: Schomber\_9 Start: 4234, Stop: 4443, Start Num: 21

Candidate Starts for Schomber 9:

(Start: 21 @4234 has 6 MA's), (25, 4297), (31, 4354), (37, 4432), (38, 4438),

Gene: Shatter\_65 Start: 51931, Stop: 52143, Start Num: 20

Candidate Starts for Shatter\_65:

(Start: 19 @51916 has 2 MA's), (Start: 20 @51931 has 6 MA's), (23, 51985), (33, 52081),

Gene: Wooper\_67 Start: 53104, Stop: 53313, Start Num: 20

Candidate Starts for Wooper\_67:

(Start: 20 @53104 has 6 MA's), (22, 53128), (25, 53167), (26, 53173), (29, 53206),