

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 106670 Report

This analysis was run 04/28/24 on database version 559.

Pham number 106670 has 15 members, 1 are drafts.

Phages represented in each track:

- Track 1: Nason 2, Arcadia 2, Elsa 2
- Track 2 : Hyperion\_20, Mashley\_19
- Track 3: Fransoyer\_23, RubyRalph\_23, SadLad\_24
- Track 4 : Tissue 21
- Track 5 : Dewdrop\_57, Leaf\_57
- Track 6 : PauloDiaboli\_185, A3Wally\_186
- Track 7: Big4 175
- Track 8 : Pumpernickel\_177

# 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 3 of the 14 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

• A3Wally\_186, Big4\_175, PauloDiaboli\_185,

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

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

Arcadia\_2, Dewdrop\_57, Elsa\_2, Fransoyer\_23, Hyperion\_20, Leaf\_57,
Mashley\_19, Nason\_2, Pumpernickel\_177, RubyRalph\_23, SadLad\_24, Tissue\_21,

### Summary by start number:

#### Start 1:

- Found in 2 of 15 (13.3%) of genes in pham
- Manual Annotations of this start: 2 of 14
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Hyperion\_20 (EG), Mashley\_19 (EG),

#### Start 5:

• Found in 3 of 15 (20.0%) of genes in pham

- Manual Annotations of this start: 3 of 14
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Fransoyer\_23 (EG), RubyRalph\_23 (EG), SadLad\_24 (EG),

#### Start 6:

- Found in 9 of 15 (60.0%) of genes in pham
- Manual Annotations of this start: 3 of 14
- Called 44.4% of time when present
- Phage (with cluster) where this start called: Dewdrop\_57 (GC), Leaf\_57 (GC), Pumpernickel\_177 (GD4), Tissue\_21 (EG),

#### Start 9:

- Found in 3 of 15 (20.0%) of genes in pham
- Manual Annotations of this start: 3 of 14
- Called 100.0% of time when present
- Phage (with cluster) where this start called: A3Wally\_186 (GD1), Big4\_175 (GD2), PauloDiaboli\_185 (GD1),

### Start 12:

- Found in 3 of 15 (20.0%) of genes in pham
- Manual Annotations of this start: 3 of 14
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Arcadia\_2 (AM), Elsa\_2 (AM), Nason\_2 (AM),

# **Summary by clusters:**

There are 6 clusters represented in this pham: GD1, GD2, GD4, EG, AM, GC,

Info for manual annotations of cluster AM:

•Start number 12 was manually annotated 3 times for cluster AM.

Info for manual annotations of cluster EG:

- •Start number 1 was manually annotated 2 times for cluster EG.
- •Start number 5 was manually annotated 3 times for cluster EG.

Info for manual annotations of cluster GC:

•Start number 6 was manually annotated 2 times for cluster GC.

Info for manual annotations of cluster GD1:

•Start number 9 was manually annotated 2 times for cluster GD1.

Info for manual annotations of cluster GD2:

•Start number 9 was manually annotated 1 time for cluster GD2.

Info for manual annotations of cluster GD4:

•Start number 6 was manually annotated 1 time for cluster GD4.

### Gene Information:

Gene: A3Wally\_186 Start: 101532, Stop: 101870, Start Num: 9

Candidate Starts for A3Wally\_186:

(Start: 9 @101532 has 3 MA's), (26, 101691), (35, 101817),

Gene: Arcadia\_2 Start: 525, Stop: 869, Start Num: 12

Candidate Starts for Arcadia 2:

(7, 486), (11, 522), (Start: 12 @525 has 3 MA's), (17, 591), (28, 702), (29, 714), (30, 750),

Gene: Big4\_175 Start: 98404, Stop: 98742, Start Num: 9

Candidate Starts for Big4 175:

(7, 98389), (Start: 9 @ 98404 has 3 MA's), (23, 98530), (25, 98554), (35, 98689),

Gene: Dewdrop\_57 Start: 24658, Stop: 25071, Start Num: 6

Candidate Starts for Dewdrop\_57:

(Start: 6 @24658 has 3 MA's), (14, 24715), (20, 24799), (24, 24850), (26, 24877), (32, 24967), (33, 24979), (34, 24991),

Gene: Elsa\_2 Start: 525, Stop: 869, Start Num: 12

Candidate Starts for Elsa 2:

(7, 486), (11, 522), (Start: 12 @525 has 3 MA's), (17, 591), (28, 702), (29, 714), (30, 750),

Gene: Fransoyer\_23 Start: 8495, Stop: 8893, Start Num: 5

Candidate Starts for Fransoyer\_23:

(Start: 5 @8495 has 3 MA's), (Start: 6 @8510 has 3 MA's), (13, 8561), (15, 8576), (16, 8606), (19, 8627), (21, 8669), (22, 8675), (26, 8717), (35, 8840),

Gene: Hyperion\_20 Start: 8194, Stop: 8652, Start Num: 1

Candidate Starts for Hyperion 20:

(Start: 1 @8194 has 2 MA's), (2, 8227), (Start: 6 @8272 has 3 MA's), (8, 8287), (15, 8338), (24, 8452), (26, 8476), (27, 8482), (31, 8539), (36, 8632),

Gene: Leaf\_57 Start: 24658, Stop: 25071, Start Num: 6

Candidate Starts for Leaf 57:

(Start: 6 @24658 has 3 MA's), (14, 24715), (20, 24799), (24, 24850), (26, 24877), (32, 24967), (33, 24979), (34, 24991),

Gene: Mashley\_19 Start: 8005, Stop: 8463, Start Num: 1

Candidate Starts for Mashley\_19:

(Start: 1 @8005 has 2 MA's), (2, 8038), (Start: 6 @8083 has 3 MA's), (8, 8098), (15, 8149), (24, 8263), (26, 8287), (27, 8293), (31, 8350), (36, 8443),

Gene: Nason\_2 Start: 525, Stop: 869, Start Num: 12

Candidate Starts for Nason 2:

(7, 486), (11, 522), (Start: 12 @525 has 3 MA's), (17, 591), (28, 702), (29, 714), (30, 750),

Gene: PauloDiaboli 185 Start: 99579, Stop: 99917, Start Num: 9

Candidate Starts for PauloDiaboli\_185:

(Start: 9 @ 99579 has 3 MA's), (26, 99738), (35, 99864),

Gene: Pumpernickel 177 Start: 101023, Stop: 101388, Start Num: 6

Candidate Starts for Pumpernickel\_177:

(Start: 6 @ 101023 has 3 MA's), (10, 101053), (18, 101113), (24, 101179), (27, 101212),

Gene: RubyRalph\_23 Start: 8429, Stop: 8827, Start Num: 5

Candidate Starts for RubyRalph\_23:

(Start: 5 @8429 has 3 MA's), (Start: 6 @8444 has 3 MA's), (13, 8495), (15, 8510), (16, 8540), (19, 8561), (21, 8603), (22, 8609), (26, 8651), (35, 8774),

Gene: SadLad 24 Start: 8886, Stop: 9284, Start Num: 5

Candidate Starts for SadLad\_24:

(Start: 5 @8886 has 3 MA's), (Start: 6 @8901 has 3 MA's), (13, 8952), (15, 8967), (16, 8997), (19, 9018), (21, 9060), (22, 9066), (26, 9108), (35, 9231),

Gene: Tissue\_21 Start: 8398, Stop: 8778, Start Num: 6

Candidate Starts for Tissue\_21:

(3, 8371), (4, 8374), (Start: 6 @8398 has 3 MA's), (8, 8413), (13, 8449), (15, 8464), (24, 8578), (26, 8602), (27, 8608), (31, 8665), (36, 8758),