

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 197003 Report

This analysis was run 12/09/24 on database version 580.

Pham number 197003 has 12 members, 4 are drafts.

Phages represented in each track:

• Track 1: Weasels 2 67

Track 2 : Grayson\_68

Track 3 : Perégrin\_67

• Track 4 : Puppers\_21, Widow\_21

• Track 5 : Jflix2\_26

• Track 6 : REQ1\_83

Track 7: E3 gp98

Track 8 : ChewyVIII\_62

• Track 9 : GMA1\_20

Track 10 : Mbo2\_26

Track 11 : Reynauld\_34

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

The start number called the most often in the published annotations is 6, it was called in 3 of the 8 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

ChewyVIII\_62, Jflix2\_26, REQ1\_83, Reynauld\_34,

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

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

• E3\_gp98, GMA1\_20, Grayson\_68, Mbo2\_26, Peregrin\_67, Puppers\_21, Weasels2\_67, Widow\_21,

## Summary by start number:

### Start 2:

- Found in 4 of 12 (33.3%) of genes in pham
- Manual Annotations of this start: 3 of 8
- Called 100.0% of time when present

• Phage (with cluster) where this start called: E3\_gp98 (singleton), Grayson\_68 (CB), Peregrin\_67 (CB), Weasels2\_67 (CB),

### Start 3:

- Found in 2 of 12 (16.7%) of genes in pham
- Manual Annotations of this start: 2 of 8
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Puppers\_21 (CD), Widow\_21 (CD),

# Start 4:

- Found in 1 of 12 (8.3%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: GMA1\_20 (singleton),

#### Start 5:

- Found in 3 of 12 (25.0%) of genes in pham
- No Manual Annotations of this start.
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Mbo2\_26 (singleton),

#### Start 6:

- Found in 4 of 12 (33.3%) of genes in pham
- Manual Annotations of this start: 3 of 8
- Called 100.0% of time when present
- Phage (with cluster) where this start called: ChewyVIII\_62 (singleton), Jflix2\_26 (CF), REQ1\_83 (CF), Reynauld\_34 (singleton),

# Summary by clusters:

There are 4 clusters represented in this pham: CB, singleton, CF, CD,

Info for manual annotations of cluster CB:

•Start number 2 was manually annotated 3 times for cluster CB.

Info for manual annotations of cluster CD:

•Start number 3 was manually annotated 2 times for cluster CD.

Info for manual annotations of cluster CF:

Start number 6 was manually annotated 1 time for cluster CF.

## Gene Information:

Gene: ChewyVIII\_62 Start: 43758, Stop: 44864, Start Num: 6

Candidate Starts for ChewyVIII\_62:

(5, 43755), (Start: 6 @43758 has 3 MA's), (10, 43887), (13, 43917), (14, 43935), (16, 43944), (25, 44094), (26, 44133), (36, 44271), (43, 44424), (46, 44448), (56, 44559), (63, 44670), (64, 44733), (71, 44805),

Gene: E3\_gp98 Start: 56068, Stop: 57180, Start Num: 2

Candidate Starts for E3\_gp98:

(1, 56041), (Start: 2 @56068 has 3 MA's), (9, 56158), (14, 56263), (18, 56302), (51, 56809), (61, 56965), (68, 57070),

Gene: GMA1\_20 Start: 17561, Stop: 18616, Start Num: 4

Candidate Starts for GMA1\_20:

(4, 17561), (8, 17633), (17, 17759), (18, 17786), (22, 17870), (29, 18005), (34, 18059), (41, 18122), (42, 18125), (50, 18287), (52, 18296), (54, 18344), (58, 18371), (61, 18434), (62, 18443), (67, 18533), (72, 18584), (73, 18605),

Gene: Grayson 68 Start: 28644, Stop: 30044, Start Num: 2

Candidate Starts for Grayson 68:

(Start: 2 @28644 has 3 MA's), (12, 28821), (21, 28965), (23, 28974), (24, 28986), (27, 29043), (34, 29148), (35, 29157), (37, 29181), (45, 29331), (47, 29367), (50, 29379), (57, 29451), (65, 29613), (75, 29934), (76, 29937), (77, 29955),

Gene: Jflix2\_26 Start: 25867, Stop: 26955, Start Num: 6

Candidate Starts for Jflix2 26:

(Start: 6 @25867 has 3 MA's), (18, 26083), (20, 26140), (37, 26383), (41, 26422), (53, 26608), (66, 26845).

Gene: Mbo2\_26 Start: 27781, Stop: 28878, Start Num: 5

Candidate Starts for Mbo2 26:

(5, 27781), (9, 27856), (10, 27913), (11, 27928), (17, 27973), (19, 28033), (20, 28057), (28, 28174), (30, 28219), (33, 28249), (38, 28315), (44, 28444), (59, 28597), (61, 28666), (65, 28750),

Gene: Peregrin\_67 Start: 28158, Stop: 29555, Start Num: 2

Candidate Starts for Peregrin\_67:

(Start: 2 @28158 has 3 MA's), (12, 28335), (21, 28479), (23, 28488), (24, 28500), (27, 28557), (34, 28662), (35, 28671), (37, 28695), (45, 28845), (47, 28881), (50, 28893), (57, 28965), (65, 29127), (69, 29154), (75, 29448),

Gene: Puppers\_21 Start: 17502, Stop: 18587, Start Num: 3

Candidate Starts for Puppers\_21:

(Start: 3 @17502 has 2 MA's), (7, 17538), (15, 17691), (16, 17697), (17, 17700), (18, 17727), (20, 17784), (25, 17847), (26, 17883), (29, 17943), (32, 17961), (39, 18048), (40, 18054), (42, 18063), (48, 18234), (55, 18309), (70, 18525), (74, 18579),

Gene: REQ1\_83 Start: 49534, Stop: 50622, Start Num: 6

Candidate Starts for REQ1\_83:

(Start: 6 @ 49534 has 3 MA's), (16, 49720), (18, 49750), (20, 49807), (37, 50050), (60, 50356),

Gene: Reynauld\_34 Start: 35895, Stop: 36983, Start Num: 6

Candidate Starts for Reynauld 34:

(5, 35892), (Start: 6 @35895 has 3 MA's), (11, 36039), (22, 36195), (31, 36333), (49, 36615), (60, 36723), (67, 36879),

Gene: Weasels2\_67 Start: 28157, Stop: 29557, Start Num: 2

Candidate Starts for Weasels2\_67:

(Start: 2 @28157 has 3 MA's), (12, 28334), (21, 28478), (23, 28487), (24, 28499), (27, 28556), (35, 28670), (37, 28694), (45, 28844), (47, 28880), (50, 28892), (76, 29450),

Gene: Widow 21 Start: 17493, Stop: 18578, Start Num: 3

Candidate Starts for Widow\_21:

 $\begin{array}{l} \text{(Start: 3 @ 17493 has 2 MA's), (7, 17529), (15, 17682), (16, 17688), (17, 17691), (18, 17718), (20, 17775), (25, 17838), (26, 17874), (29, 17934), (32, 17952), (39, 18039), (40, 18045), (42, 18054), (48, 18225), (55, 18300), (70, 18516), (74, 18570), } \end{array}$