

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 173286 Report

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

Pham number 173286 has 16 members, 2 are drafts.

Phages represented in each track:

- Track 1: Fresco 54, Shatter 54, Ligma 54, Axumite 54
- Track 2 : CloverMinnie 56, AnarQue 57
- Track 3 : CaiB\_57
- Track 4 : Wooper\_57
- Track 5: MakoManhole 54, MossRose 56
- Track 6 : BobRoss2024\_56
- Track 7: Cafasso 80
- Track 8 : Morgana\_85
- Track 9 : ObLaDi\_80, Aleemily\_79
- Track 10 : ModicumRichard 80

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

The start number called the most often in the published annotations is 10, it was called in 7 of the 14 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

• AnarQue\_57, Cafasso\_80, CaiB\_57, CloverMinnie\_56, MakoManhole\_54, ModicumRichard\_80, MossRose\_56, Wooper\_57,

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

Aleemily\_79, Morgana\_85, ObLaDi\_80,

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

Axumite\_54, BobRoss2024\_56, Fresco\_54, Ligma\_54, Shatter\_54,

## Summary by start number:

### Start 8:

- Found in 5 of 16 (31.2%) of genes in pham
- Manual Annotations of this start: 3 of 14
- Called 60.0% of time when present
- Phage (with cluster) where this start called: Aleemily\_79 (DZ), Morgana\_85 (DZ), ObLaDi 80 (DZ).

#### Start 10:

- Found in 11 of 16 (68.8%) of genes in pham
- Manual Annotations of this start: 7 of 14
- Called 72.7% of time when present
- Phage (with cluster) where this start called: AnarQue\_57 (DR), Cafasso\_80 (DZ),
  CaiB\_57 (DR), CloverMinnie\_56 (DR), MakoManhole\_54 (DR), ModicumRichard\_80 (DZ), MossRose\_56 (DR), Wooper\_57 (DR),

## Start 11:

- Found in 1 of 16 (6.2%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BobRoss2024\_56 (DR),

#### Start 12:

- Found in 4 of 16 (25.0%) of genes in pham
- Manual Annotations of this start: 4 of 14
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Axumite\_54 (DR), Fresco\_54 (DR), Ligma\_54 (DR), Shatter\_54 (DR),

## Summary by clusters:

There are 2 clusters represented in this pham: DZ, DR,

Info for manual annotations of cluster DR:

- •Start number 10 was manually annotated 6 times for cluster DR.
- •Start number 12 was manually annotated 4 times for cluster DR.

Info for manual annotations of cluster DZ:

- •Start number 8 was manually annotated 3 times for cluster DZ.
- Start number 10 was manually annotated 1 time for cluster DZ.

### Gene Information:

Gene: Aleemily\_79 Start: 49912, Stop: 50247, Start Num: 8

Candidate Starts for Aleemily\_79:

(Start: 8 @49912 has 3 MA's), (Start: 10 @49927 has 7 MA's), (19, 50059), (21, 50065), (26, 50152), (29, 50185), (32, 50215),

Gene: AnarQue\_57 Start: 49295, Stop: 48963, Start Num: 10

Candidate Starts for AnarQue\_57:

(5, 49427), (Start: 10 @49295 has 7 MA's), (14, 49193), (15, 49184), (19, 49166), (21, 49160), (23, 49133), (25, 49094), (26, 49073), (31, 49019),

Gene: Axumite 54 Start: 47034, Stop: 46714, Start Num: 12

Candidate Starts for Axumite 54:

(1, 47544), (2, 47532), (7, 47133), (Start: 12 @47034 has 4 MA's), (16, 46944), (17, 46935), (27, 46821), (30, 46776),

Gene: BobRoss2024\_56 Start: 47853, Stop: 47530, Start Num: 11

Candidate Starts for BobRoss2024 56:

(3, 48261), (4, 48075), (6, 47943), (9, 47862), (11, 47853), (14, 47754), (15, 47745), (18, 47733), (22, 47703), (23, 47694), (24, 47685),

Gene: Cafasso 80 Start: 50031, Stop: 50351, Start Num: 10

Candidate Starts for Cafasso\_80:

(Start: 8 @50016 has 3 MA's), (Start: 10 @50031 has 7 MA's), (19, 50163), (21, 50169), (26, 50256), (29, 50289), (32, 50319),

Gene: CaiB 57 Start: 49849, Stop: 49514, Start Num: 10

Candidate Starts for CaiB 57:

(5, 49981), (Start: 10 @49849 has 7 MA's), (14, 49747), (15, 49738), (19, 49720), (21, 49714), (23, 49687), (25, 49648), (26, 49627), (28, 49612), (31, 49570),

Gene: CloverMinnie\_56 Start: 48881, Stop: 48549, Start Num: 10

Candidate Starts for CloverMinnie 56:

(5, 49013), (Start: 10 @48881 has 7 MA's), (14, 48779), (15, 48770), (19, 48752), (21, 48746), (23, 48719), (25, 48680), (26, 48659), (31, 48605),

Gene: Fresco\_54 Start: 47034, Stop: 46714, Start Num: 12

Candidate Starts for Fresco\_54:

(1, 47544), (2, 47532), (7, 47133), (Start: 12 @47034 has 4 MA's), (16, 46944), (17, 46935), (27, 46821), (30, 46776),

Gene: Ligma\_54 Start: 47034, Stop: 46714, Start Num: 12

Candidate Starts for Ligma\_54:

(1, 47544), (2, 47532), (7, 47133), (Start: 12 @47034 has 4 MA's), (16, 46944), (17, 46935), (27, 46821), (30, 46776),

Gene: MakoManhole\_54 Start: 48373, Stop: 48041, Start Num: 10

Candidate Starts for MakoManhole\_54:

(Start: 10 @48373 has 7 MA's), (14, 48271), (15, 48262), (19, 48244), (21, 48238), (23, 48211), (25, 48172), (26, 48151), (31, 48097),

Gene: ModicumRichard\_80 Start: 50165, Stop: 50467, Start Num: 10

Candidate Starts for ModicumRichard\_80:

(Start: 8 @ 50150 has 3 MA's), (Start: 10 @ 50165 has 7 MA's), (13, 50219), (24, 50321), (26, 50372), (29, 50405), (32, 50435),

Gene: Morgana\_85 Start: 51884, Stop: 52219, Start Num: 8

Candidate Starts for Morgana\_85:

(Start: 8 @51884 has 3 MA's), (Start: 10 @51899 has 7 MA's), (19, 52031), (21, 52037), (26, 52124), (29, 52157), (32, 52187),

Gene: MossRose\_56 Start: 48926, Stop: 48594, Start Num: 10

Candidate Starts for MossRose\_56:

(Start: 10 @48926 has 7 MA's), (14, 48824), (15, 48815), (19, 48797), (21, 48791), (23, 48764), (25, 48725), (26, 48704), (31, 48650),

Gene: ObLaDi\_80 Start: 50158, Stop: 50493, Start Num: 8

Candidate Starts for ObLaDi\_80:

(Start: 8 @50158 has 3 MA's), (Start: 10 @50173 has 7 MA's), (19, 50305), (21, 50311), (26, 50398), (29, 50431), (32, 50461),

Gene: Shatter\_54 Start: 47034, Stop: 46714, Start Num: 12 Candidate Starts for Shatter\_54: (1, 47544), (2, 47532), (7, 47133), (Start: 12 @47034 has 4 MA's), (16, 46944), (17, 46935), (27, 46821), (30, 46776),

Gene: Wooper\_57 Start: 49267, Stop: 48935, Start Num: 10 Candidate Starts for Wooper\_57: (5, 49399), (Start: 10 @49267 has 7 MA's), (14, 49165), (15, 49156), (19, 49138), (20, 49135), (21, 49132), (23, 49105), (25, 49066), (26, 49045), (31, 48991),