Pham 224794

|                         | Î               | ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~ |
|-------------------------|-----------------|--|
| 1: CanesSauce_41 + 4    |                 |  |
|                         | r<br>P          | ያ ም                                    |
| 2: Posh_76 + 1          |                 |  |
| 5 1 89 <sup>(A)</sup>   | _¢              | ያት ም ጭ ይራ                              |
| B: Pytheas_80 + 1       |                 |  |
|                         | ~° ∱®           | <sub>ም</sub>                           |
| 4: Pollux_78 + 5        |                 |  |
| <u>6</u>                | 181 19 Jo       |  |
| 5: Madeline_70          |                 |  |
|                         | Ŷ Ŷ             |  |
| 6: Zirinka_72 + 4       |                 |  |
| 89 A                    | 19              | <sub>ም</sub> ን ማ <sup>ኑ</sup> ማ        |
| 7: WelcomeAyanna_76 + 1 |                 |  |
|                         | Q <sup>0</sup>  | ~<br>~                                 |
| B: Agueybana_78         |                 |  |
|                         | \$ \$\$\$<br>\$ | 19 3 49 10 10<br>19 3 49 10<br>19 40   |
| 9: Vasanti_63           |                 |  |
|                         | ê rê            |  |
| 10: PantheRoc_80        |                 |  |
|                         | ко фр. су.      | \$\$ \$\$<br>\$                        |
| 11: Sidious_73          |                 |  |
| ~~<br>                  |                 |  |
| 12: Getalong_98         | ንድ /ምላዮ         | P 2 4 4                                |
|                         |                 | ······································ |
| 13: ArchiDore_69        | 2 \$ \$ \$      | <i>4 4 4 4 4</i>                       |
|                         |                 | · · · · · · · · · · · · · · · · · · ·  |
| 14: Malibo_69           |                 |  |

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 224794 Report

This analysis was run 03/28/25 on database version 593.

Pham number 224794 has 30 members, 3 are drafts.

Phages represented in each track:

- Track 1 : CanesSauce\_41, Tolls\_43, Yarn\_39, ChocoMunchkin\_41, AndPeggy\_39
- Track 2 : Posh\_76, Wrigley\_78
- Track 3 : Pytheas\_80, Jablanski\_79
- Track 4 : Pollux 78, Floral 76, EnalisNailo 71, Lilas 72, Marteena 74,
- EMsquaredA 75
- Track 5 : Madeline 70
- Track 6 : Zirinka 72, BoyNamedSue 75, Bialota 72, AlumE 75, Maridalia 77
- Track 7 : WelcomeAyanna\_76, ThankyouJordi\_76
- Track 8 : Aqueybana 78
- Track 9 : Vasanti 63
- Track 10 : PantheRoc 80
- Track 11 : Sidious 73
- Track 12 : Getalong\_98 Track 13 : ArchiDore\_69
- Track 14 : Malibo 69

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

The start number called the most often in the published annotations is 23, it was called in 7 of the 27 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

• AlumE\_75, ArchiDore\_69, Bialota\_72, BoyNamedSue\_75, Malibo\_69, Maridalia 77, PantheRoc\_80, Zirinka\_72,

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

Genes that do not have the "Most Annotated" start: Agueybana\_78, AndPeggy\_39, CanesSauce\_41, ChocoMunchkin\_41, EMsquaredA\_75, EnalisNailo\_71, Floral\_76, Getalong\_98, Jablanski\_79, Lilas\_72, Madeline\_70, Marteena\_74, Pollux\_78, Posh\_76, Pytheas\_80, Sidious\_73, ThankyouJordi\_76, Tolls\_43, Vasanti\_63, WelcomeAyanna\_76, Wrigley\_78, Yarn\_39,

## Summary by start number:

Start 9:

- Found in 5 of 30 (16.7%) of genes in pham
- Manual Annotations of this start: 5 of 27
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Agueybana\_78 (CZ1), Jablanski\_79
- (CY), Pytheas\_80 (CY), ThankyouJordi\_76 (CZ1), WelcomeAyanna\_76 (CZ1),

Start 17:

- Found in 1 of 30 ( 3.3% ) of genes in pham
- Manual Annotations of this start: 1 of 27
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Madeline\_70 (CZ1),

### Start 18:

- Found in 6 of 30 (20.0%) of genes in pham
- Manual Annotations of this start: 6 of 27
- Called 100.0% of time when present
- Phage (with cluster) where this start called: EMsquaredA\_75 (CY1), EnalisNailo\_71
- (CY1), Floral\_76 (CY1), Lilas\_72 (CY1), Marteena\_74 (CY1), Pollux\_78 (CY1),

### Start 20:

- Found in 1 of 30 ( 3.3% ) of genes in pham
- Manual Annotations of this start: 1 of 27
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Vasanti\_63 (CZ2),

#### Start 21:

- Found in 9 of 30 ( 30.0% ) of genes in pham
- Manual Annotations of this start: 6 of 27
- Called 88.9% of time when present

• Phage (with cluster) where this start called: AndPeggy\_39 (CT), CanesSauce\_41 (CT), ChocoMunchkin\_41 (CT), Getalong\_98 (DN1), Posh\_76 (CY), Tolls\_43 (CT), Wrigley\_78 (CY), Yarn\_39 (CT),

Start 23:

- Found in 8 of 30 (26.7%) of genes in pham
- Manual Annotations of this start: 7 of 27
- Called 100.0% of time when present

• Phage (with cluster) where this start called: AlumE\_75 (CZ1), ArchiDore\_69 (DW), Bialota\_72 (CZ1), BoyNamedSue\_75 (CZ1), Malibo\_69 (DW), Maridalia\_77 (CZ1), PantheRoc\_80 (CZ3), Zirinka\_72 (CZ1),

#### Start 24:

- Found in 1 of 30 (3.3%) of genes in pham
- Manual Annotations of this start: 1 of 27
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Sidious\_73 (CZ7),

### Summary by clusters:

There are 9 clusters represented in this pham: CY1, CZ2, CZ3, CZ1, CZ7, CY, DN1, DW, CT,

Info for manual annotations of cluster CT: •Start number 21 was manually annotated 3 times for cluster CT.

Info for manual annotations of cluster CY:

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

•Start number 21 was manually annotated 2 times for cluster CY.

Info for manual annotations of cluster CY1: •Start number 18 was manually annotated 6 times for cluster CY1.

Info for manual annotations of cluster CZ1:

•Start number 9 was manually annotated 3 times for cluster CZ1.

•Start number 17 was manually annotated 1 time for cluster CZ1.

•Start number 23 was manually annotated 5 times for cluster CZ1.

Info for manual annotations of cluster CZ2: •Start number 20 was manually annotated 1 time for cluster CZ2.

Info for manual annotations of cluster CZ3: •Start number 23 was manually annotated 1 time for cluster CZ3.

Info for manual annotations of cluster CZ7: •Start number 24 was manually annotated 1 time for cluster CZ7.

Info for manual annotations of cluster DN1: •Start number 21 was manually annotated 1 time for cluster DN1.

Info for manual annotations of cluster DW: •Start number 23 was manually annotated 1 time for cluster DW.

#### Gene Information:

Gene: Agueybana\_78 Start: 49983, Stop: 50303, Start Num: 9 Candidate Starts for Agueybana\_78: (1, 49773), (5, 49935), (7, 49968), (8, 49980), (Start: 9 @49983 has 5 MA's), (10, 49989), (26, 50070), (36, 50211),

Gene: AlumE\_75 Start: 49953, Stop: 50195, Start Num: 23 Candidate Starts for AlumE\_75: (12, 49908), (Start: 23 @49953 has 7 MA's), (26, 49962),

Gene: AndPeggy\_39 Start: 29751, Stop: 29542, Start Num: 21 Candidate Starts for AndPeggy\_39: (Start: 21 @29751 has 6 MA's), (30, 29652), (32, 29637), (35, 29604), (38, 29577),

Gene: ArchiDore\_69 Start: 47950, Stop: 48180, Start Num: 23 Candidate Starts for ArchiDore\_69:

(Start: 21 @47947 has 6 MA's), (Start: 23 @47950 has 7 MA's), (25, 47956), (26, 47959), (27, 47968), (28, 47977), (29, 48040), (31, 48055), (36, 48100), (37, 48118),

Gene: Bialota\_72 Start: 49404, Stop: 49646, Start Num: 23 Candidate Starts for Bialota\_72: (12, 49359), (Start: 23 @49404 has 7 MA's), (26, 49413),

Gene: BoyNamedSue\_75 Start: 49953, Stop: 50195, Start Num: 23 Candidate Starts for BoyNamedSue\_75: (12, 49908), (Start: 23 @49953 has 7 MA's), (26, 49962),

Gene: CanesSauce\_41 Start: 29924, Stop: 29715, Start Num: 21 Candidate Starts for CanesSauce\_41: (Start: 21 @29924 has 6 MA's), (30, 29825), (32, 29810), (35, 29777), (38, 29750),

Gene: ChocoMunchkin\_41 Start: 29924, Stop: 29715, Start Num: 21 Candidate Starts for ChocoMunchkin\_41: (Start: 21 @29924 has 6 MA's), (30, 29825), (32, 29810), (35, 29777), (38, 29750),

Gene: EMsquaredA\_75 Start: 48515, Stop: 48775, Start Num: 18 Candidate Starts for EMsquaredA\_75: (2, 48284), (4, 48401), (14, 48482), (Start: 18 @48515 has 6 MA's), (25, 48536), (26, 48539), (33, 48653), (36, 48677), (39, 48707),

Gene: EnalisNailo\_71 Start: 49007, Stop: 49267, Start Num: 18 Candidate Starts for EnalisNailo\_71: (2, 48776), (4, 48893), (14, 48974), (Start: 18 @49007 has 6 MA's), (25, 49028), (26, 49031), (33, 49145), (36, 49169), (39, 49199),

Gene: Floral\_76 Start: 50472, Stop: 50732, Start Num: 18 Candidate Starts for Floral\_76: (2, 50241), (4, 50358), (14, 50439), (Start: 18 @50472 has 6 MA's), (25, 50493), (26, 50496), (33, 50610), (36, 50634), (39, 50664),

Gene: Getalong\_98 Start: 53180, Stop: 53425, Start Num: 21 Candidate Starts for Getalong\_98: (13, 53135), (Start: 21 @53180 has 6 MA's), (26, 53195), (31, 53291), (38, 53360),

Gene: Jablanski\_79 Start: 51879, Stop: 52208, Start Num: 9 Candidate Starts for Jablanski\_79: (5, 51831), (7, 51864), (8, 51876), (Start: 9 @51879 has 5 MA's), (10, 51885), (11, 51897), (26, 51972), (34, 52098), (36, 52110), (39, 52140), (42, 52182),

Gene: Lilas\_72 Start: 50545, Stop: 50805, Start Num: 18 Candidate Starts for Lilas\_72: (2, 50314), (4, 50431), (14, 50512), (Start: 18 @50545 has 6 MA's), (25, 50566), (26, 50569), (33, 50683), (36, 50707), (39, 50737),

Gene: Madeline\_70 Start: 49023, Stop: 49289, Start Num: 17 Candidate Starts for Madeline\_70: (6, 48951), (16, 49020), (Start: 17 @49023 has 1 MA's), (19, 49032), (26, 49056),

Gene: Malibo\_69 Start: 46043, Stop: 46270, Start Num: 23

Candidate Starts for Malibo\_69: (Start: 23 @46043 has 7 MA's), (26, 46052), (28, 46070), (29, 46133), (31, 46148), (35, 46190), (40, 46226), (41, 46235),

Gene: Maridalia\_77 Start: 48993, Stop: 49235, Start Num: 23 Candidate Starts for Maridalia\_77: (12, 48948), (Start: 23 @48993 has 7 MA's), (26, 49002),

Gene: Marteena\_74 Start: 48515, Stop: 48775, Start Num: 18 Candidate Starts for Marteena\_74: (2, 48284), (4, 48401), (14, 48482), (Start: 18 @48515 has 6 MA's), (25, 48536), (26, 48539), (33, 48653), (36, 48677), (39, 48707),

Gene: PantheRoc\_80 Start: 50418, Stop: 50660, Start Num: 23 Candidate Starts for PantheRoc\_80: (Start: 23 @50418 has 7 MA's), (26, 50427),

Gene: Pollux\_78 Start: 50472, Stop: 50732, Start Num: 18 Candidate Starts for Pollux\_78: (2, 50241), (4, 50358), (14, 50439), (Start: 18 @50472 has 6 MA's), (25, 50493), (26, 50496), (33, 50610), (36, 50634), (39, 50664),

Gene: Posh\_76 Start: 50733, Stop: 50981, Start Num: 21 Candidate Starts for Posh\_76: (Start: 21 @50733 has 6 MA's), (26, 50745), (34, 50871), (36, 50883), (39, 50913), (42, 50955),

Gene: Pytheas\_80 Start: 51878, Stop: 52207, Start Num: 9 Candidate Starts for Pytheas\_80: (5, 51830), (7, 51863), (8, 51875), (Start: 9 @51878 has 5 MA's), (10, 51884), (11, 51896), (26, 51971), (34, 52097), (36, 52109), (39, 52139), (42, 52181),

Gene: Sidious\_73 Start: 49089, Stop: 49334, Start Num: 24 Candidate Starts for Sidious\_73: (3, 48951), (15, 49056), (22, 49086), (Start: 24 @49089 has 1 MA's), (26, 49098), (33, 49212), (36, 49236), (39, 49266),

Gene: ThankyouJordi\_76 Start: 50792, Stop: 51121, Start Num: 9 Candidate Starts for ThankyouJordi\_76: (8, 50789), (Start: 9 @50792 has 5 MA's), (10, 50798), (26, 50885), (33, 50999), (34, 51011), (36, 51023),

Gene: Tolls\_43 Start: 29996, Stop: 29787, Start Num: 21 Candidate Starts for Tolls\_43: (Start: 21 @29996 has 6 MA's), (30, 29897), (32, 29882), (35, 29849), (38, 29822),

Gene: Vasanti\_63 Start: 42619, Stop: 42852, Start Num: 20 Candidate Starts for Vasanti\_63: (Start: 20 @42619 has 1 MA's), (26, 42634), (27, 42643), (28, 42652), (29, 42715), (31, 42730), (35, 42772), (40, 42808), (41, 42817),

Gene: WelcomeAyanna\_76 Start: 50939, Stop: 51268, Start Num: 9 Candidate Starts for WelcomeAyanna\_76: (8, 50936), (Start: 9 @50939 has 5 MA's), (10, 50945), (26, 51032), (33, 51146), (34, 51158), (36, 51170),

Gene: Wrigley\_78 Start: 50316, Stop: 50564, Start Num: 21 Candidate Starts for Wrigley\_78: (Start: 21 @50316 has 6 MA's), (26, 50328), (34, 50454), (36, 50466), (39, 50496), (42, 50538),

Gene: Yarn\_39 Start: 29756, Stop: 29547, Start Num: 21 Candidate Starts for Yarn\_39: (Start: 21 @29756 has 6 MA's), (30, 29657), (32, 29642), (35, 29609), (38, 29582),

Gene: Zirinka\_72 Start: 49392, Stop: 49634, Start Num: 23 Candidate Starts for Zirinka\_72: (12, 49347), (Start: 23 @49392 has 7 MA's), (26, 49401),