



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 223324 Report

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

Pham number 223324 has 32 members, 1 are drafts.

Phages represented in each track:

- Track 1 : HuhtaEnerson15\_71, Discoknowium\_71, Cuco\_72, Coog\_70, Midas2\_70, PickleBack\_74, Lev2\_74, Jovo\_73, Dublin\_73, ForGetIt\_74, Conspiracy\_74, AgentM\_73, Tiger\_72, Bonamassa\_73, MarysWell\_73, LittleCherry\_72, Aragog\_73, Phlorence\_72, Micasa\_73, Tarynearal\_72, Swirley\_73
- Track 2 : Theia\_72
- Track 3 : EITiger69\_79, Naca\_76, Chadwick\_78, Benedict\_77, Jabiru\_75, UnionJack\_77
- Track 4 : Prin Ashe11\_71
- Track 5 : PetterN\_81, Scorpia\_76, Airmid\_76

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

The start number called the most often in the published annotations is 3, it was called in 31 of the 31 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- AgentM\_73, Airmid\_76, Aragog\_73, Benedict\_77, Bonamassa\_73, Chadwick\_78, Conspiracy\_74, Coog\_70, Cuco\_72, Discoknowium\_71, Dublin\_73, EITiger69\_79, ForGetIt\_74, HuhtaEnerson15\_71, Jabiru\_75, Jovo\_73, Lev2\_74, LittleCherry\_72, MarysWell\_73, Micasa\_73, Midas2\_70, Naca\_76, PetterN\_81, Phlorence\_72, PickleBack\_74, Scorpia\_76, Swirley\_73, Tarynearal\_72, Theia\_72, Tiger\_72, UnionJack\_77,

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:

- Prin Ashe11\_71,

### **Summary by start number:**

Start 1:

- Found in 1 of 32 ( 3.1% ) of genes in pham
- No Manual Annotations of this start.

- Called 100.0% of time when present
- Phage (with cluster) where this start called: Prin Ashe11\_71 (A5),

Start 3:

- Found in 31 of 32 ( 96.9% ) of genes in pham
- Manual Annotations of this start: 31 of 31
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AgentM\_73 (A5), Airmid\_76 (A5), Aragog\_73 (A5), Benedict\_77 (A5), Bonamassa\_73 (A5), Chadwick\_78 (A5), Conspiracy\_74 (A5), Coog\_70 (A5), Cuco\_72 (A5), Discoknowium\_71 (A5), Dublin\_73 (A5), ElTiger69\_79 (A5), ForGetIt\_74 (A5), HuhtaEnerson15\_71 (A5), Jabiru\_75 (A5), Jovo\_73 (A5), Lev2\_74 (A5), LittleCherry\_72 (A5), MarysWell\_73 (A5), Micasa\_73 (A5), Midas2\_70 (A5), Naca\_76 (A5), PetterN\_81 (A5), Phlorence\_72 (A5), PickleBack\_74 (A5), Scorpia\_76 (A5), Swirley\_73 (A5), Tarynearal\_72 (A5), Theia\_72 (A5), Tiger\_72 (A5), UnionJack\_77 (A5),

### Summary by clusters:

There is one cluster represented in this pham: A5

Info for manual annotations of cluster A5:

- Start number 3 was manually annotated 31 times for cluster A5.

### Gene Information:

Gene: AgentM\_73 Start: 44762, Stop: 44610, Start Num: 3

Candidate Starts for AgentM\_73:

(Start: 3 @44762 has 31 MA's), (4, 44741), (5, 44702), (6, 44645), (7, 44642),

Gene: Airmid\_76 Start: 45579, Stop: 45427, Start Num: 3

Candidate Starts for Airmid\_76:

(2, 45585), (Start: 3 @45579 has 31 MA's), (4, 45561), (6, 45465), (7, 45462),

Gene: Aragog\_73 Start: 44780, Stop: 44628, Start Num: 3

Candidate Starts for Aragog\_73:

(Start: 3 @44780 has 31 MA's), (4, 44759), (5, 44720), (6, 44663), (7, 44660),

Gene: Benedict\_77 Start: 45311, Stop: 45159, Start Num: 3

Candidate Starts for Benedict\_77:

(2, 45317), (Start: 3 @45311 has 31 MA's), (4, 45293), (6, 45197), (7, 45194), (8, 45191),

Gene: Bonamassa\_73 Start: 44950, Stop: 44798, Start Num: 3

Candidate Starts for Bonamassa\_73:

(Start: 3 @44950 has 31 MA's), (4, 44929), (5, 44890), (6, 44833), (7, 44830),

Gene: Chadwick\_78 Start: 45206, Stop: 45054, Start Num: 3

Candidate Starts for Chadwick\_78:

(2, 45212), (Start: 3 @45206 has 31 MA's), (4, 45188), (6, 45092), (7, 45089), (8, 45086),

Gene: Conspiracy\_74 Start: 45002, Stop: 44850, Start Num: 3

Candidate Starts for Conspiracy\_74:

(Start: 3 @45002 has 31 MA's), (4, 44981), (5, 44942), (6, 44885), (7, 44882),

Gene: Coog\_70 Start: 44765, Stop: 44613, Start Num: 3

Candidate Starts for Coog\_70:

(Start: 3 @44765 has 31 MA's), (4, 44744), (5, 44705), (6, 44648), (7, 44645),

Gene: Cuco\_72 Start: 44625, Stop: 44473, Start Num: 3

Candidate Starts for Cuco\_72:

(Start: 3 @44625 has 31 MA's), (4, 44604), (5, 44565), (6, 44508), (7, 44505),

Gene: Discoknowium\_71 Start: 44519, Stop: 44367, Start Num: 3

Candidate Starts for Discoknowium\_71:

(Start: 3 @44519 has 31 MA's), (4, 44498), (5, 44459), (6, 44402), (7, 44399),

Gene: Dublin\_73 Start: 44897, Stop: 44745, Start Num: 3

Candidate Starts for Dublin\_73:

(Start: 3 @44897 has 31 MA's), (4, 44876), (5, 44837), (6, 44780), (7, 44777),

Gene: EITiger69\_79 Start: 46000, Stop: 45848, Start Num: 3

Candidate Starts for EITiger69\_79:

(2, 46006), (Start: 3 @46000 has 31 MA's), (4, 45982), (6, 45886), (7, 45883), (8, 45880),

Gene: ForGetIt\_74 Start: 45027, Stop: 44875, Start Num: 3

Candidate Starts for ForGetIt\_74:

(Start: 3 @45027 has 31 MA's), (4, 45006), (5, 44967), (6, 44910), (7, 44907),

Gene: HuhtaEnerson15\_71 Start: 44603, Stop: 44451, Start Num: 3

Candidate Starts for HuhtaEnerson15\_71:

(Start: 3 @44603 has 31 MA's), (4, 44582), (5, 44543), (6, 44486), (7, 44483),

Gene: Jabiru\_75 Start: 45166, Stop: 45014, Start Num: 3

Candidate Starts for Jabiru\_75:

(2, 45172), (Start: 3 @45166 has 31 MA's), (4, 45148), (6, 45052), (7, 45049), (8, 45046),

Gene: Jovo\_73 Start: 45283, Stop: 45131, Start Num: 3

Candidate Starts for Jovo\_73:

(Start: 3 @45283 has 31 MA's), (4, 45262), (5, 45223), (6, 45166), (7, 45163),

Gene: Lev2\_74 Start: 44915, Stop: 44763, Start Num: 3

Candidate Starts for Lev2\_74:

(Start: 3 @44915 has 31 MA's), (4, 44894), (5, 44855), (6, 44798), (7, 44795),

Gene: LittleCherry\_72 Start: 44473, Stop: 44321, Start Num: 3

Candidate Starts for LittleCherry\_72:

(Start: 3 @44473 has 31 MA's), (4, 44452), (5, 44413), (6, 44356), (7, 44353),

Gene: MarysWell\_73 Start: 45140, Stop: 44988, Start Num: 3

Candidate Starts for MarysWell\_73:

(Start: 3 @45140 has 31 MA's), (4, 45119), (5, 45080), (6, 45023), (7, 45020),

Gene: Micasa\_73 Start: 44862, Stop: 44710, Start Num: 3

Candidate Starts for Micasa\_73:

(Start: 3 @44862 has 31 MA's), (4, 44841), (5, 44802), (6, 44745), (7, 44742),

Gene: Midas2\_70 Start: 44765, Stop: 44613, Start Num: 3  
Candidate Starts for Midas2\_70:  
(Start: 3 @44765 has 31 MA's), (4, 44744), (5, 44705), (6, 44648), (7, 44645),

Gene: Naca\_76 Start: 46054, Stop: 45902, Start Num: 3  
Candidate Starts for Naca\_76:  
(2, 46060), (Start: 3 @46054 has 31 MA's), (4, 46036), (6, 45940), (7, 45937), (8, 45934),

Gene: PetterN\_81 Start: 45841, Stop: 45689, Start Num: 3  
Candidate Starts for PetterN\_81:  
(2, 45847), (Start: 3 @45841 has 31 MA's), (4, 45823), (6, 45727), (7, 45724),

Gene: Phlorence\_72 Start: 44662, Stop: 44510, Start Num: 3  
Candidate Starts for Phlorence\_72:  
(Start: 3 @44662 has 31 MA's), (4, 44641), (5, 44602), (6, 44545), (7, 44542),

Gene: PickleBack\_74 Start: 44837, Stop: 44685, Start Num: 3  
Candidate Starts for PickleBack\_74:  
(Start: 3 @44837 has 31 MA's), (4, 44816), (5, 44777), (6, 44720), (7, 44717),

Gene: Prin Ashe11\_71 Start: 44485, Stop: 44324, Start Num: 1  
Candidate Starts for Prin Ashe11\_71:  
(1, 44485), (4, 44455), (5, 44416), (6, 44359), (7, 44356),

Gene: Scorpio\_76 Start: 45412, Stop: 45260, Start Num: 3  
Candidate Starts for Scorpio\_76:  
(2, 45418), (Start: 3 @45412 has 31 MA's), (4, 45394), (6, 45298), (7, 45295),

Gene: Swirley\_73 Start: 44806, Stop: 44654, Start Num: 3  
Candidate Starts for Swirley\_73:  
(Start: 3 @44806 has 31 MA's), (4, 44785), (5, 44746), (6, 44689), (7, 44686),

Gene: Tarynearal\_72 Start: 44642, Stop: 44490, Start Num: 3  
Candidate Starts for Tarynearal\_72:  
(Start: 3 @44642 has 31 MA's), (4, 44621), (5, 44582), (6, 44525), (7, 44522),

Gene: Theia\_72 Start: 45127, Stop: 44975, Start Num: 3  
Candidate Starts for Theia\_72:  
(2, 45133), (Start: 3 @45127 has 31 MA's), (4, 45109), (7, 45010),

Gene: Tiger\_72 Start: 44583, Stop: 44431, Start Num: 3  
Candidate Starts for Tiger\_72:  
(Start: 3 @44583 has 31 MA's), (4, 44562), (5, 44523), (6, 44466), (7, 44463),

Gene: UnionJack\_77 Start: 45076, Stop: 44924, Start Num: 3  
Candidate Starts for UnionJack\_77:  
(2, 45082), (Start: 3 @45076 has 31 MA's), (4, 45058), (6, 44962), (7, 44959), (8, 44956),