



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 86169 Report

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

Pham number 86169 has 31 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\_71, Tarynearal\_72, Swirley\_73
- Track 2 : Theia\_72
- Track 3 : ElTiger69\_79, Naca\_76, Chadwick\_78, Benedict\_77, Jabiru\_75, UnionJack\_77
- Track 4 : PetterN\_81, Scorpio\_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 2, it was called in 30 of the 30 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, ElTiger69\_79, ForGetIt\_74, HuhtaEnerson15\_71, Jabiru\_75, Jovo\_73, Lev2\_74, LittleCherry\_72, MarysWell\_73, Micasa\_71, Midas2\_70, Naca\_76, PetterN\_81, Phlorence\_72, PickleBack\_74, Scorpio\_76, Swirley\_73, Tarynearal\_72, Theia\_72, Tiger\_72, UnionJack\_77,

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

- 

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

- 

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

Start 2:

- Found in 31 of 31 ( 100.0% ) of genes in pham
- Manual Annotations of this start: 30 of 30
- 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\_71 (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 2 was manually annotated 30 times for cluster A5.

### **Gene Information:**

Gene: AgentM\_73 Start: 44762, Stop: 44610, Start Num: 2

Candidate Starts for AgentM\_73:

(Start: 2 @44762 has 30 MA's), (3, 44741), (4, 44702), (5, 44645), (6, 44642),

Gene: Airmid\_76 Start: 45579, Stop: 45427, Start Num: 2

Candidate Starts for Airmid\_76:

(1, 45585), (Start: 2 @45579 has 30 MA's), (3, 45561), (5, 45465), (6, 45462),

Gene: Aragog\_73 Start: 44780, Stop: 44628, Start Num: 2

Candidate Starts for Aragog\_73:

(Start: 2 @44780 has 30 MA's), (3, 44759), (4, 44720), (5, 44663), (6, 44660),

Gene: Benedict\_77 Start: 45311, Stop: 45159, Start Num: 2

Candidate Starts for Benedict\_77:

(1, 45317), (Start: 2 @45311 has 30 MA's), (3, 45293), (5, 45197), (6, 45194), (7, 45191),

Gene: Bonamassa\_73 Start: 44950, Stop: 44798, Start Num: 2

Candidate Starts for Bonamassa\_73:

(Start: 2 @44950 has 30 MA's), (3, 44929), (4, 44890), (5, 44833), (6, 44830),

Gene: Chadwick\_78 Start: 45206, Stop: 45054, Start Num: 2

Candidate Starts for Chadwick\_78:

(1, 45212), (Start: 2 @45206 has 30 MA's), (3, 45188), (5, 45092), (6, 45089), (7, 45086),

Gene: Conspiracy\_74 Start: 45002, Stop: 44850, Start Num: 2

Candidate Starts for Conspiracy\_74:

(Start: 2 @45002 has 30 MA's), (3, 44981), (4, 44942), (5, 44885), (6, 44882),

Gene: Coog\_70 Start: 44765, Stop: 44613, Start Num: 2

Candidate Starts for Coog\_70:

(Start: 2 @44765 has 30 MA's), (3, 44744), (4, 44705), (5, 44648), (6, 44645),

Gene: Cuco\_72 Start: 44625, Stop: 44473, Start Num: 2

Candidate Starts for Cuco\_72:

(Start: 2 @44625 has 30 MA's), (3, 44604), (4, 44565), (5, 44508), (6, 44505),

Gene: Discoknowium\_71 Start: 44519, Stop: 44367, Start Num: 2

Candidate Starts for Discoknowium\_71:

(Start: 2 @44519 has 30 MA's), (3, 44498), (4, 44459), (5, 44402), (6, 44399),

Gene: Dublin\_73 Start: 44897, Stop: 44745, Start Num: 2

Candidate Starts for Dublin\_73:

(Start: 2 @44897 has 30 MA's), (3, 44876), (4, 44837), (5, 44780), (6, 44777),

Gene: ElTiger69\_79 Start: 46000, Stop: 45848, Start Num: 2

Candidate Starts for ElTiger69\_79:

(1, 46006), (Start: 2 @46000 has 30 MA's), (3, 45982), (5, 45886), (6, 45883), (7, 45880),

Gene: ForGetIt\_74 Start: 45027, Stop: 44875, Start Num: 2

Candidate Starts for ForGetIt\_74:

(Start: 2 @45027 has 30 MA's), (3, 45006), (4, 44967), (5, 44910), (6, 44907),

Gene: HuhtaEnerson15\_71 Start: 44603, Stop: 44451, Start Num: 2

Candidate Starts for HuhtaEnerson15\_71:

(Start: 2 @44603 has 30 MA's), (3, 44582), (4, 44543), (5, 44486), (6, 44483),

Gene: Jabiru\_75 Start: 45166, Stop: 45014, Start Num: 2

Candidate Starts for Jabiru\_75:

(1, 45172), (Start: 2 @45166 has 30 MA's), (3, 45148), (5, 45052), (6, 45049), (7, 45046),

Gene: Jovo\_73 Start: 45283, Stop: 45131, Start Num: 2

Candidate Starts for Jovo\_73:

(Start: 2 @45283 has 30 MA's), (3, 45262), (4, 45223), (5, 45166), (6, 45163),

Gene: Lev2\_74 Start: 44915, Stop: 44763, Start Num: 2

Candidate Starts for Lev2\_74:

(Start: 2 @44915 has 30 MA's), (3, 44894), (4, 44855), (5, 44798), (6, 44795),

Gene: LittleCherry\_72 Start: 44473, Stop: 44321, Start Num: 2

Candidate Starts for LittleCherry\_72:

(Start: 2 @44473 has 30 MA's), (3, 44452), (4, 44413), (5, 44356), (6, 44353),

Gene: MarysWell\_73 Start: 45140, Stop: 44988, Start Num: 2

Candidate Starts for MarysWell\_73:

(Start: 2 @45140 has 30 MA's), (3, 45119), (4, 45080), (5, 45023), (6, 45020),

Gene: Micasa\_71 Start: 44862, Stop: 44710, Start Num: 2

Candidate Starts for Micasa\_71:

(Start: 2 @44862 has 30 MA's), (3, 44841), (4, 44802), (5, 44745), (6, 44742),

Gene: Midas2\_70 Start: 44765, Stop: 44613, Start Num: 2

Candidate Starts for Midas2\_70:

(Start: 2 @44765 has 30 MA's), (3, 44744), (4, 44705), (5, 44648), (6, 44645),

Gene: Naca\_76 Start: 46054, Stop: 45902, Start Num: 2

Candidate Starts for Naca\_76:

(1, 46060), (Start: 2 @46054 has 30 MA's), (3, 46036), (5, 45940), (6, 45937), (7, 45934),

Gene: PetterN\_81 Start: 45841, Stop: 45689, Start Num: 2

Candidate Starts for PetterN\_81:

(1, 45847), (Start: 2 @45841 has 30 MA's), (3, 45823), (5, 45727), (6, 45724),

Gene: Phlorence\_72 Start: 44662, Stop: 44510, Start Num: 2

Candidate Starts for Phlorence\_72:

(Start: 2 @44662 has 30 MA's), (3, 44641), (4, 44602), (5, 44545), (6, 44542),

Gene: PickleBack\_74 Start: 44837, Stop: 44685, Start Num: 2

Candidate Starts for PickleBack\_74:

(Start: 2 @44837 has 30 MA's), (3, 44816), (4, 44777), (5, 44720), (6, 44717),

Gene: Scorpia\_76 Start: 45412, Stop: 45260, Start Num: 2

Candidate Starts for Scorpia\_76:

(1, 45418), (Start: 2 @45412 has 30 MA's), (3, 45394), (5, 45298), (6, 45295),

Gene: Swirley\_73 Start: 44806, Stop: 44654, Start Num: 2

Candidate Starts for Swirley\_73:

(Start: 2 @44806 has 30 MA's), (3, 44785), (4, 44746), (5, 44689), (6, 44686),

Gene: Tarynearal\_72 Start: 44642, Stop: 44490, Start Num: 2

Candidate Starts for Tarynearal\_72:

(Start: 2 @44642 has 30 MA's), (3, 44621), (4, 44582), (5, 44525), (6, 44522),

Gene: Theia\_72 Start: 45127, Stop: 44975, Start Num: 2

Candidate Starts for Theia\_72:

(1, 45133), (Start: 2 @45127 has 30 MA's), (3, 45109), (6, 45010),

Gene: Tiger\_72 Start: 44583, Stop: 44431, Start Num: 2

Candidate Starts for Tiger\_72:

(Start: 2 @44583 has 30 MA's), (3, 44562), (4, 44523), (5, 44466), (6, 44463),

Gene: UnionJack\_77 Start: 45076, Stop: 44924, Start Num: 2

Candidate Starts for UnionJack\_77:

(1, 45082), (Start: 2 @45076 has 30 MA's), (3, 45058), (5, 44962), (6, 44959), (7, 44956),