



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 289749 Report

This analysis was run 03/28/26 on database version 641.

Pham number 289749 has 22 members, 3 are drafts.

Phages represented in each track:

- Track 1 : Priya\_2, Eidsmoe\_2, Qobbit\_2, Alma\_2, Conquerage\_2, Spouty\_2, EmyBug\_2
- Track 2 : HortumSL17\_2, Lilleskat\_1, Ugenie5\_1, Phaeder\_2, Aliter\_2, Tubs\_2, Scherzo\_2, Catalina\_2, EdogawaKiddo\_1, Sachima\_1, Pioneer\_2, Phonnegut\_2, Myxus\_2
- Track 3 : Toaka\_2
- Track 4 : Beemo\_2

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

The start number called the most often in the published annotations is 5, it was called in 19 of the 19 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Aliter\_2, Alma\_2, Beemo\_2, Catalina\_2, Conquerage\_2, EdogawaKiddo\_1, Eidsmoe\_2, EmyBug\_2, HortumSL17\_2, Lilleskat\_1, Myxus\_2, Phaeder\_2, Phonnegut\_2, Pioneer\_2, Priya\_2, Qobbit\_2, Sachima\_1, Scherzo\_2, Spouty\_2, Toaka\_2, Tubs\_2, Ugenie5\_1,

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 5:

- Found in 22 of 22 ( 100.0% ) of genes in pham
- Manual Annotations of this start: 19 of 19
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Aliter\_2 (A9), Alma\_2 (A9), Beemo\_2 (A9), Catalina\_2 (A9), Conquerage\_2 (A9), EdogawaKiddo\_1 (A9), Eidsmoe\_2 (A9), EmyBug\_2 (A9), HortumSL17\_2 (A9), Lilleskat\_1 (A9), Myxus\_2 (A9), Phaeder\_2

(A9), Phonnegut\_2 (A9), Pioneer\_2 (A9), Priya\_2 (A9), Qobbit\_2 (A9), Sachima\_1 (A9), Scherzo\_2 (A9), Spouty\_2 (A9), Toaka\_2 (A9), Tubs\_2 (A9), Ugenie5\_1 (A9),

### Summary by clusters:

There is one cluster represented in this pham: A9

Info for manual annotations of cluster A9:

•Start number 5 was manually annotated 19 times for cluster A9.

### Gene Information:

Gene: Aliter\_2 Start: 1050, Stop: 2114, Start Num: 5

Candidate Starts for Aliter\_2:

(1, 714), (2, 750), (3, 786), (4, 789), (Start: 5 @1050 has 19 MA's), (6, 1359), (7, 1485), (8, 1494), (9, 1587), (10, 1605), (11, 1662), (14, 1704), (15, 1776), (16, 1800), (19, 1938), (20, 1980), (21, 1998), (24, 2073),

Gene: Alma\_2 Start: 1051, Stop: 2109, Start Num: 5

Candidate Starts for Alma\_2:

(1, 715), (2, 751), (3, 787), (4, 790), (Start: 5 @1051 has 19 MA's), (6, 1357), (7, 1483), (8, 1492), (9, 1585), (11, 1660), (14, 1702), (15, 1774), (16, 1798), (17, 1876), (18, 1915), (19, 1936), (20, 1978), (21, 1996), (23, 2023), (24, 2071),

Gene: Beemo\_2 Start: 1051, Stop: 2115, Start Num: 5

Candidate Starts for Beemo\_2:

(1, 715), (2, 751), (3, 787), (4, 790), (Start: 5 @1051 has 19 MA's), (6, 1360), (7, 1486), (8, 1495), (9, 1588), (11, 1663), (14, 1705), (15, 1777), (16, 1801), (19, 1939), (20, 1981), (21, 1999), (24, 2074),

Gene: Catalina\_2 Start: 1050, Stop: 2114, Start Num: 5

Candidate Starts for Catalina\_2:

(1, 714), (2, 750), (3, 786), (4, 789), (Start: 5 @1050 has 19 MA's), (6, 1359), (7, 1485), (8, 1494), (9, 1587), (10, 1605), (11, 1662), (14, 1704), (15, 1776), (16, 1800), (19, 1938), (20, 1980), (21, 1998), (24, 2073),

Gene: Conquerage\_2 Start: 1050, Stop: 2108, Start Num: 5

Candidate Starts for Conquerage\_2:

(1, 714), (2, 750), (3, 786), (4, 789), (Start: 5 @1050 has 19 MA's), (6, 1356), (7, 1482), (8, 1491), (9, 1584), (11, 1659), (14, 1701), (15, 1773), (16, 1797), (17, 1875), (18, 1914), (19, 1935), (20, 1977), (21, 1995), (23, 2022), (24, 2070),

Gene: EdogawaKiddo\_1 Start: 1050, Stop: 2114, Start Num: 5

Candidate Starts for EdogawaKiddo\_1:

(1, 714), (2, 750), (3, 786), (4, 789), (Start: 5 @1050 has 19 MA's), (6, 1359), (7, 1485), (8, 1494), (9, 1587), (10, 1605), (11, 1662), (14, 1704), (15, 1776), (16, 1800), (19, 1938), (20, 1980), (21, 1998), (24, 2073),

Gene: Eidsmoe\_2 Start: 1050, Stop: 2108, Start Num: 5

Candidate Starts for Eidsmoe\_2:

(1, 714), (2, 750), (3, 786), (4, 789), (Start: 5 @1050 has 19 MA's), (6, 1356), (7, 1482), (8, 1491), (9, 1584), (11, 1659), (14, 1701), (15, 1773), (16, 1797), (17, 1875), (18, 1914), (19, 1935), (20, 1977), (21,

1995), (23, 2022), (24, 2070),

Gene: EmyBug\_2 Start: 1050, Stop: 2108, Start Num: 5

Candidate Starts for EmyBug\_2:

(1, 714), (2, 750), (3, 786), (4, 789), (Start: 5 @1050 has 19 MA's), (6, 1356), (7, 1482), (8, 1491), (9, 1584), (11, 1659), (14, 1701), (15, 1773), (16, 1797), (17, 1875), (18, 1914), (19, 1935), (20, 1977), (21, 1995), (23, 2022), (24, 2070),

Gene: HortumSL17\_2 Start: 1050, Stop: 2114, Start Num: 5

Candidate Starts for HortumSL17\_2:

(1, 714), (2, 750), (3, 786), (4, 789), (Start: 5 @1050 has 19 MA's), (6, 1359), (7, 1485), (8, 1494), (9, 1587), (10, 1605), (11, 1662), (14, 1704), (15, 1776), (16, 1800), (19, 1938), (20, 1980), (21, 1998), (24, 2073),

Gene: Lilleskat\_1 Start: 1050, Stop: 2114, Start Num: 5

Candidate Starts for Lilleskat\_1:

(1, 714), (2, 750), (3, 786), (4, 789), (Start: 5 @1050 has 19 MA's), (6, 1359), (7, 1485), (8, 1494), (9, 1587), (10, 1605), (11, 1662), (14, 1704), (15, 1776), (16, 1800), (19, 1938), (20, 1980), (21, 1998), (24, 2073),

Gene: Myxus\_2 Start: 1050, Stop: 2114, Start Num: 5

Candidate Starts for Myxus\_2:

(1, 714), (2, 750), (3, 786), (4, 789), (Start: 5 @1050 has 19 MA's), (6, 1359), (7, 1485), (8, 1494), (9, 1587), (10, 1605), (11, 1662), (14, 1704), (15, 1776), (16, 1800), (19, 1938), (20, 1980), (21, 1998), (24, 2073),

Gene: Phaeder\_2 Start: 1050, Stop: 2114, Start Num: 5

Candidate Starts for Phaeder\_2:

(1, 714), (2, 750), (3, 786), (4, 789), (Start: 5 @1050 has 19 MA's), (6, 1359), (7, 1485), (8, 1494), (9, 1587), (10, 1605), (11, 1662), (14, 1704), (15, 1776), (16, 1800), (19, 1938), (20, 1980), (21, 1998), (24, 2073),

Gene: Phonnegut\_2 Start: 1050, Stop: 2114, Start Num: 5

Candidate Starts for Phonnegut\_2:

(1, 714), (2, 750), (3, 786), (4, 789), (Start: 5 @1050 has 19 MA's), (6, 1359), (7, 1485), (8, 1494), (9, 1587), (10, 1605), (11, 1662), (14, 1704), (15, 1776), (16, 1800), (19, 1938), (20, 1980), (21, 1998), (24, 2073),

Gene: Pioneer\_2 Start: 1050, Stop: 2114, Start Num: 5

Candidate Starts for Pioneer\_2:

(1, 714), (2, 750), (3, 786), (4, 789), (Start: 5 @1050 has 19 MA's), (6, 1359), (7, 1485), (8, 1494), (9, 1587), (10, 1605), (11, 1662), (14, 1704), (15, 1776), (16, 1800), (19, 1938), (20, 1980), (21, 1998), (24, 2073),

Gene: Priya\_2 Start: 1050, Stop: 2108, Start Num: 5

Candidate Starts for Priya\_2:

(1, 714), (2, 750), (3, 786), (4, 789), (Start: 5 @1050 has 19 MA's), (6, 1356), (7, 1482), (8, 1491), (9, 1584), (11, 1659), (14, 1701), (15, 1773), (16, 1797), (17, 1875), (18, 1914), (19, 1935), (20, 1977), (21, 1995), (23, 2022), (24, 2070),

Gene: Qobbit\_2 Start: 1050, Stop: 2108, Start Num: 5

Candidate Starts for Qobbit\_2:

(1, 714), (2, 750), (3, 786), (4, 789), (Start: 5 @1050 has 19 MA's), (6, 1356), (7, 1482), (8, 1491), (9, 1584), (11, 1659), (14, 1701), (15, 1773), (16, 1797), (17, 1875), (18, 1914), (19, 1935), (20, 1977), (21, 1995), (23, 2022), (24, 2070),

Gene: Sachima\_1 Start: 1050, Stop: 2114, Start Num: 5

Candidate Starts for Sachima\_1:

(1, 714), (2, 750), (3, 786), (4, 789), (Start: 5 @1050 has 19 MA's), (6, 1359), (7, 1485), (8, 1494), (9, 1587), (10, 1605), (11, 1662), (14, 1704), (15, 1776), (16, 1800), (19, 1938), (20, 1980), (21, 1998), (24, 2073),

Gene: Scherzo\_2 Start: 1050, Stop: 2114, Start Num: 5

Candidate Starts for Scherzo\_2:

(1, 714), (2, 750), (3, 786), (4, 789), (Start: 5 @1050 has 19 MA's), (6, 1359), (7, 1485), (8, 1494), (9, 1587), (10, 1605), (11, 1662), (14, 1704), (15, 1776), (16, 1800), (19, 1938), (20, 1980), (21, 1998), (24, 2073),

Gene: Spouty\_2 Start: 1050, Stop: 2108, Start Num: 5

Candidate Starts for Spouty\_2:

(1, 714), (2, 750), (3, 786), (4, 789), (Start: 5 @1050 has 19 MA's), (6, 1356), (7, 1482), (8, 1491), (9, 1584), (11, 1659), (14, 1701), (15, 1773), (16, 1797), (17, 1875), (18, 1914), (19, 1935), (20, 1977), (21, 1995), (23, 2022), (24, 2070),

Gene: Toaka\_2 Start: 1049, Stop: 2170, Start Num: 5

Candidate Starts for Toaka\_2:

(Start: 5 @1049 has 19 MA's), (7, 1475), (8, 1484), (11, 1661), (12, 1688), (13, 1694), (15, 1775), (16, 1799), (20, 2027), (22, 2066),

Gene: Tubs\_2 Start: 1050, Stop: 2114, Start Num: 5

Candidate Starts for Tubs\_2:

(1, 714), (2, 750), (3, 786), (4, 789), (Start: 5 @1050 has 19 MA's), (6, 1359), (7, 1485), (8, 1494), (9, 1587), (10, 1605), (11, 1662), (14, 1704), (15, 1776), (16, 1800), (19, 1938), (20, 1980), (21, 1998), (24, 2073),

Gene: Ugenie5\_1 Start: 1050, Stop: 2114, Start Num: 5

Candidate Starts for Ugenie5\_1:

(1, 714), (2, 750), (3, 786), (4, 789), (Start: 5 @1050 has 19 MA's), (6, 1359), (7, 1485), (8, 1494), (9, 1587), (10, 1605), (11, 1662), (14, 1704), (15, 1776), (16, 1800), (19, 1938), (20, 1980), (21, 1998), (24, 2073),