



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 289521 Report

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

Pham number 289521 has 46 members, 4 are drafts.

Phages represented in each track:

- Track 1 : Aesir\_19, Krampus\_20, OhDear\_20, Anakin\_20, JingleBells\_19, Potty\_20, Rachella\_20, Erudite\_19, AnnaSerena\_20, Neptune\_20, FreddieHg\_19, Haunter\_20, Artiphact\_20, DannyDe\_19, Tedro\_20, MortySmith\_18, OverHedge\_20, PhunaPhoke\_20, Cybele\_20, Annapurna\_19, JDawG\_19, SilentWarrior\_19, Kate\_20, Poultruss\_19, Dauntless\_19, Crestdrop\_19, CoolCookie\_20, Chivey\_19, Gilda\_20, Hiddenleaf\_19, Snakehole\_21, NarutoRun\_20, Pharpay\_20
- Track 2 : Tongui\_19, Rie18\_20, Karate\_19, Hager\_21, FountainFog\_19
- Track 3 : Bramble\_21, LordBart\_21, TinyMiny\_21, RikSengupta\_21, Sparcetus\_21, Ajin\_21, Kors\_21
- Track 4 : Wollypog\_8

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

The start number called the most often in the published annotations is 1, it was called in 42 of the 42 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Aesir\_19, Ajin\_21, Anakin\_20, AnnaSerena\_20, Annapurna\_19, Artiphact\_20, Bramble\_21, Chivey\_19, CoolCookie\_20, Crestdrop\_19, Cybele\_20, DannyDe\_19, Dauntless\_19, Erudite\_19, FountainFog\_19, FreddieHg\_19, Gilda\_20, Hager\_21, Haunter\_20, Hiddenleaf\_19, JDawG\_19, JingleBells\_19, Karate\_19, Kate\_20, Kors\_21, Krampus\_20, LordBart\_21, MortySmith\_18, NarutoRun\_20, Neptune\_20, OhDear\_20, OverHedge\_20, Pharpay\_20, PhunaPhoke\_20, Potty\_20, Poultruss\_19, Rachella\_20, Rie18\_20, RikSengupta\_21, SilentWarrior\_19, Snakehole\_21, Sparcetus\_21, Tedro\_20, TinyMiny\_21, Tongui\_19, Wollypog\_8,

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 1:

- Found in 46 of 46 ( 100.0% ) of genes in pham
- Manual Annotations of this start: 42 of 42
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Aesir\_19 (EF), Ajin\_21 (EF), Anakin\_20 (EF), AnnaSerena\_20 (EF), Annapurna\_19 (EF), Artiphact\_20 (EF), Bramble\_21 (EF), Chivey\_19 (EF), CoolCookie\_20 (EF), Crestdrop\_19 (EF), Cybele\_20 (EF), DannyDe\_19 (EF), Dauntless\_19 (EF), Erudite\_19 (EF), FountainFog\_19 (EF), FreddieHg\_19 (EF), Gilda\_20 (EF), Hager\_21 (EF), Haunter\_20 (EF), Hiddenleaf\_19 (EF), JDawG\_19 (EF), JingleBells\_19 (EF), Karate\_19 (EF), Kate\_20 (EF), Kors\_21 (EF), Krampus\_20 (EF), LordBart\_21 (EF), MortySmith\_18 (EF), NarutoRun\_20 (EF), Neptune\_20 (EF), OhDear\_20 (EF), OverHedge\_20 (EF), Pharpay\_20 (EF), PhunaPhoke\_20 (EF), Potty\_20 (EF), Poultruss\_19 (EF), Rachella\_20 (EF), Rie18\_20 (EF), RikSengupta\_21 (EF), SilentWarrior\_19 (EF), Snakehole\_21 (EF), Sparcetus\_21 (EF), Tedro\_20 (EF), TinyMiny\_21 (EF), Tongui\_19 (EF), Wollypog\_8 (singleton),

#### Summary by clusters:

There are 2 clusters represented in this pham: singleton, EF,

Info for manual annotations of cluster EF:

- Start number 1 was manually annotated 41 times for cluster EF.

#### **Gene Information:**

Gene: Aesir\_19 Start: 11130, Stop: 11438, Start Num: 1

Candidate Starts for Aesir\_19:

(Start: 1 @11130 has 42 MA's), (3, 11181), (10, 11385),

Gene: Ajin\_21 Start: 11286, Stop: 11603, Start Num: 1

Candidate Starts for Ajin\_21:

(Start: 1 @11286 has 42 MA's), (2, 11322), (5, 11421), (6, 11445), (7, 11490), (8, 11499),

Gene: Anakin\_20 Start: 11340, Stop: 11648, Start Num: 1

Candidate Starts for Anakin\_20:

(Start: 1 @11340 has 42 MA's), (3, 11391), (10, 11595),

Gene: AnnaSerena\_20 Start: 11349, Stop: 11657, Start Num: 1

Candidate Starts for AnnaSerena\_20:

(Start: 1 @11349 has 42 MA's), (3, 11400), (10, 11604),

Gene: Annapurna\_19 Start: 10549, Stop: 10857, Start Num: 1

Candidate Starts for Annapurna\_19:

(Start: 1 @10549 has 42 MA's), (3, 10600), (10, 10804),

Gene: Artiphact\_20 Start: 11341, Stop: 11649, Start Num: 1

Candidate Starts for Artiphact\_20:

(Start: 1 @11341 has 42 MA's), (3, 11392), (10, 11596),

Gene: Bramble\_21 Start: 11251, Stop: 11568, Start Num: 1

Candidate Starts for Bramble\_21:  
(Start: 1 @11251 has 42 MA's), (2, 11287), (5, 11386), (6, 11410), (7, 11455), (8, 11464),

Gene: Chivey\_19 Start: 10542, Stop: 10850, Start Num: 1  
Candidate Starts for Chivey\_19:  
(Start: 1 @10542 has 42 MA's), (3, 10593), (10, 10797),

Gene: CoolCookie\_20 Start: 11347, Stop: 11655, Start Num: 1  
Candidate Starts for CoolCookie\_20:  
(Start: 1 @11347 has 42 MA's), (3, 11398), (10, 11602),

Gene: Crestdrop\_19 Start: 10416, Stop: 10724, Start Num: 1  
Candidate Starts for Crestdrop\_19:  
(Start: 1 @10416 has 42 MA's), (3, 10467), (10, 10671),

Gene: Cybele\_20 Start: 11317, Stop: 11625, Start Num: 1  
Candidate Starts for Cybele\_20:  
(Start: 1 @11317 has 42 MA's), (3, 11368), (10, 11572),

Gene: DannyDe\_19 Start: 10534, Stop: 10842, Start Num: 1  
Candidate Starts for DannyDe\_19:  
(Start: 1 @10534 has 42 MA's), (3, 10585), (10, 10789),

Gene: Dauntless\_19 Start: 11059, Stop: 11367, Start Num: 1  
Candidate Starts for Dauntless\_19:  
(Start: 1 @11059 has 42 MA's), (3, 11110), (10, 11314),

Gene: Erudite\_19 Start: 11059, Stop: 11367, Start Num: 1  
Candidate Starts for Erudite\_19:  
(Start: 1 @11059 has 42 MA's), (3, 11110), (10, 11314),

Gene: FountainFog\_19 Start: 10668, Stop: 10976, Start Num: 1  
Candidate Starts for FountainFog\_19:  
(Start: 1 @10668 has 42 MA's), (3, 10719),

Gene: FreddieHg\_19 Start: 10558, Stop: 10866, Start Num: 1  
Candidate Starts for FreddieHg\_19:  
(Start: 1 @10558 has 42 MA's), (3, 10609), (10, 10813),

Gene: Gilda\_20 Start: 11341, Stop: 11649, Start Num: 1  
Candidate Starts for Gilda\_20:  
(Start: 1 @11341 has 42 MA's), (3, 11392), (10, 11596),

Gene: Hager\_21 Start: 10912, Stop: 11220, Start Num: 1  
Candidate Starts for Hager\_21:  
(Start: 1 @10912 has 42 MA's), (3, 10963),

Gene: Haunter\_20 Start: 10754, Stop: 11062, Start Num: 1  
Candidate Starts for Haunter\_20:  
(Start: 1 @10754 has 42 MA's), (3, 10805), (10, 11009),

Gene: Hiddenleaf\_19 Start: 10542, Stop: 10850, Start Num: 1  
Candidate Starts for Hiddenleaf\_19:

(Start: 1 @10542 has 42 MA's), (3, 10593), (10, 10797),

Gene: JDawG\_19 Start: 11124, Stop: 11432, Start Num: 1

Candidate Starts for JDawG\_19:

(Start: 1 @11124 has 42 MA's), (3, 11175), (10, 11379),

Gene: JingleBells\_19 Start: 10623, Stop: 10931, Start Num: 1

Candidate Starts for JingleBells\_19:

(Start: 1 @10623 has 42 MA's), (3, 10674), (10, 10878),

Gene: Karate\_19 Start: 10762, Stop: 11070, Start Num: 1

Candidate Starts for Karate\_19:

(Start: 1 @10762 has 42 MA's), (3, 10813),

Gene: Kate\_20 Start: 11349, Stop: 11657, Start Num: 1

Candidate Starts for Kate\_20:

(Start: 1 @11349 has 42 MA's), (3, 11400), (10, 11604),

Gene: Kors\_21 Start: 11332, Stop: 11649, Start Num: 1

Candidate Starts for Kors\_21:

(Start: 1 @11332 has 42 MA's), (2, 11368), (5, 11467), (6, 11491), (7, 11536), (8, 11545),

Gene: Krampus\_20 Start: 11347, Stop: 11655, Start Num: 1

Candidate Starts for Krampus\_20:

(Start: 1 @11347 has 42 MA's), (3, 11398), (10, 11602),

Gene: LordBart\_21 Start: 11248, Stop: 11565, Start Num: 1

Candidate Starts for LordBart\_21:

(Start: 1 @11248 has 42 MA's), (2, 11284), (5, 11383), (6, 11407), (7, 11452), (8, 11461),

Gene: MortySmith\_18 Start: 10521, Stop: 10829, Start Num: 1

Candidate Starts for MortySmith\_18:

(Start: 1 @10521 has 42 MA's), (3, 10572), (10, 10776),

Gene: NarutoRun\_20 Start: 11340, Stop: 11648, Start Num: 1

Candidate Starts for NarutoRun\_20:

(Start: 1 @11340 has 42 MA's), (3, 11391), (10, 11595),

Gene: Neptune\_20 Start: 11317, Stop: 11625, Start Num: 1

Candidate Starts for Neptune\_20:

(Start: 1 @11317 has 42 MA's), (3, 11368), (10, 11572),

Gene: OhDear\_20 Start: 11346, Stop: 11654, Start Num: 1

Candidate Starts for OhDear\_20:

(Start: 1 @11346 has 42 MA's), (3, 11397), (10, 11601),

Gene: OverHedge\_20 Start: 11314, Stop: 11622, Start Num: 1

Candidate Starts for OverHedge\_20:

(Start: 1 @11314 has 42 MA's), (3, 11365), (10, 11569),

Gene: Pharpay\_20 Start: 11362, Stop: 11670, Start Num: 1

Candidate Starts for Pharpay\_20:

(Start: 1 @11362 has 42 MA's), (3, 11413), (10, 11617),

Gene: PhunaPhoke\_20 Start: 11335, Stop: 11643, Start Num: 1  
Candidate Starts for PhunaPhoke\_20:  
(Start: 1 @11335 has 42 MA's), (3, 11386), (10, 11590),

Gene: Potty\_20 Start: 11340, Stop: 11648, Start Num: 1  
Candidate Starts for Potty\_20:  
(Start: 1 @11340 has 42 MA's), (3, 11391), (10, 11595),

Gene: Poultress\_19 Start: 11113, Stop: 11421, Start Num: 1  
Candidate Starts for Poultress\_19:  
(Start: 1 @11113 has 42 MA's), (3, 11164), (10, 11368),

Gene: Rachella\_20 Start: 11343, Stop: 11651, Start Num: 1  
Candidate Starts for Rachella\_20:  
(Start: 1 @11343 has 42 MA's), (3, 11394), (10, 11598),

Gene: Rie18\_20 Start: 10694, Stop: 11002, Start Num: 1  
Candidate Starts for Rie18\_20:  
(Start: 1 @10694 has 42 MA's), (3, 10745),

Gene: RikSengupta\_21 Start: 11369, Stop: 11686, Start Num: 1  
Candidate Starts for RikSengupta\_21:  
(Start: 1 @11369 has 42 MA's), (2, 11405), (5, 11504), (6, 11528), (7, 11573), (8, 11582),

Gene: SilentWarrior\_19 Start: 10550, Stop: 10858, Start Num: 1  
Candidate Starts for SilentWarrior\_19:  
(Start: 1 @10550 has 42 MA's), (3, 10601), (10, 10805),

Gene: Snakehole\_21 Start: 10639, Stop: 10947, Start Num: 1  
Candidate Starts for Snakehole\_21:  
(Start: 1 @10639 has 42 MA's), (3, 10690), (10, 10894),

Gene: Sparcetus\_21 Start: 11248, Stop: 11565, Start Num: 1  
Candidate Starts for Sparcetus\_21:  
(Start: 1 @11248 has 42 MA's), (2, 11284), (5, 11383), (6, 11407), (7, 11452), (8, 11461),

Gene: Tedro\_20 Start: 10813, Stop: 11121, Start Num: 1  
Candidate Starts for Tedro\_20:  
(Start: 1 @10813 has 42 MA's), (3, 10864), (10, 11068),

Gene: TinyMiny\_21 Start: 11267, Stop: 11584, Start Num: 1  
Candidate Starts for TinyMiny\_21:  
(Start: 1 @11267 has 42 MA's), (2, 11303), (5, 11402), (6, 11426), (7, 11471), (8, 11480),

Gene: Tongui\_19 Start: 10686, Stop: 10994, Start Num: 1  
Candidate Starts for Tongui\_19:  
(Start: 1 @10686 has 42 MA's), (3, 10737),

Gene: Wollypog\_8 Start: 7934, Stop: 8242, Start Num: 1  
Candidate Starts for Wollypog\_8:  
(Start: 1 @7934 has 42 MA's), (4, 8015), (9, 8156), (11, 8195), (12, 8228),