



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 158003 Report

This analysis was run 04/13/24 on database version 558.

Pham number 158003 has 41 members, 11 are drafts.

Phages represented in each track:

- Track 1 : Myrna\_9
- Track 2 : Phabba\_9
- Track 3 : Greely\_9
- Track 4 : Pharpay\_60, OverHedge\_61, Krampus\_61, Potty\_60, Anakin\_61, Rachella\_61, Haunter\_61, NarutoRun\_61, Cybele\_61, PhunaPhoke\_61, Kate\_61, AnnaSerena\_61, Gilda\_61, Neptune\_61
- Track 5 : Sparcetus\_15, RikSengupta\_15
- Track 6 : Aesir\_60, JingleBells\_62, JDawG\_60, Crestdrop\_63, Dauntless\_61, FreddieHg\_62, Chivey\_62, Tedro\_61, Snakehole\_62, Erudite\_60, Hiddenleaf\_62, MortySmith\_59, Hager\_62
- Track 7 : Ajin\_16
- Track 8 : DannyDe\_62
- Track 9 : Kors\_16
- Track 10 : Poultruss\_61
- Track 11 : TinyMiny\_15
- Track 12 : CoolCookie\_66
- Track 13 : Rie18\_61
- Track 14 : Honk\_72
- Track 15 : Zeta1847\_60

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

The start number called the most often in the published annotations is 8, it was called in 22 of the 30 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Aesir\_60, Anakin\_61, AnnaSerena\_61, Chivey\_62, CoolCookie\_66, Crestdrop\_63, Cybele\_61, Dauntless\_61, Erudite\_60, FreddieHg\_62, Gilda\_61, Hager\_62, Haunter\_61, Hiddenleaf\_62, JDawG\_60, JingleBells\_62, Kate\_61, Krampus\_61, MortySmith\_59, NarutoRun\_61, Neptune\_61, OverHedge\_61, Pharpay\_60, PhunaPhoke\_61, Potty\_60, Poultruss\_61, Rachella\_61, Rie18\_61, Snakehole\_62, Tedro\_61,

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

- DannyDe\_62,

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

- Ajin\_16, Greely\_9, Honk\_72, Kors\_16, Myrna\_9, Phabba\_9, RikSengupta\_15, Sparcetus\_15, TinyMiny\_15, Zeta1847\_60,

### Summary by start number:

Start 1:

- Found in 31 of 41 ( 75.6% ) of genes in pham
- Manual Annotations of this start: 1 of 30
- Called 3.2% of time when present
- Phage (with cluster) where this start called: DannyDe\_62 (EF),

Start 2:

- Found in 5 of 41 ( 12.2% ) of genes in pham
- Manual Annotations of this start: 1 of 30
- Called 20.0% of time when present
- Phage (with cluster) where this start called: TinyMiny\_15 (EF),

Start 4:

- Found in 1 of 41 ( 2.4% ) of genes in pham
- Manual Annotations of this start: 1 of 30
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Zeta1847\_60 (EH),

Start 6:

- Found in 3 of 41 ( 7.3% ) of genes in pham
- No Manual Annotations of this start.
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Greely\_9 (C2),

Start 7:

- Found in 2 of 41 ( 4.9% ) of genes in pham
- Manual Annotations of this start: 1 of 30
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Honk\_72 (EH),

Start 8:

- Found in 31 of 41 ( 75.6% ) of genes in pham
- Manual Annotations of this start: 22 of 30
- Called 96.8% of time when present
- Phage (with cluster) where this start called: Aesir\_60 (EF), Anakin\_61 (EF), AnnaSerena\_61 (EF), Chivey\_62 (EF), CoolCookie\_66 (EF), Crestdrop\_63 (EF), Cybele\_61 (EF), Dauntless\_61 (EF), Erudite\_60 (EF), FreddieHg\_62 (EF), Gilda\_61 (EF), Hager\_62 (EF), Haunter\_61 (EF), Hiddenleaf\_62 (EF), JDawG\_60 (EF), JingleBells\_62 (EF), Kate\_61 (EF), Krampus\_61 (EF), MortySmith\_59 (EF), NarutoRun\_61 (EF), Neptune\_61 (EF), OverHedge\_61 (EF), Pharpay\_60 (EF), PhunaPhoke\_61 (EF), Potty\_60 (EF), Poultruss\_61 (EF), Rachella\_61 (EF), Rie18\_61 (EF), Snakehole\_62 (EF), Tedro\_61 (EF),

Start 9:

- Found in 5 of 41 ( 12.2% ) of genes in pham

- Manual Annotations of this start: 2 of 30
- Called 80.0% of time when present
- Phage (with cluster) where this start called: Ajin\_16 (EF), Kors\_16 (EF), RikSengupta\_15 (EF), Sparcetus\_15 (EF),

Start 10:

- Found in 3 of 41 ( 7.3% ) of genes in pham
- Manual Annotations of this start: 2 of 30
- Called 66.7% of time when present
- Phage (with cluster) where this start called: Myrna\_9 (C2), Phabba\_9 (C2),

### **Summary by clusters:**

There are 3 clusters represented in this pham: C2, EF, EH,

Info for manual annotations of cluster C2:

- Start number 10 was manually annotated 2 times for cluster C2.

Info for manual annotations of cluster EF:

- Start number 1 was manually annotated 1 time for cluster EF.
- Start number 2 was manually annotated 1 time for cluster EF.
- Start number 8 was manually annotated 22 times for cluster EF.
- Start number 9 was manually annotated 2 times for cluster EF.

Info for manual annotations of cluster EH:

- Start number 4 was manually annotated 1 time for cluster EH.
- Start number 7 was manually annotated 1 time for cluster EH.

### **Gene Information:**

Gene: Aesir\_60 Start: 46858, Stop: 47505, Start Num: 8

Candidate Starts for Aesir\_60:

(Start: 1 @46816 has 1 MA's), (Start: 8 @46858 has 22 MA's), (11, 46996),

Gene: Ajin\_16 Start: 7272, Stop: 7913, Start Num: 9

Candidate Starts for Ajin\_16:

(Start: 2 @7224 has 1 MA's), (Start: 9 @7272 has 2 MA's), (11, 7404), (16, 7572), (18, 7596), (22, 7647), (27, 7860),

Gene: Anakin\_61 Start: 47166, Stop: 47813, Start Num: 8

Candidate Starts for Anakin\_61:

(Start: 1 @47124 has 1 MA's), (Start: 8 @47166 has 22 MA's), (11, 47304), (22, 47547),

Gene: AnnaSerena\_61 Start: 47200, Stop: 47847, Start Num: 8

Candidate Starts for AnnaSerena\_61:

(Start: 1 @47158 has 1 MA's), (Start: 8 @47200 has 22 MA's), (11, 47338), (22, 47581),

Gene: Chivey\_62 Start: 46661, Stop: 47308, Start Num: 8

Candidate Starts for Chivey\_62:

(Start: 1 @46619 has 1 MA's), (Start: 8 @46661 has 22 MA's), (11, 46799),

Gene: CoolCookie\_66 Start: 47242, Stop: 47889, Start Num: 8  
Candidate Starts for CoolCookie\_66:  
(Start: 1 @47200 has 1 MA's), (Start: 8 @47242 has 22 MA's), (11, 47380), (28, 47842),

Gene: Crestdrop\_63 Start: 46885, Stop: 47532, Start Num: 8  
Candidate Starts for Crestdrop\_63:  
(Start: 1 @46843 has 1 MA's), (Start: 8 @46885 has 22 MA's), (11, 47023),

Gene: Cybele\_61 Start: 47196, Stop: 47843, Start Num: 8  
Candidate Starts for Cybele\_61:  
(Start: 1 @47154 has 1 MA's), (Start: 8 @47196 has 22 MA's), (11, 47334), (22, 47577),

Gene: DannyDe\_62 Start: 46620, Stop: 47309, Start Num: 1  
Candidate Starts for DannyDe\_62:  
(Start: 1 @46620 has 1 MA's), (Start: 8 @46662 has 22 MA's), (11, 46800),

Gene: Dauntless\_61 Start: 46793, Stop: 47440, Start Num: 8  
Candidate Starts for Dauntless\_61:  
(Start: 1 @46751 has 1 MA's), (Start: 8 @46793 has 22 MA's), (11, 46931),

Gene: Erudite\_60 Start: 46793, Stop: 47440, Start Num: 8  
Candidate Starts for Erudite\_60:  
(Start: 1 @46751 has 1 MA's), (Start: 8 @46793 has 22 MA's), (11, 46931),

Gene: FreddieHg\_62 Start: 46678, Stop: 47325, Start Num: 8  
Candidate Starts for FreddieHg\_62:  
(Start: 1 @46636 has 1 MA's), (Start: 8 @46678 has 22 MA's), (11, 46816),

Gene: Gilda\_61 Start: 47188, Stop: 47835, Start Num: 8  
Candidate Starts for Gilda\_61:  
(Start: 1 @47146 has 1 MA's), (Start: 8 @47188 has 22 MA's), (11, 47326), (22, 47569),

Gene: Greely\_9 Start: 3736, Stop: 4431, Start Num: 6  
Candidate Starts for Greely\_9:  
(6, 3736), (Start: 10 @3772 has 2 MA's), (13, 3958), (20, 4105), (21, 4114), (24, 4177),

Gene: Hager\_62 Start: 46579, Stop: 47226, Start Num: 8  
Candidate Starts for Hager\_62:  
(Start: 1 @46537 has 1 MA's), (Start: 8 @46579 has 22 MA's), (11, 46717),

Gene: Haunter\_61 Start: 46430, Stop: 47077, Start Num: 8  
Candidate Starts for Haunter\_61:  
(Start: 1 @46388 has 1 MA's), (Start: 8 @46430 has 22 MA's), (11, 46568), (22, 46811),

Gene: Hiddenleaf\_62 Start: 46661, Stop: 47308, Start Num: 8  
Candidate Starts for Hiddenleaf\_62:  
(Start: 1 @46619 has 1 MA's), (Start: 8 @46661 has 22 MA's), (11, 46799),

Gene: Honk\_72 Start: 45240, Stop: 45872, Start Num: 7  
Candidate Starts for Honk\_72:  
(3, 45204), (Start: 7 @45240 has 1 MA's), (17, 45540), (19, 45594), (23, 45639), (25, 45759),

Gene: JDawG\_60 Start: 46853, Stop: 47500, Start Num: 8

Candidate Starts for JDawG\_60:

(Start: 1 @46811 has 1 MA's), (Start: 8 @46853 has 22 MA's), (11, 46991),

Gene: JingleBells\_62 Start: 46766, Stop: 47413, Start Num: 8

Candidate Starts for JingleBells\_62:

(Start: 1 @46724 has 1 MA's), (Start: 8 @46766 has 22 MA's), (11, 46904),

Gene: Kate\_61 Start: 47105, Stop: 47752, Start Num: 8

Candidate Starts for Kate\_61:

(Start: 1 @47063 has 1 MA's), (Start: 8 @47105 has 22 MA's), (11, 47243), (22, 47486),

Gene: Kors\_16 Start: 7305, Stop: 7943, Start Num: 9

Candidate Starts for Kors\_16:

(Start: 2 @7257 has 1 MA's), (Start: 9 @7305 has 2 MA's), (15, 7527), (16, 7602), (18, 7626), (19, 7659), (22, 7677), (27, 7890),

Gene: Krampus\_61 Start: 47201, Stop: 47848, Start Num: 8

Candidate Starts for Krampus\_61:

(Start: 1 @47159 has 1 MA's), (Start: 8 @47201 has 22 MA's), (11, 47339), (22, 47582),

Gene: MortySmith\_59 Start: 46267, Stop: 46914, Start Num: 8

Candidate Starts for MortySmith\_59:

(Start: 1 @46225 has 1 MA's), (Start: 8 @46267 has 22 MA's), (11, 46405),

Gene: Myrna\_9 Start: 3884, Stop: 4543, Start Num: 10

Candidate Starts for Myrna\_9:

(6, 3851), (Start: 10 @3884 has 2 MA's), (13, 4070), (20, 4217), (24, 4289), (26, 4418), (29, 4472),

Gene: NarutoRun\_61 Start: 47166, Stop: 47813, Start Num: 8

Candidate Starts for NarutoRun\_61:

(Start: 1 @47124 has 1 MA's), (Start: 8 @47166 has 22 MA's), (11, 47304), (22, 47547),

Gene: Neptune\_61 Start: 47196, Stop: 47843, Start Num: 8

Candidate Starts for Neptune\_61:

(Start: 1 @47154 has 1 MA's), (Start: 8 @47196 has 22 MA's), (11, 47334), (22, 47577),

Gene: OverHedge\_61 Start: 47062, Stop: 47709, Start Num: 8

Candidate Starts for OverHedge\_61:

(Start: 1 @47020 has 1 MA's), (Start: 8 @47062 has 22 MA's), (11, 47200), (22, 47443),

Gene: Phabba\_9 Start: 3508, Stop: 4167, Start Num: 10

Candidate Starts for Phabba\_9:

(6, 3472), (Start: 10 @3508 has 2 MA's), (13, 3694), (20, 3841), (24, 3913),

Gene: Pharpay\_60 Start: 47211, Stop: 47858, Start Num: 8

Candidate Starts for Pharpay\_60:

(Start: 1 @47169 has 1 MA's), (Start: 8 @47211 has 22 MA's), (11, 47349), (22, 47592),

Gene: PhunaPhoke\_61 Start: 47181, Stop: 47828, Start Num: 8

Candidate Starts for PhunaPhoke\_61:

(Start: 1 @47139 has 1 MA's), (Start: 8 @47181 has 22 MA's), (11, 47319), (22, 47562),

Gene: Potty\_60 Start: 47111, Stop: 47758, Start Num: 8

Candidate Starts for Potty\_60:

(Start: 1 @47069 has 1 MA's), (Start: 8 @47111 has 22 MA's), (11, 47249), (22, 47492),

Gene: Poultress\_61 Start: 47408, Stop: 48055, Start Num: 8

Candidate Starts for Poultress\_61:

(Start: 1 @47366 has 1 MA's), (Start: 8 @47408 has 22 MA's), (11, 47546), (14, 47630), (22, 47789), (28, 48008),

Gene: Rachella\_61 Start: 47192, Stop: 47839, Start Num: 8

Candidate Starts for Rachella\_61:

(Start: 1 @47150 has 1 MA's), (Start: 8 @47192 has 22 MA's), (11, 47330), (22, 47573),

Gene: Rie18\_61 Start: 46994, Stop: 47638, Start Num: 8

Candidate Starts for Rie18\_61:

(Start: 1 @46952 has 1 MA's), (Start: 8 @46994 has 22 MA's), (12, 47150),

Gene: RikSengupta\_15 Start: 7375, Stop: 7995, Start Num: 9

Candidate Starts for RikSengupta\_15:

(Start: 2 @7327 has 1 MA's), (Start: 9 @7375 has 2 MA's), (16, 7675), (18, 7699), (22, 7750), (29, 7972),

Gene: Snakehole\_62 Start: 46608, Stop: 47255, Start Num: 8

Candidate Starts for Snakehole\_62:

(Start: 1 @46566 has 1 MA's), (Start: 8 @46608 has 22 MA's), (11, 46746),

Gene: Sparcetus\_15 Start: 7254, Stop: 7874, Start Num: 9

Candidate Starts for Sparcetus\_15:

(Start: 2 @7206 has 1 MA's), (Start: 9 @7254 has 2 MA's), (16, 7554), (18, 7578), (22, 7629), (29, 7851),

Gene: Tedro\_61 Start: 46648, Stop: 47295, Start Num: 8

Candidate Starts for Tedro\_61:

(Start: 1 @46606 has 1 MA's), (Start: 8 @46648 has 22 MA's), (11, 46786),

Gene: TinyMiny\_15 Start: 7204, Stop: 7893, Start Num: 2

Candidate Starts for TinyMiny\_15:

(Start: 2 @7204 has 1 MA's), (Start: 9 @7252 has 2 MA's), (16, 7552), (18, 7576), (19, 7609), (22, 7627), (27, 7840),

Gene: Zeta1847\_60 Start: 41648, Stop: 42310, Start Num: 4

Candidate Starts for Zeta1847\_60:

(Start: 4 @41648 has 1 MA's), (5, 41663), (Start: 7 @41678 has 1 MA's),