Pham 3657


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 3657 Report

This analysis was run 04/05/24 on database version 557.
Pham number 3657 has 25 members, 2 are drafts.
Phages represented in each track:

- Track 1 : Nergal 35
- Track 2 : KiSi_4 $\overline{3}$, LeMond_43
- Track 3 : Nibb_41
- Track 4 : Oscar_43, Scarlett_43
- Track 5 : Chris 41
- Track 6 : MacnCheese_41, Validus_42
- Track 7 : Pixie_40, TBond007_40
- Track 8 : Pharb_39
- Track 9 : ShedlockHolmes_41
- Track 10 : Keshu_42
- Track 11 : Sunflower1121_43
- Track 12 : Yuna_43, Phrank_41, Tierra_41, Cain_41, Krueger_44, Bryler_41
- Track 13 : Phelps̄ODU_40, Ūnicorn_40
- Track 14 : Shadow1_4 $\overline{3}$
- Track 15 : TClif_43


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

The start number called the most often in the published annotations is 9 , it was called in 12 of the 23 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Bryler_41, Cain_41, Krueger_44, MacnCheese_41, Pharb_39, PhelpsODU_40, Phrank_41, ShedlockHolmes_41, Sunflower1121_43, Tierra_41, Unicorn_40, Validus_42, Yuna_43,

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

- Shadow1_43,

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

- Chris_41, Keshu_42, KiSi_43, LeMond_43, Nergal_35, Nibb_41, Oscar_43, Pixie_40, Scarlett_43, TBond007_40, TClif_43,


## Summary by start number:

Start 9:

- Found in 14 of 25 ( $56.0 \%$ ) of genes in pham
- Manual Annotations of this start: 12 of 23
- Called $92.9 \%$ of time when present
- Phage (with cluster) where this start called: Bryler_41 (K6), Cain 41 (K6),

Krueger_44 (K6), MacnCheese_41 (K3), Pharb_39 (K3), PhelpsODU_ 40 (K6),
Phrank_41 (K6), ShedlockHolmes_41 (K3), Sunflower1121_43 (K6), Tierra_41 (K6),
Unicorn_40 (K6), Validus_42 (K1),'Yuna_43 (K6),
Start 10:

- Found in 6 of 25 ( $24.0 \%$ ) of genes in pham
- Manual Annotations of this start: 6 of 23
- Called $100.0 \%$ of time when present
- Phage (with cluster) where this start called: Chris_41 (K1), KiSi_43 (K1),

LeMond_43 (K1), Nibb_41 (K1), Oscar_43 (K1), Scarlett_43 (K1),
Start 11:

- Found in 1 of 25 ( $4.0 \%$ ) of genes in pham
- Manual Annotations of this start: 1 of 23
- Called $100.0 \%$ of time when present
- Phage (with cluster) where this start called: Nergal_35 (AG),

Start 12:

- Found in 3 of 25 ( $12.0 \%$ ) of genes in pham
- Manual Annotations of this start: 3 of 23
- Called $100.0 \%$ of time when present
- Phage (with cluster) where this start called: Keshu_42 (K3), Pixie_40 (K3),

TBond007_40 (K3),
Start 13:

- Found in 1 of 25 ( $4.0 \%$ ) of genes in pham
- No Manual Annotations of this start.
- Called $100.0 \%$ of time when present
- Phage (with cluster) where this start called: TClif_43 (K6),

Start 14:

- Found in 10 of 25 ( $40.0 \%$ ) of genes in pham
- Manual Annotations of this start: 1 of 23
- Called $10.0 \%$ of time when present
- Phage (with cluster) where this start called: Shadow1_43 (K6),


## Summary by clusters:

There are 4 clusters represented in this pham: $\mathrm{K} 3, \mathrm{~K} 1, \mathrm{~K} 6, \mathrm{AG}$,
Info for manual annotations of cluster AG:
-Start number 11 was manually annotated 1 time for cluster AG.
Info for manual annotations of cluster K1:
-Start number 9 was manually annotated 1 time for cluster K1.
-Start number 10 was manually annotated 6 times for cluster K1.

Info for manual annotations of cluster K3:
-Start number 9 was manually annotated 2 times for cluster K3.
-Start number 12 was manually annotated 3 times for cluster K3.
Info for manual annotations of cluster K6:

- Start number 9 was manually annotated 9 times for cluster K6.
-Start number 14 was manually annotated 1 time for cluster K6.


## Gene Information:

Gene: Bryler_41 Start: 31178, Stop: 31354, Start Num: 9
Candidate Starts for Bryler_41:
(Start: 9 @31178 has 12 MA's), (Start: 14 @31181 has 1 MA's), (17, 31193), (18, 31208),
Gene: Cain_41 Start: 31166, Stop: 31342, Start Num: 9
Candidate Starts for Cain_41:
(Start: 9 @31166 has 12 MA's), (Start: 14 @31169 has 1 MA's), (17, 31181), (18, 31196),
Gene: Chris_41 Start: 31764, Stop: 31946, Start Num: 10
Candidate Starts for Chris_41:
$(1,31449),(2,31458),(3,31482),(4,31515),(5,31587),(6,31596)$, (Start: $10 @ 31764$ has 6 MA's),
Gene: Keshu_42 Start: 31745, Stop: 31930, Start Num: 12
Candidate Starts for Keshu_42:
(Start: 12 @31745 has 3 MA's), (18, 31784), (20, 31847),
Gene: KiSi_43 Start: 32086, Stop: 32268, Start Num: 10
Candidate Starts for KiSi_43:
(Start: 10 @32086 has 6 MA's),
Gene: Krueger_44 Start: 32179, Stop: 32355, Start Num: 9
Candidate Starts for Krueger_44:
(Start: 9 @32179 has 12 MA's), (Start: 14 @32182 has 1 MA's), (17, 32194), (18, 32209),
Gene: LeMond_43 Start: 32157, Stop: 32339, Start Num: 10
Candidate Starts for LeMond_43:
(Start: 10 @32157 has 6 MA's),
Gene: MacnCheese_41 Start: 31639, Stop: 31827, Start Num: 9
Candidate Starts for MacnCheese_41:
(Start: 9 @31639 has 12 MA's),
Gene: Nergal_35 Start: 29176, Stop: 29364, Start Num: 11
Candidate Starts for Nergal_35:
(7, 29044), (8, 29125), (Start: 11 @29176 has 1 MA's), (15, 29188), (17, 29203), (19, 29251),
Gene: Nibb_41 Start: 31318, Stop: 31500, Start Num: 10
Candidate Starts for Nibb_41:
(Start: 10 @31318 has 6 MA's),
Gene: Oscar_43 Start: 31992, Stop: 32174, Start Num: 10

Candidate Starts for Oscar_43:
(Start: 10 @31992 has 6 MA's),
Gene: Pharb_39 Start: 30817, Stop: 30999, Start Num: 9
Candidate Starts for Pharb_39:
(Start: 9 @30817 has 12 MA's), (17, 30838),
Gene: PhelpsODU_40 Start: 31207, Stop: 31383, Start Num: 9
Candidate Starts for PhelpsODU_40:
(Start: 9 @31207 has 12 MA's), (Start: 14 @31210 has 1 MA's), ( 18,31237 ),
Gene: Phrank_41 Start: 31155, Stop: 31331, Start Num: 9
Candidate Starts for Phrank_41:
(Start: 9 @31155 has 12 MA's), (Start: 14 @31158 has 1 MA's), (17, 31170), (18, 31185),
Gene: Pixie_40 Start: 31181, Stop: 31366, Start Num: 12
Candidate Starts for Pixie_40:
(Start: 12 @31181 has 3 MA's), (18, 31220), (20, 31283),
Gene: Scarlett_43 Start: 31983, Stop: 32165, Start Num: 10
Candidate Starts for Scarlett_43:
(Start: 10 @31983 has 6 MA's),
Gene: Shadow1_43 Start: 32081, Stop: 32254, Start Num: 14
Candidate Starts for Shadow1_43:
(Start: 9 @32078 has 12 MA's), (Start: 14 @32081 has 1 MA's), (17, 32093),
Gene: ShedlockHolmes_41 Start: 31710, Stop: 31895, Start Num: 9
Candidate Starts for ShedlockHolmes_41:
(Start: 9 @31710 has 12 MA's), ( 16,31728 ), ( 18,31749 ), $(20,31812)$,
Gene: Sunflower1121_43 Start: 32173, Stop: 32349, Start Num: 9
Candidate Starts for Sunflower1121_43:
(Start: 9 @32173 has 12 MA's), (Start: 14 @32176 has 1 MA's), (17, 32188),
Gene: TBond007_40 Start: 31180, Stop: 31365, Start Num: 12
Candidate Starts for TBond007_40:
(Start: 12 @31180 has 3 MA's), (18, 31219), (20, 31282),
Gene: TClif_43 Start: 31608, Stop: 31784, Start Num: 13
Candidate Starts for TClif_43:
$(13,31608)$, $(17,31623)$,
Gene: Tierra_41 Start: 31875, Stop: 32051, Start Num: 9
Candidate Starts for Tierra_41:
(Start: 9 @31875 has 12 MA's), (Start: 14 @31878 has 1 MA's), (17, 31890), (18, 31905),
Gene: Unicorn_40 Start: 31207, Stop: 31383, Start Num: 9
Candidate Starts for Unicorn_40:
(Start: 9 @31207 has 12 MA's), (Start: 14 @31210 has 1 MA's), ( 18,31237 ),
Gene: Validus_42 Start: 31203, Stop: 31385, Start Num: 9
Candidate Starts for Validus_42:
(Start: 9 @31203 has 12 MA's),
Gene: Yuna_43 Start: 32089, Stop: 32265, Start Num: 9
Candidate Starts for Yuna_43:
(Start: 9 @32089 has 12 MA's), (Start: 14 @32092 has 1 MA's), (17, 32104), (18, 32119),

