Pham 158170


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 158170 Report

This analysis was run 04/13/24 on database version 558.
Pham number 158170 has 22 members, 0 are drafts.
Phages represented in each track:

- Track 1 : Corvo_25, Target_27, Snazzy_23, Pinto_27, Zeeculate_24, Atkinbua_26
- Track 2 : Wheeler_80
- Track 3 : Ashballer_24, Trouble_25, Beatrix_24, Conceptll_26, Petruchio_25, SwissCheese_25, GrecoEtereo_26, Ajay_25
- Track 4 : Wheeler_74
- Track 5 : Seabiscuit_76
- Track 6 : Samisti12_29, EGole_30
- Track 7 : JonJames_149
- Track 8 : Yvonnetastic_146
- Track 9 : SpeedDemon_970


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

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

Genes that call this "Most Annotated" start:

- Ajay 25, Ashballer_24, Beatrix_24, ConceptlI_26, GrecoEtereo_26, Petruchio_25, SwissC̄heese_25, Trouble_25,

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

- Atkinbua_26, Corvo_25, Pinto_27, Snazzy_23, Target_27, Zeeculate_24,

Genes that do not have the "Most Annotated" start:
-EGole_30, JonJames_149, Samisti12_29, Seabiscuit_76, SpeedDemon_970, Wheeler_74, Wheeler_ $\overline{8} 0$, Yvonnetastic_146,

## Summary by start number:

Start 4:

- Found in 2 of 22 ( $9.1 \%$ ) of genes in pham
- Manual Annotations of this start: 2 of 22
- Called 100.0\% of time when present
- Phage (with cluster) where this start called: EGole_30 (BE1), Samisti12_29 (BE1),

Start 6:

- Found in 1 of 22 ( $4.5 \%$ ) of genes in pham
- Manual Annotations of this start: 1 of 22
- Called $100.0 \%$ of time when present
- Phage (with cluster) where this start called: Yvonnetastic_146 (DD),

Start 11:

- Found in 1 of 22 ( $4.5 \%$ ) of genes in pham
- Manual Annotations of this start: 1 of 22
- Called $100.0 \%$ of time when present
- Phage (with cluster) where this start called: Wheeler_74 (A1),

Start 14:

- Found in 1 of 22 ( $4.5 \%$ ) of genes in pham
- Manual Annotations of this start: 1 of 22
- Called $100.0 \%$ of time when present
- Phage (with cluster) where this start called: JonJames_149 (DD),

Start 15:

- Found in 2 of 22 ( $9.1 \%$ ) of genes in pham
- Manual Annotations of this start: 1 of 22
- Called $50.0 \%$ of time when present
- Phage (with cluster) where this start called: Wheeler_80 (A1),

Start 16:

- Found in 3 of 22 ( $13.6 \%$ ) of genes in pham
- Manual Annotations of this start: 1 of 22
- Called $33.3 \%$ of time when present
- Phage (with cluster) where this start called: Seabiscuit_76 (A1),

Start 17:

- Found in 1 of 22 ( $4.5 \%$ ) of genes in pham
- Manual Annotations of this start: 1 of 22
- Called $100.0 \%$ of time when present
- Phage (with cluster) where this start called: SpeedDemon_970 (DL),

Start 19:

- Found in 14 of 22 ( $63.6 \%$ ) of genes in pham
- Manual Annotations of this start: 6 of 22
- Called $42.9 \%$ of time when present
- Phage (with cluster) where this start called: Atkinbua_26 (A1), Corvo_25 (A1),

Pinto_27 (A1), Snazzy_23 (A1), Target_27 (A1), Zeeculate_24 (A1),
Start 22:

- Found in 14 of 22 ( $63.6 \%$ ) of genes in pham
- Manual Annotations of this start: 8 of 22
- Called $57.1 \%$ of time when present
- Phage (with cluster) where this start called: Ajay_25 (A1), Ashballer_24 (A1), Beatrix_24 (A1), Conceptll_26 (A1), GrecoEtereo_26 (A1), Petruchio_25 (A1), SwissCheese_25 (A1), Trouble_25 (A1),


## Summary by clusters:

There are 4 clusters represented in this pham: A1, DD, BE1, DL,
Info for manual annotations of cluster A1:

- Start number 11 was manually annotated 1 time for cluster A1.
- Start number 15 was manually annotated 1 time for cluster A1.
- Start number 16 was manually annotated 1 time for cluster A1.
- Start number 19 was manually annotated 6 times for cluster A1.
- Start number 22 was manually annotated 8 times for cluster A1.

Info for manual annotations of cluster BE1:

- Start number 4 was manually annotated 2 times for cluster BE1.

Info for manual annotations of cluster DD:

- Start number 6 was manually annotated 1 time for cluster DD.
- Start number 14 was manually annotated 1 time for cluster DD.

Info for manual annotations of cluster DL:

- Start number 17 was manually annotated 1 time for cluster DL.


## Gene Information:

Gene: Ajay_25 Start: 18878, Stop: 19372, Start Num: 22
Candidate Starts for Ajay_25:
(Start: 19 @18872 has 6 MA's), (Start: 22 @18878 has 8 MA's), (28, 19034), (31, 19094), (40, 19274), (47, 19325),

Gene: Ashballer_24 Start: 18821, Stop: 19315, Start Num: 22
Candidate Starts for Ashballer_24:
(Start: 19 @18815 has 6 MA's), (Start: 22 @18821 has 8 MA's), (28, 18977), (31, 19037), (40, 19217), (47, 19268),

Gene: Atkinbua_26 Start: 18768, Stop: 19268, Start Num: 19
Candidate Starts for Atkinbua_26:
(Start: 19 @18768 has 6 MA's), (Start: 22 @18774 has 8 MA's), (28, 18930), (31, 18990), (40, 19170), (47, 19221),

Gene: Beatrix_24 Start: 19780, Stop: 20274, Start Num: 22
Candidate Starts for Beatrix_24:
(Start: 19 @19774 has 6 MA's), (Start: 22 @19780 has 8 MA's), (28, 19936), (31, 19996), (40, 20176), (47, 20227),

Gene: ConceptlI_26 Start: 19302, Stop: 19796, Start Num: 22
Candidate Starts for Conceptll_26:
(Start: 19 @19296 has 6 MA's), (Start: 22 @19302 has 8 MA's), (28, 19458), (31, 19518), (40, 19698), (47, 19749),

Gene: Corvo_25 Start: 19271, Stop: 19771, Start Num: 19
Candidate Starts for Corvo_25:
(Start: 19 @19271 has 6 MA's), (Start: 22 @19277 has 8 MA's), (28, 19433), (31, 19493), (40, 19673), (47, 19724),

Gene: EGole_30 Start: 14796, Stop: 14044, Start Num: 4
Candidate Starts for EGole_30:
(Start: 4 @14796 has 2 MA's $),(12,14712),(34,14301),(39,14205)$,
Gene: GrecoEtereo_26 Start: 19123, Stop: 19617, Start Num: 22
Candidate Starts for GrecoEtereo_26:
(Start: 19 @19117 has 6 MA's), (Start: 22 @19123 has 8 MA's), (28, 19279), (31, 19339), (40, 19519), (47, 19570),

Gene: JonJames_149 Start: 83143, Stop: 83742, Start Num: 14
Candidate Starts for JonJames_149:
(Start: 14 @83143 has 1 MA's), (Start: 16 @83161 has 1 MA's), (18, 83185), (24, 83338), (25, 83341), (42, 83647),

Gene: Petruchio_25 Start: 18798, Stop: 19292, Start Num: 22
Candidate Starts for Petruchio_25:
(Start: 19 @18792 has 6 MA's), (Start: 22 @18798 has 8 MA's), (28, 18954), (31, 19014), (40, 19194), (47, 19245),

Gene: Pinto_27 Start: 18931, Stop: 19431, Start Num: 19
Candidate Starts for Pinto_27:
(Start: 19 @18931 has 6 MA's), (Start: 22 @18937 has 8 MA's), (28, 19093), (31, 19153), (40, 19333), (47, 19384),

Gene: Samisti12_29 Start: 14403, Stop: 13651, Start Num: 4
Candidate Starts for Samisti12_29:
(Start: 4 @14403 has 2 MA's), (12, 14319), (34, 13908), (39, 13812),
Gene: Seabiscuit_76 Start: 46023, Stop: 45430, Start Num: 16
Candidate Starts for Seabiscuit_76:
(5, 46128), (Start: 15 @46026 has 1 MA's), (Start: 16 @46023 has 1 MA's), (23, 45912), (26, 45831), (44, 45501), (49, 45459),

Gene: Snazzy_23 Start: 18265, Stop: 18765, Start Num: 19
Candidate Starts for Snazzy_23:
(Start: 19 @18265 has 6 MA's), (Start: 22 @18271 has 8 MA's), (28, 18427), (31, 18487), (40, 18667), (47, 18718),

Gene: SpeedDemon_970 Start: 66680, Stop: 66057, Start Num: 17
Candidate Starts for SpeedDemon_970:
(1, 66839), (9, 66737), (Start: 17 @66680 has 1 MA's), (29, 66401), (32, 66314), (33, 66299), (45, 66143), (46, 66131), (50, 66092),

Gene: SwissCheese_25 Start: 18840, Stop: 19334, Start Num: 22
Candidate Starts for SwissCheese_25:
(Start: 19 @18834 has 6 MA's), (Start: 22 @18840 has 8 MA's), (28, 18996), (31, 19056), (40, 19236), (47, 19287),

Gene: Target_27 Start: 19834, Stop: 20334, Start Num: 19
Candidate Starts for Target_27:
(Start: 19 @19834 has 6 MA's), (Start: 22 @19840 has 8 MA's), (28, 19996), (31, 20056), (40, 20236), (47, 20287),

Gene: Trouble_25 Start: 19144, Stop: 19638, Start Num: 22
Candidate Starts for Trouble_25:
(Start: 19 @19138 has 6 MA's), (Start: 22 @19144 has 8 MA's), (28, 19300), (31, 19360), (40, 19540), (47, 19591),

Gene: Wheeler_80 Start: 48775, Stop: 48179, Start Num: 15
Candidate Starts for Wheeler_80:
(5, 48877), (Start: 15 @48775 has 1 MA's), (Start: 16 @48772 has 1 MA's), (23, 48661), (26, 48580), (44, 48250), (49, 48208),

Gene: Wheeler_74 Start: 46185, Stop: 45562, Start Num: 11
Candidate Starts for Wheeler_74:
(2, 46296), (3, 46287), (10, 46194), (Start: 11 @46185 has 1 MA's), (13, 46173), (30, 45846), (37, 45687), $(38,45681),(43,45627)$,

Gene: Yvonnetastic_146 Start: 79771, Stop: 80427, Start Num: 6
Candidate Starts for Yvonnetastic_146:
(Start: 6 @79771 has 1 MA's), (7, 79774), (8, 79777), (20, 79924), (21, 79927), (27, 80071), (35, 80257), (36, 80266), (41, 80323), (48, 80365),

Gene: Zeeculate_24 Start: 19013, Stop: 19513, Start Num: 19
Candidate Starts for Zeeculate_24:
(Start: 19 @19013 has 6 MA's), (Start: 22 @19019 has 8 MA's), (28, 19175), (31, 19235), (40, 19415), (47, 19466),

