Pham 106724


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 106724 Report

This analysis was run 04/05/24 on database version 557.
Pham number 106724 has 13 members, 0 are drafts.
Phages represented in each track:

- Track 1 : Tyrumbra_2
- Track 2 : Antares_3, Jefe_3, Quhwah_3
- Track 3 : Smarties_4, Ariadne_4
- Track 4 : PiperSans̄Nom_3
- Track 5 : Savannah 2
- Track 6 : Fireman_2, RobsFeet_3
- Track 7 : Busephilis_3
- Track 8 : Jayden_2
- Track 9 : Metamorphoo_2


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

The start number called the most often in the published annotations is 24 , it was called in 8 of the 13 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Antares_3, Ariadne_4, Busephilis_3, Jefe_3, PiperSansNom_3, Quhwah_3, Savannah_2, Smarties_4,

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

- Fireman_2, Jayden_2, Metamorphoo_2, RobsFeet_3, Tyrumbra_2,


## Summary by start number:

Start 23:

- Found in 5 of 13 ( $38.5 \%$ ) of genes in pham
- Manual Annotations of this start: 4 of 13
- Called $80.0 \%$ of time when present
- Phage (with cluster) where this start called: Fireman_2 (EC), Metamorphoo_2 (EC), RobsFeet_3 (EC), Tyrumbra_2 (EC),

Start 24:

- Found in 8 of 13 ( $61.5 \%$ ) of genes in pham
- Manual Annotations of this start: 8 of 13
- Called $100.0 \%$ of time when present
- Phage (with cluster) where this start called: Antares 3 (EC), Ariadne_4 (EC),

Busephilis_3 (EC), Jefe_3 (EC), PiperSansNom_3 (EC), Quhwah_3 (EC),
Savannah_2 (EC), Smarties_4 (EC),
Start 25:

- Found in 13 of 13 ( $100.0 \%$ ) of genes in pham
- Manual Annotations of this start: 1 of 13
- Called $7.7 \%$ of time when present
- Phage (with cluster) where this start called: Jayden_2 (EC),


## Summary by clusters:

There is one cluster represented in this pham: EC
Info for manual annotations of cluster EC:
-Start number 23 was manually annotated 4 times for cluster EC.
-Start number 24 was manually annotated 8 times for cluster EC.
-Start number 25 was manually annotated 1 time for cluster EC.

## Gene Information:

Gene: Antares_3 Start: 827, Stop: 1126, Start Num: 24
Candidate Starts for Antares_3:
(11, 677), (12, 680), (13, 689), (16, 734), (18, 758), (22, 794), (Start: 24 @827 has 8 MA's), (Start: 25
@839 has 1 MA's), (26, 845), (27, 878), (31, 944), (33, 950), (38, 1034), (41, 1097), (42, 1109),
Gene: Ariadne_4 Start: 1027, Stop: 1326, Start Num: 24
Candidate Starts for Ariadne_4:
(9, 817), (10, 826), (12, 871), (15, 895), (17, 937), (19, 964), (20, 985), (22, 994), (Start: $24 @ 1027$ has 8 MA's), (Start: 25 @1039 has 1 MA's), (27, 1078), (31, 1144), (33, 1150), (38, 1234), (41, 1297), (42, 1309),

Gene: Busephilis_3 Start: 827, Stop: 1126, Start Num: 24
Candidate Starts for Busephilis_3:
(11, 677), (12, 680), (16, 734), (18, 758), (22, 794), (Start: 24 @827 has 8 MA's), (Start: 25 @839 has 1 MA's), (26, 845), (27, 878), (31, 944), (33, 950), (38, 1034), (41, 1097), (42, 1109),

Gene: Fireman_2 Start: 746, Stop: 1045, Start Num: 23
Candidate Starts for Fireman_2:
(21, 710), (Start: 23 @746 has 4 MA's), (Start: 25 @758 has 1 MA's), (32, 866), (34, 875), (36, 923), $(38,953),(39,965),(41,1019)$,

Gene: Jayden_2 Start: 651, Stop: 935, Start Num: 25
Candidate Starts for Jayden_2:
(1, 126), (2, 240), ( 5,291 ), ( 6,318 ), ( 7,321 ), ( 8,345 ), ( 14,498 ), (Start: 23 @639 has 4 MA's), (Start: 25 @651 has 1 MA's), (28, 702), (29, 735), (30, 744), (33, 762), (35, 783), (36, 816), (37, 825), (38, $846)$, $(39,858),(40,876)$,

Gene: Jefe_3 Start: 827, Stop: 1126, Start Num: 24
Candidate Starts for Jefe_3:
(11, 677), (12, 680), (13, 689), (16, 734), (18, 758), (22, 794), (Start: 24 @827 has 8 MA's), (Start: 25 @839 has 1 MA's), (26, 845), (27, 878), (31, 944), (33, 950), (38, 1034), (41, 1097), (42, 1109),

Gene: Metamorphoo_2 Start: 639, Stop: 938, Start Num: 23
Candidate Starts for Metamorphoo_2:
(Start: 23 @639 has 4 MA's), (Start: 25 @651 has 1 MA's), (28, 702), (32, 759), (34, 768), (36, 816), $(38,846),(39,858),(40,876),(41,912)$,

Gene: PiperSansNom_3 Start: 928, Stop: 1227, Start Num: 24
Candidate Starts for PiperSansNom_3:
(11, 778), (12, 781), (18, 859), (22, 895), (Start: 24 @928 has 8 MA's), (Start: 25 @940 has 1 MA's), (26, 946), (27, 979), (31, 1045), (33, 1051), (38, 1135), (41, 1198), (42, 1210),

Gene: Quhwah_3 Start: 827, Stop: 1126, Start Num: 24 Candidate Starts for Quhwah_3:
(11, 677), (12, 680), ( 13,689 ), ( 16,734 ), ( 18,758 ), ( 22,794 ), (Start: 24 @ 827 has 8 MA's), (Start: 25 @839 has 1 MA's), ( 26,845 ), ( 27,878 ), ( 31,944 ), ( 33,950 ), ( 38,1034 ), ( 41,1097 ), (42, 1109),

Gene: RobsFeet_3 Start: 746, Stop: 1045, Start Num: 23
Candidate Starts for RobsFeet_3:
(21, 710), (Start: 23 @746 has 4 MA's), (Start: 25 @758 has 1 MA's), (32, 866), (34, 875), (36, 923), (38, 953), (39, 965), (41, 1019),

Gene: Savannah_2 Start: 642, Stop: 938, Start Num: 24
Candidate Starts for Savannah_2:
(1, 126), (3, 246), (4, 276), (6, 318), (7, 321), (8, 345), (14, 498), (Start: $24 @ 642$ has 8 MA's), (Start: 25 @654 has 1 MA's), (26, 660), (29, 738), (30, 747), (33, 765), (34, 771), (35, 786), (36, 819), (37, $828)$, $(38,849),(39,861),(41,915)$,

Gene: Smarties_4 Start: 1027, Stop: 1326, Start Num: 24
Candidate Starts for Smarties_4:
( 9,817 ), (10, 826), (12, 871), (15, 895), (17, 937), (19, 964), (20, 985), (22, 994), (Start: 24 @1027 has 8 MA's), (Start: 25 @1039 has 1 MA's), (27, 1078), (31, 1144), (33, 1150), (38, 1234), (41, 1297), (42, 1309),

Gene: Tyrumbra_2 Start: 639, Stop: 938, Start Num: 23
Candidate Starts for Tyrumbra_2:
(Start: 23 @639 has 4 MA's), (Start: 25 @651 has 1 MA's), ( 32,759 ), ( 34,768 ), ( 36,816 ), ( 38,846 ), $(39,858),(41,912)$,

