Pham 159484


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 159484 Report

This analysis was run 04/28/24 on database version 559.
Pham number 159484 has 15 members, 1 are drafts.
Phages represented in each track:

- Track 1 : Sumter_90
- Track 2 : Bexan_89, StrongArm_90
- Track 3 : Sunshine924_96
- Track 4 : Mryolo_87
- Track 5 : Hami1_85
- Track 6 : HanShōtFirst_91
- Track 7 : RidgeCB_93
- Track 8 : HermioneGrange_97
- Track 9 : IgnatiusPatJac_93
- Track 10 : Marge_90
- Track 11 : Pippin_96
- Track 12 : Homines_87
- Track 13 : MPlant7149_92
- Track 14 : Wilkins_94


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

The start number called the most often in the published annotations is 12 , it was called in 5 of the 14 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Bexan_89, HanShotFirst_91, Homines_87, Marge_90, StrongArm_90,

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

- Hami1_85, HermioneGrange_97, MPlant7149_92, Wilkins_94,

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

- IgnatiusPatJac_93, Mryolo_87, Pippin_96, RidgeCB_93, Sumter_90,

Sunshine924_96,
Summary by start number:
Start 7:

- Found in 1 of 15 ( $6.7 \%$ ) of genes in pham
- Manual Annotations of this start: 1 of 14
- Called $100.0 \%$ of time when present
- Phage (with cluster) where this start called: Mryolo_87 (A1),

Start 9:

- Found in 5 of 15 ( $33.3 \%$ ) of genes in pham
- Manual Annotations of this start: 1 of 14
- Called $20.0 \%$ of time when present
- Phage (with cluster) where this start called: HermioneGrange_97 (A1),

Start 11:

- Found in 4 of 15 ( $26.7 \%$ ) of genes in pham
- Manual Annotations of this start: 1 of 14
- Called $25.0 \%$ of time when present
- Phage (with cluster) where this start called: MPlant7149_92 (A1),

Start 12:

- Found in 9 of 15 ( $60.0 \%$ ) of genes in pham
- Manual Annotations of this start: 5 of 14
- Called $55.6 \%$ of time when present
- Phage (with cluster) where this start called: Bexan_89 (A1), HanShotFirst_91 (A1), Homines_87 (A1), Marge_90 (A1), StrongArm_90 ( $\overline{\mathrm{A}} 1$ ),

Start 17:

- Found in 8 of 15 (53.3\% ) of genes in pham
- Manual Annotations of this start: 1 of 14
- Called $25.0 \%$ of time when present
- Phage (with cluster) where this start called: Hami1_85 (A1), IgnatiusPatJac_93 (A1),

Start 19:

- Found in 2 of 15 ( $13.3 \%$ ) of genes in pham
- Manual Annotations of this start: 1 of 14
- Called $50.0 \%$ of time when present
- Phage (with cluster) where this start called: Sunshine924_96 (A1),

Start 20:

- Found in 11 of 15 ( $73.3 \%$ ) of genes in pham
- Manual Annotations of this start: 4 of 14
- Called $36.4 \%$ of time when present
- Phage (with cluster) where this start called: Pippin_96 (A1), RidgeCB_93 (A1),

Sumter_90 (A1), Wilkins_94 (A1),

## Summary by clusters:

There is one cluster represented in this pham: A1
Info for manual annotations of cluster A1:

- Start number 7 was manually annotated 1 time for cluster A1.
- Start number 9 was manually annotated 1 time for cluster A1.
- Start number 11 was manually annotated 1 time for cluster A1.
- Start number 12 was manually annotated 5 times for cluster A1.
- Start number 17 was manually annotated 1 time for cluster A1.
-Start number 19 was manually annotated 1 time for cluster A1.
-Start number 20 was manually annotated 4 times for cluster A1.


## Gene Information:

Gene: Bexan_89 Start: 51788, Stop: 51432, Start Num: 12
Candidate Starts for Bexan_89:
( 3,51947 ), (Start: 12 @ 51788 has 5 MA's), ( 15,51749 ), (Start: $20 @ 51686$ has 4 MA's), (22, 51620), $(23,51596),(25,51560),(35,51485)$,

Gene: Hami1_85 Start: 47344, Stop: 47051, Start Num: 17
Candidate Starts for Hami1_85:
(1, 47665), (Start: 12 @47401 has 5 MA's), (15, 47362), (Start: 17 @47344 has 1 MA's), (Start: 20
@47302 has 4 MA's), (24, 47197), (25, 47176), (28, 47167), (30, 47152), (31, 47143), (32, 47125),
Gene: HanShotFirst_91 Start: 52097, Stop: 51714, Start Num: 12
Candidate Starts for HanShotFirst_91:
(8, 52124), (Start: 9 @52118 has 1 MA's), (Start: 11 @52106 has 1 MA's), (Start: 12 @52097 has 5 MA's), (15, 52058), (Start: 17 @52040 has 1 MA's), (Start: 20 @51998 has 4 MA's), (30, 51848), (31, 51833), (32, 51815),

Gene: HermioneGrange_97 Start: 52867, Stop: 52475, Start Num: 9
Candidate Starts for HermioneGrange_97:
(1, 53116), (2, 53080), (Start: 9 @52867 has 1 MA's), (Start: 11 @52855 has 1 MA's), (Start: 12 @52846 has 5 MA's), (15, 52807), (Start: 17 @52789 has 1 MA's), (24, 52642), (25, 52621), (33, 52558),

Gene: Homines_87 Start: 48201, Stop: 47815, Start Num: 12
Candidate Starts for Homines_87:
(2, 48435), (Start: 12 @48201 has 5 MA's), (16, 48147), (18, 48132), (21, 48093), (22, 48027), (23, 48003), (33, 47898),

Gene: IgnatiusPatJac_93 Start: 50828, Stop: 50589, Start Num: 17
Candidate Starts for IgnatiusPatJac_93:
$(5,50969),(6,50960),(13,50864)$, (Start: $17 @ 50828$ has 1 MA's), (22, 50717), (25, 50657), (26, 50651), (31, 50624), (32, 50606),

Gene: MPlant7149_92 Start: 51080, Stop: 50706, Start Num: 11
Candidate Starts for MPlant7149_92:
(1, 51341), (2, 51305), (Start: 9 @51092 has 1 MA's), (Start: 11 @51080 has 1 MA's), (Start: 12 @51071 has 5 MA's), (18, 51008), (24, 50873), (25, 50852), (33, 50789),

Gene: Marge_90 Start: 50971, Stop: 50612, Start Num: 12
Candidate Starts for Marge_90:
(Start: 12 @ 50971 has 5 MA's), ( 15,50932 ), (Start: 17 @50914 has 1 MA's), (Start: $20 @ 50872$ has 4 MA's), ( 25,50746 ), ( 31,50707 ), $(32,50689)$,

Gene: Mryolo_87 Start: 50262, Stop: 49831, Start Num: 7
Candidate Starts for Mryolo_87:
(Start: 7 @50262 has 1 MA's), (10, 50226), (14, 50184), (Start: 17 @50151 has 1 MA's), (Start: 20 @50109 has 4 MA's), (22, 50043), (23, 50019), $(25,49983)$,

Gene: Pippin_96 Start: 51631, Stop: 51380, Start Num: 20
Candidate Starts for Pippin_96:
(Start: 17 @ 51673 has 1 MA's), (Start: 20 @ 51631 has 4 MA's), ( 29,51496 ), ( 30,51481 ), ( 31,51472 ), $(32,51454)$,

Gene: RidgeCB_93 Start: 50441, Stop: 50169, Start Num: 20
Candidate Starts for RidgeCB_93:
(14, 50516), (Start: 19 @50477 has 1 MA's), (Start: 20 @50441 has 4 MA's), ( 24,50336 ), ( 25,50315 ), $(26,50309),(33,50252)$,

Gene: StrongArm_90 Start: 51916, Stop: 51560, Start Num: 12
Candidate Starts for StrongArm_90:
( 3,52075 ), (Start: 12 @51916 has 5 MA's), ( 15,51877 ), (Start: 20 @51814 has 4 MA's), (22, 51748), $(23,51724),(25,51688),(35,51613)$,

Gene: Sumter_90 Start: 52252, Stop: 52001, Start Num: 20
Candidate Starts for Sumter_90:
( 5,52459 ), (Start: 9 @ 52372 has 1 MA's), (Start: 11 @52360 has 1 MA's), (Start: 20 @52252 has 4 MA's), (28, 52117), (30, 52102), (31, 52093), (32, 52075),

Gene: Sunshine924_96 Start: 50991, Stop: 50692, Start Num: 19
Candidate Starts for Sunshine924_96:
(1, 51318), (2, 51282), (4, 51189), (Start: 9 @51075 has 1 MA's), ( 14,51030 ), (Start: 19 @50991 has 1 MA's), (Start: 20 @50955 has 4 MA's), (27, 50820), (30, 50805), (33, 50757), (34, 50754),

Gene: Wilkins_94 Start: 50507, Stop: 50232, Start Num: 20
Candidate Starts for Wilkins_94:
(2, 50840), (4, 50747), (Start: 12 @50606 has 5 MA's), ( 15,50567 ), (Start: 17 @50549 has 1 MA's), (Start: 20 @50507 has 4 MA's), $(30,50357),(33,50315)$,

