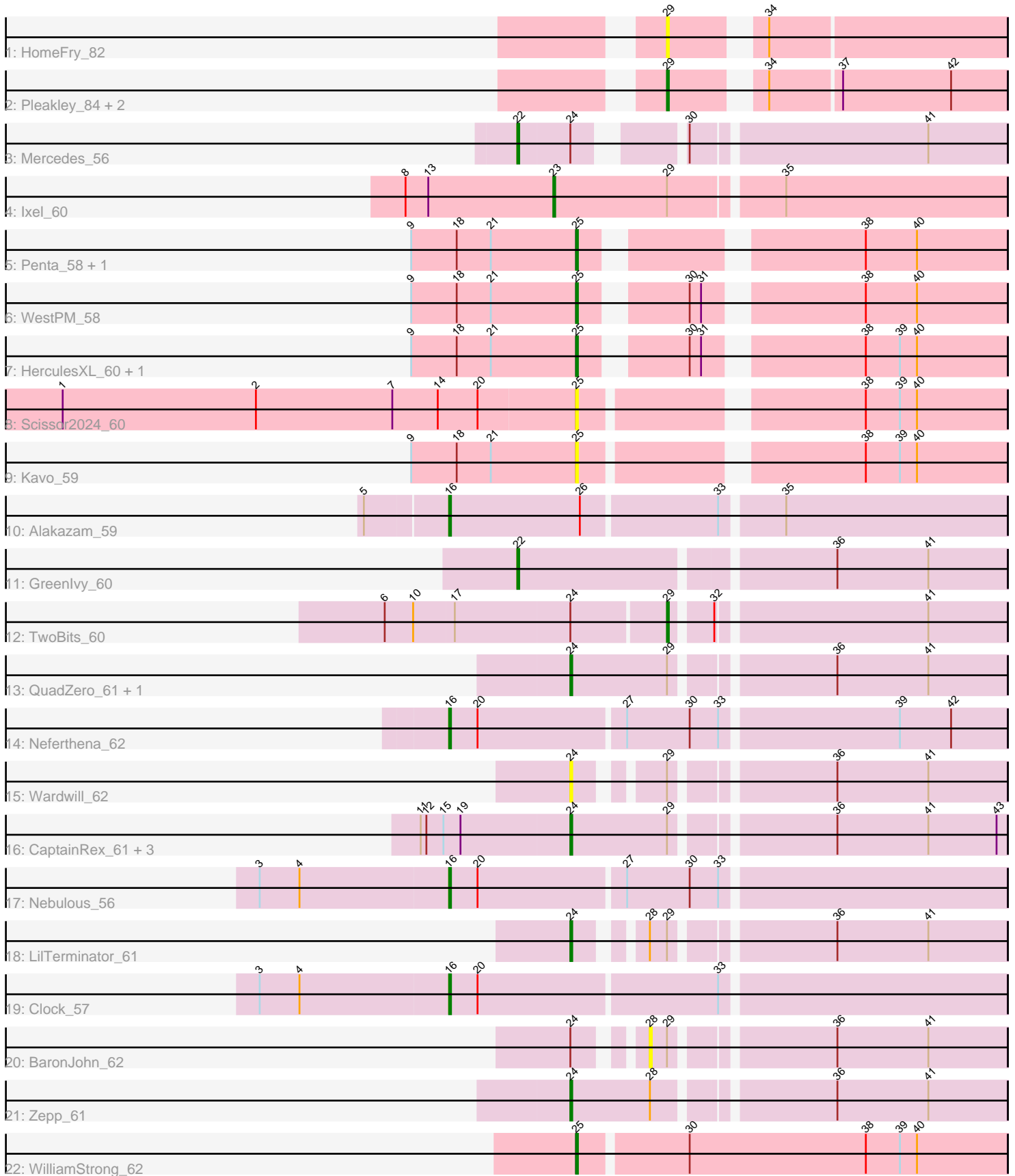


Pham 294980



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 294980 Report

This analysis was run 04/18/26 on database version 643.

Pham number 294980 has 30 members, 7 are drafts.

Phages represented in each track:

- Track 1 : HomeFry\_82
- Track 2 : Pleakley\_84, Scuba\_85, Fury\_84
- Track 3 : Mercedes\_56
- Track 4 : Ixel\_60
- Track 5 : Penta\_58, Schimmels22\_59
- Track 6 : WestPM\_58
- Track 7 : HerculesXL\_60, Tinyman4\_58
- Track 8 : Scissor2024\_60
- Track 9 : Kavo\_59
- Track 10 : Alakazam\_59
- Track 11 : GreenIvy\_60
- Track 12 : TwoBits\_60
- Track 13 : QuadZero\_61, Zayuliv\_61
- Track 14 : Neferthena\_62
- Track 15 : Wardwill\_62
- Track 16 : CaptainRex\_61, Librie\_61, Fulton\_61, Hasitha\_61
- Track 17 : Nebulous\_56
- Track 18 : LilTerminator\_61
- Track 19 : Clock\_57
- Track 20 : BaronJohn\_62
- Track 21 : Zepp\_61
- Track 22 : WilliamStrong\_62

### ***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 23 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- CaptainRex\_61, Fulton\_61, Hasitha\_61, Librie\_61, LilTerminator\_61, QuadZero\_61, Wardwill\_62, Zayuliv\_61, Zepp\_61,

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

- BaronJohn\_62, Mercedes\_56, TwoBits\_60,

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

- Alakazam\_59, Clock\_57, Fury\_84, Greenlvy\_60, HerculesXL\_60, HomeFry\_82, Ixel\_60, Kavo\_59, Nebulous\_56, Neferthena\_62, Penta\_58, Pleakley\_84, Schimmels22\_59, Scissor2024\_60, Scuba\_85, Tinyman4\_58, WestPM\_58, WilliamStrong\_62,

### Summary by start number:

Start 16:

- Found in 4 of 30 ( 13.3% ) of genes in pham
- Manual Annotations of this start: 4 of 23
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Alakazam\_59 (EA5), Clock\_57 (EA5), Nebulous\_56 (EA5), Neferthena\_62 (EA5),

Start 22:

- Found in 2 of 30 ( 6.7% ) of genes in pham
- Manual Annotations of this start: 2 of 23
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Greenlvy\_60 (EA5), Mercedes\_56 (EA),

Start 23:

- Found in 1 of 30 ( 3.3% ) 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: Ixel\_60 (EA11),

Start 24:

- Found in 12 of 30 ( 40.0% ) of genes in pham
- Manual Annotations of this start: 8 of 23
- Called 75.0% of time when present
- Phage (with cluster) where this start called: CaptainRex\_61 (EA5), Fulton\_61 (EA5), Hasitha\_61 (EA5), Librie\_61 (EA5), LilTerminator\_61 (EA5), QuadZero\_61 (EA5), Wardwill\_62 (EA5), Zayuliv\_61 (EA5), Zepp\_61 (EA5),

Start 25:

- Found in 8 of 30 ( 26.7% ) of genes in pham
- Manual Annotations of this start: 5 of 23
- Called 100.0% of time when present
- Phage (with cluster) where this start called: HerculesXL\_60 (EA11), Kavo\_59 (EA11), Penta\_58 (EA11), Schimmels22\_59 (EA11), Scissor2024\_60 (EA11), Tinyman4\_58 (EA11), WestPM\_58 (EA11), WilliamStrong\_62 (EA6),

Start 28:

- Found in 3 of 30 ( 10.0% ) of genes in pham
- No Manual Annotations of this start.
- Called 33.3% of time when present
- Phage (with cluster) where this start called: BaronJohn\_62 (EA5),

Start 29:

- Found in 15 of 30 ( 50.0% ) of genes in pham
- Manual Annotations of this start: 3 of 23

- Called 33.3% of time when present
- Phage (with cluster) where this start called: Fury\_84 (CR5), HomeFry\_82 (CR5), Pleakley\_84 (CR5), Scuba\_85 (CR5), TwoBits\_60 (EA5),

### **Summary by clusters:**

There are 5 clusters represented in this pham: EA11, CR5, EA5, EA, EA6,

Info for manual annotations of cluster CR5:

- Start number 29 was manually annotated 2 times for cluster CR5.

Info for manual annotations of cluster EA:

- Start number 22 was manually annotated 1 time for cluster EA.

Info for manual annotations of cluster EA11:

- Start number 23 was manually annotated 1 time for cluster EA11.
- Start number 25 was manually annotated 4 times for cluster EA11.

Info for manual annotations of cluster EA5:

- Start number 16 was manually annotated 4 times for cluster EA5.
- Start number 22 was manually annotated 1 time for cluster EA5.
- Start number 24 was manually annotated 8 times for cluster EA5.
- Start number 29 was manually annotated 1 time for cluster EA5.

Info for manual annotations of cluster EA6:

- Start number 25 was manually annotated 1 time for cluster EA6.

### **Gene Information:**

Gene: Alakazam\_59 Start: 40230, Stop: 40514, Start Num: 16

Candidate Starts for Alakazam\_59:

(5, 40188), (Start: 16 @40230 has 4 MA's), (26, 40299), (33, 40368), (35, 40398),

Gene: BaronJohn\_62 Start: 39645, Stop: 39818, Start Num: 28

Candidate Starts for BaronJohn\_62:

(Start: 24 @39618 has 8 MA's), (28, 39645), (Start: 29 @39654 has 3 MA's), (36, 39729), (41, 39777),

Gene: CaptainRex\_61 Start: 39013, Stop: 39228, Start Num: 24

Candidate Starts for CaptainRex\_61:

(11, 38935), (12, 38938), (15, 38947), (19, 38956), (Start: 24 @39013 has 8 MA's), (Start: 29 @39064 has 3 MA's), (36, 39139), (41, 39187), (43, 39223),

Gene: Clock\_57 Start: 40673, Stop: 40957, Start Num: 16

Candidate Starts for Clock\_57:

(3, 40574), (4, 40595), (Start: 16 @40673 has 4 MA's), (20, 40688), (33, 40811),

Gene: Fulton\_61 Start: 39014, Stop: 39229, Start Num: 24

Candidate Starts for Fulton\_61:

(11, 38936), (12, 38939), (15, 38948), (19, 38957), (Start: 24 @39014 has 8 MA's), (Start: 29 @39065 has 3 MA's), (36, 39140), (41, 39188), (43, 39224),

Gene: Fury\_84 Start: 56522, Stop: 56361, Start Num: 29  
Candidate Starts for Fury\_84:  
(Start: 29 @56522 has 3 MA's), (34, 56483), (37, 56447), (42, 56390),

Gene: Greenlvy\_60 Start: 39358, Stop: 39603, Start Num: 22  
Candidate Starts for Greenlvy\_60:  
(Start: 22 @39358 has 2 MA's), (36, 39514), (41, 39562),

Gene: Hasitha\_61 Start: 39024, Stop: 39239, Start Num: 24  
Candidate Starts for Hasitha\_61:  
(11, 38946), (12, 38949), (15, 38958), (19, 38967), (Start: 24 @39024 has 8 MA's), (Start: 29 @39075 has 3 MA's), (36, 39150), (41, 39198), (43, 39234),

Gene: HerculesXL\_60 Start: 38481, Stop: 38678, Start Num: 25  
Candidate Starts for HerculesXL\_60:  
(9, 38394), (18, 38418), (21, 38436), (Start: 25 @38481 has 5 MA's), (30, 38526), (31, 38532), (38, 38604), (39, 38622), (40, 38631),

Gene: HomeFry\_82 Start: 55577, Stop: 55416, Start Num: 29  
Candidate Starts for HomeFry\_82:  
(Start: 29 @55577 has 3 MA's), (34, 55538),

Gene: Ixel\_60 Start: 39807, Stop: 40037, Start Num: 23  
Candidate Starts for Ixel\_60:  
(8, 39729), (13, 39741), (Start: 23 @39807 has 1 MA's), (Start: 29 @39867 has 3 MA's), (35, 39921),

Gene: Kavo\_59 Start: 38533, Stop: 38739, Start Num: 25  
Candidate Starts for Kavo\_59:  
(9, 38446), (18, 38470), (21, 38488), (Start: 25 @38533 has 5 MA's), (38, 38665), (39, 38683), (40, 38692),

Gene: Librie\_61 Start: 39013, Stop: 39228, Start Num: 24  
Candidate Starts for Librie\_61:  
(11, 38935), (12, 38938), (15, 38947), (19, 38956), (Start: 24 @39013 has 8 MA's), (Start: 29 @39064 has 3 MA's), (36, 39139), (41, 39187), (43, 39223),

Gene: LilTerminator\_61 Start: 39040, Stop: 39240, Start Num: 24  
Candidate Starts for LilTerminator\_61:  
(Start: 24 @39040 has 8 MA's), (28, 39067), (Start: 29 @39076 has 3 MA's), (36, 39151), (41, 39199),

Gene: Mercedes\_56 Start: 39258, Stop: 39485, Start Num: 22  
Candidate Starts for Mercedes\_56:  
(Start: 22 @39258 has 2 MA's), (Start: 24 @39285 has 8 MA's), (30, 39327), (41, 39444),

Gene: Nebulous\_56 Start: 40430, Stop: 40714, Start Num: 16  
Candidate Starts for Nebulous\_56:  
(3, 40331), (4, 40352), (Start: 16 @40430 has 4 MA's), (20, 40445), (27, 40520), (30, 40553), (33, 40568),

Gene: Neferthena\_62 Start: 40624, Stop: 40908, Start Num: 16  
Candidate Starts for Neferthena\_62:  
(Start: 16 @40624 has 4 MA's), (20, 40639), (27, 40714), (30, 40747), (33, 40762), (39, 40852), (42, 40879),

Gene: Penta\_58 Start: 38690, Stop: 38887, Start Num: 25

Candidate Starts for Penta\_58:

(9, 38603), (18, 38627), (21, 38645), (Start: 25 @38690 has 5 MA's), (38, 38813), (40, 38840),

Gene: Pleakley\_84 Start: 56523, Stop: 56362, Start Num: 29

Candidate Starts for Pleakley\_84:

(Start: 29 @56523 has 3 MA's), (34, 56484), (37, 56448), (42, 56391),

Gene: QuadZero\_61 Start: 39116, Stop: 39331, Start Num: 24

Candidate Starts for QuadZero\_61:

(Start: 24 @39116 has 8 MA's), (Start: 29 @39167 has 3 MA's), (36, 39242), (41, 39290),

Gene: Schimmels22\_59 Start: 38802, Stop: 38999, Start Num: 25

Candidate Starts for Schimmels22\_59:

(9, 38715), (18, 38739), (21, 38757), (Start: 25 @38802 has 5 MA's), (38, 38925), (40, 38952),

Gene: Scissor2024\_60 Start: 38444, Stop: 38650, Start Num: 25

Candidate Starts for Scissor2024\_60:

(1, 38174), (2, 38276), (7, 38348), (14, 38372), (20, 38393), (Start: 25 @38444 has 5 MA's), (38, 38576), (39, 38594), (40, 38603),

Gene: Scuba\_85 Start: 56595, Stop: 56434, Start Num: 29

Candidate Starts for Scuba\_85:

(Start: 29 @56595 has 3 MA's), (34, 56556), (37, 56520), (42, 56463),

Gene: Tinyman4\_58 Start: 38476, Stop: 38673, Start Num: 25

Candidate Starts for Tinyman4\_58:

(9, 38389), (18, 38413), (21, 38431), (Start: 25 @38476 has 5 MA's), (30, 38521), (31, 38527), (38, 38599), (39, 38617), (40, 38626),

Gene: TwoBits\_60 Start: 39449, Stop: 39613, Start Num: 29

Candidate Starts for TwoBits\_60:

(6, 39305), (10, 39320), (17, 39341), (Start: 24 @39401 has 8 MA's), (Start: 29 @39449 has 3 MA's), (32, 39467), (41, 39572),

Gene: Wardwill\_62 Start: 39187, Stop: 39387, Start Num: 24

Candidate Starts for Wardwill\_62:

(Start: 24 @39187 has 8 MA's), (Start: 29 @39223 has 3 MA's), (36, 39298), (41, 39346),

Gene: WestPM\_58 Start: 38661, Stop: 38858, Start Num: 25

Candidate Starts for WestPM\_58:

(9, 38574), (18, 38598), (21, 38616), (Start: 25 @38661 has 5 MA's), (30, 38706), (31, 38712), (38, 38784), (40, 38811),

Gene: WilliamStrong\_62 Start: 39951, Stop: 40172, Start Num: 25

Candidate Starts for WilliamStrong\_62:

(Start: 25 @39951 has 5 MA's), (30, 40005), (38, 40098), (39, 40116), (40, 40125),

Gene: Zayuliv\_61 Start: 39687, Stop: 39902, Start Num: 24

Candidate Starts for Zayuliv\_61:

(Start: 24 @39687 has 8 MA's), (Start: 29 @39738 has 3 MA's), (36, 39813), (41, 39861),

Gene: Zepp\_61 Start: 39245, Stop: 39460, Start Num: 24

Candidate Starts for Zepp\_61:

(Start: 24 @39245 has 8 MA's), (28, 39287), (36, 39371), (41, 39419),