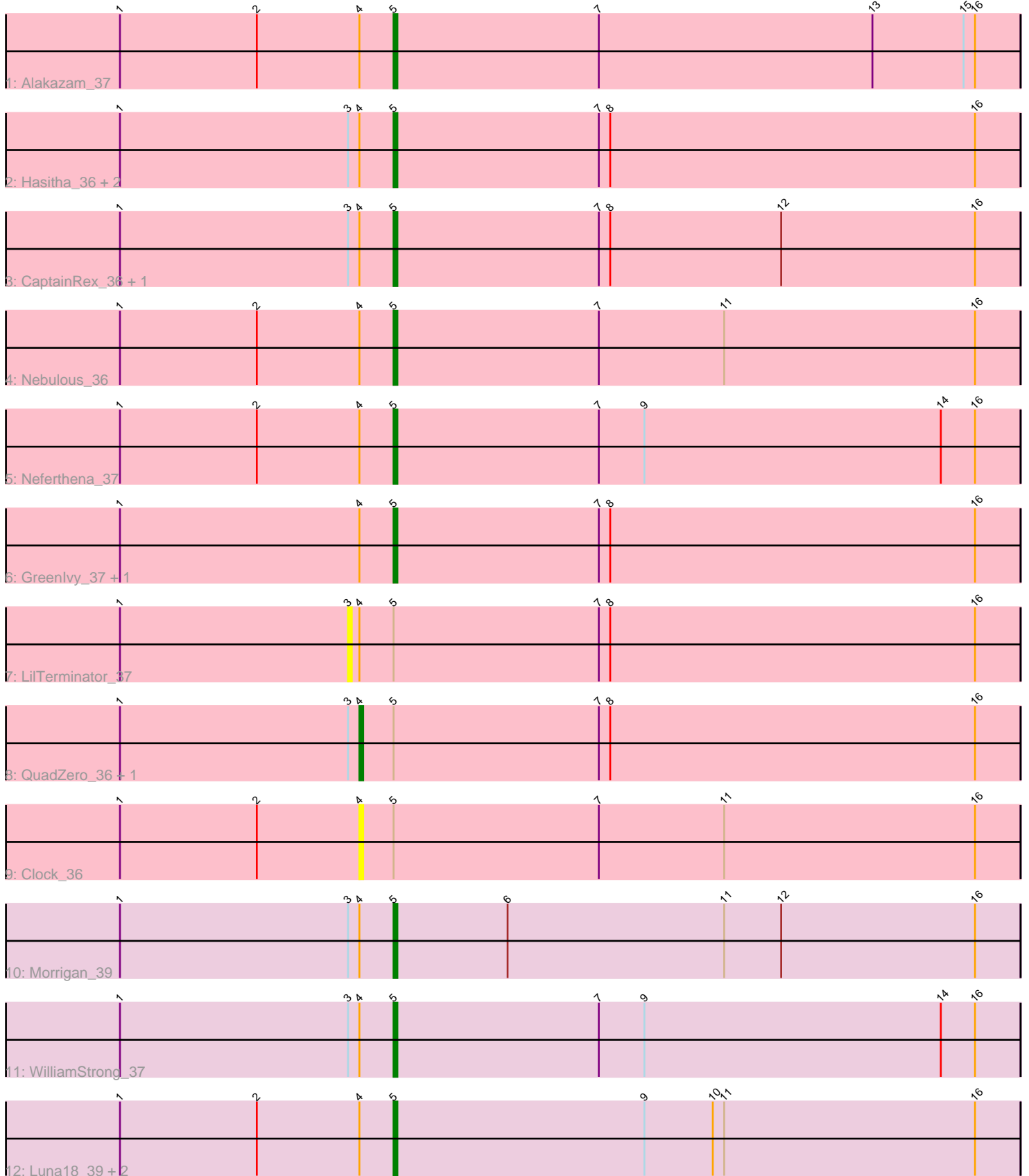# Pham 86939

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 86939 Report

This analysis was run 04/28/24 on database version 559.

Pham number 86939 has 19 members, 4 are drafts.

Phages represented in each track:
• Track 1 : Alakazam_37
• Track 2 : Hasitha_36, Mercedes_33, Zepp_37
• Track 3 : CaptainRex_36, Librie_36
• Track 4 : Nebulous_36
• Track 5 : Neferthena_37
• Track 6 : GreenIvy_37, Zayuliv_36
• Track 7 : LilTerminator_37
• Track 8 : QuadZero_36, Fulton_37
• Track 9 : Clock_36
• Track 10 : Morrigan_39
• Track 11 : WilliamStrong_37
• Track 12 : Luna18_39, Chepli_39, KatChan_39


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

The start number called the most often in the published annotations is 5, it was called in 14 of the 15 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Alakazam_37, CaptainRex_36, Chepli_39, GreenIvy_37, Hasitha_36, KatChan_39, Librie_36, Luna18_39, Mercedes_33, Morrigan_39, Nebulous_36, Neferthena_37, WilliamStrong_37, Zayuliv_36, Zepp_37,

Genes that have the "Most Annotated" start but do not call it:
• Clock_36, Fulton_37, LilTerminator_37, QuadZero_36,

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

**Summary by start number:**

Start 3:
• Found in 10 of 19 ( 52.6% ) of genes in pham
• No Manual Annotations of this start.

• Called 10.0% of time when present
• Phage (with cluster) where this start called: LilTerminator_37 (EA5),

Start 4:
• Found in 19 of 19 ( 100.0% ) of genes in pham
• Manual Annotations of this start: 1 of 15
• Called 15.8% of time when present
• Phage (with cluster) where this start called: Clock_36 (EA5), Fulton_37 (EA5), QuadZero_36 (EA5),

Start 5:
• Found in 19 of 19 ( 100.0% ) of genes in pham
• Manual Annotations of this start: 14 of 15
• Called 78.9% of time when present
• Phage (with cluster) where this start called: Alakazam_37 (EA5), CaptainRex_36 (EA5), Chepli_39 (EA6), GreenIvy_37 (EA5), Hasitha_36 (EA5), KatChan_39 (EA6), Librie_36 (EA5), Luna18_39 (EA6), Mercedes_33 (EA), Morrigan_39 (EA6), Nebulous_36 (EA5), Neferthena_37 (EA5), WilliamStrong_37 (EA6), Zayuliv_36 (EA5), Zepp_37 (EA5),

**Summary by clusters:**

There are 3 clusters represented in this pham: EA, EA5, EA6,

Info for manual annotations of cluster EA:
•Start number 5 was manually annotated 1 time for cluster EA.

Info for manual annotations of cluster EA5:
•Start number 4 was manually annotated 1 time for cluster EA5.
•Start number 5 was manually annotated 8 times for cluster EA5.

Info for manual annotations of cluster EA6:
•Start number 5 was manually annotated 5 times for cluster EA6.


*Gene Information:*
Gene: Alakazam_37 Start: 26808, Stop: 26644, Start Num: 5
Candidate Starts for Alakazam_37:
(1, 26880), (2, 26844), (Start: 4 @26817 has 1 MA's), (Start: 5 @26808 has 14 MA's), (7, 26754), (13, 26682), (15, 26658), (16, 26655),

Gene: CaptainRex_36 Start: 25138, Stop: 24974, Start Num: 5
Candidate Starts for CaptainRex_36:
(1, 25210), (3, 25150), (Start: 4 @25147 has 1 MA's), (Start: 5 @25138 has 14 MA's), (7, 25084), (8, 25081), (12, 25036), (16, 24985),

Gene: Chepli_39 Start: 26473, Stop: 26309, Start Num: 5
Candidate Starts for Chepli_39:
(1, 26545), (2, 26509), (Start: 4 @26482 has 1 MA's), (Start: 5 @26473 has 14 MA's), (9, 26407), (10, 26389), (11, 26386), (16, 26320),

Gene: Clock_36 Start: 27974, Stop: 27801, Start Num: 4
Candidate Starts for Clock_36:
(1, 28037), (2, 28001), (Start: 4 @27974 has 1 MA's), (Start: 5 @27965 has 14 MA's), (7, 27911), (11, 27878), (16, 27812),

Gene: Fulton_37 Start: 25148, Stop: 24975, Start Num: 4
Candidate Starts for Fulton_37:
(1, 25211), (3, 25151), (Start: 4 @25148 has 1 MA's), (Start: 5 @25139 has 14 MA's), (7, 25085), (8, 25082), (16, 24986),

Gene: GreenIvy_37 Start: 25728, Stop: 25564, Start Num: 5
Candidate Starts for GreenIvy_37:
(1, 25800), (Start: 4 @25737 has 1 MA's), (Start: 5 @25728 has 14 MA's), (7, 25674), (8, 25671), (16, 25575),

Gene: Hasitha_36 Start: 25151, Stop: 24987, Start Num: 5
Candidate Starts for Hasitha_36:
(1, 25223), (3, 25163), (Start: 4 @25160 has 1 MA's), (Start: 5 @25151 has 14 MA's), (7, 25097), (8, 25094), (16, 24998),

Gene: KatChan_39 Start: 26485, Stop: 26321, Start Num: 5
Candidate Starts for KatChan_39:
(1, 26557), (2, 26521), (Start: 4 @26494 has 1 MA's), (Start: 5 @26485 has 14 MA's), (9, 26419), (10, 26401), (11, 26398), (16, 26332),

Gene: Librie_36 Start: 25138, Stop: 24974, Start Num: 5
Candidate Starts for Librie_36:
(1, 25210), (3, 25150), (Start: 4 @25147 has 1 MA's), (Start: 5 @25138 has 14 MA's), (7, 25084), (8, 25081), (12, 25036), (16, 24985),

Gene: LilTerminator_37 Start: 25172, Stop: 24996, Start Num: 3
Candidate Starts for LilTerminator_37:
(1, 25232), (3, 25172), (Start: 4 @25169 has 1 MA's), (Start: 5 @25160 has 14 MA's), (7, 25106), (8, 25103), (16, 25007),

Gene: Luna18_39 Start: 26485, Stop: 26321, Start Num: 5
Candidate Starts for Luna18_39:
(1, 26557), (2, 26521), (Start: 4 @26494 has 1 MA's), (Start: 5 @26485 has 14 MA's), (9, 26419), (10, 26401), (11, 26398), (16, 26332),

Gene: Mercedes_33 Start: 24121, Stop: 23957, Start Num: 5
Candidate Starts for Mercedes_33:
(1, 24193), (3, 24133), (Start: 4 @24130 has 1 MA's), (Start: 5 @24121 has 14 MA's), (7, 24067), (8, 24064), (16, 23968),

Gene: Morrigan_39 Start: 26506, Stop: 26342, Start Num: 5
Candidate Starts for Morrigan_39:
(1, 26578), (3, 26518), (Start: 4 @26515 has 1 MA's), (Start: 5 @26506 has 14 MA's), (6, 26476), (11, 26419), (12, 26404), (16, 26353),

Gene: Nebulous_36 Start: 28146, Stop: 27982, Start Num: 5
Candidate Starts for Nebulous_36:

(1, 28218), (2, 28182), (Start: 4 @28155 has 1 MA's), (Start: 5 @28146 has 14 MA's), (7, 28092), (11, 28059), (16, 27993),

Gene: Neferthena_37 Start: 27344, Stop: 27180, Start Num: 5
Candidate Starts for Neferthena_37:
(1, 27416), (2, 27380), (Start: 4 @27353 has 1 MA's), (Start: 5 @27344 has 14 MA's), (7, 27290), (9, 27278), (14, 27200), (16, 27191),

Gene: QuadZero_36 Start: 25174, Stop: 25001, Start Num: 4
Candidate Starts for QuadZero_36:
(1, 25237), (3, 25177), (Start: 4 @25174 has 1 MA's), (Start: 5 @25165 has 14 MA's), (7, 25111), (8, 25108), (16, 25012),

Gene: WilliamStrong_37 Start: 26788, Stop: 26624, Start Num: 5
Candidate Starts for WilliamStrong_37:
(1, 26860), (3, 26800), (Start: 4 @26797 has 1 MA's), (Start: 5 @26788 has 14 MA's), (7, 26734), (9, 26722), (14, 26644), (16, 26635),

Gene: Zayuliv_36 Start: 25738, Stop: 25574, Start Num: 5
Candidate Starts for Zayuliv_36:
(1, 25810), (Start: 4 @25747 has 1 MA's), (Start: 5 @25738 has 14 MA's), (7, 25684), (8, 25681), (16, 25585),

Gene: Zepp_37 Start: 25197, Stop: 25033, Start Num: 5
Candidate Starts for Zepp_37:
(1, 25269), (3, 25209), (Start: 4 @25206 has 1 MA's), (Start: 5 @25197 has 14 MA's), (7, 25143), (8, 25140), (16, 25044),