Pham 86206


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 86206 Report

This analysis was run 04/05/24 on database version 557.
Pham number 86206 has 32 members, 2 are drafts.
Phages represented in each track:

- Track 1 : MiaZeal_63, Dallas_65, JuicyJay_65, Halley_67, EricMillard_66,

Odette_64, Minerva_72, HokkenD_59, ThreēRngTarjay_64, Porcelain_62,
Optimus_71, Thibault_59, Schatzie_61, Ariel_63, Ejimix_66, Zelink_64,
Superphikiman_64, DmpstrDiver_65̄, NihilNomen_66, Courthouse_63, Phoebus_65, Squint_63, Bombitas_63, Beem- 66

- Track 2 : Dove_61, Duke13_6̄
- Track 3 : Omega_69, LittleE_66
- Track 4 : Lucky2013_64, Huğhesyang_65
- Track 5 : Constella_54
- Track 6 : Yeet_63


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

The start number called the most often in the published annotations is 4 , it was called in 27 of the 30 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Ariel_63, Beem_66, Bombitas_63, Constella_54, Courthouse_63, Dallas_65, DmpstrDiver_65, Ejimix_66, Eric̄Millard_66, Hālley_67, HokkenD_59, Juicy Jay_65, LittleE_66, MiaZeal_63, Minerva_72, NihilNomen_66, Odette_64, Omega_69, Optimus_71, Phoebus_65, Porcelain_62, Schatziè_61, Squint 63, Superphikiman_64, Thibault_59, ThreeRngTarjay_64, Yeet_6̄3, Zelink_64,

Genes that have the "Most Annotated" start but do not call it:
-Dove_61, Duke13_69, Hughesyang_65, Lucky2013_64,
Genes that do not have the "Most Annotated" start:
-

## Summary by start number:

Start 3:

- Found in 29 of 32 ( $90.6 \%$ ) of genes in pham
- Manual Annotations of this start: 2 of 30
- Called 6.9\% of time when present
- Phage (with cluster) where this start called: Hughesyang_65 (J), Lucky2013_64 (J),

Start 4:

- Found in 32 of 32 ( $100.0 \%$ ) of genes in pham
- Manual Annotations of this start: 27 of 30
- Called $87.5 \%$ of time when present
- Phage (with cluster) where this start called: Ariel_63 (J), Beem_66 (J), Bombitas_63
(J), Constella_54 (J), Courthouse_63 (J), Dallas_65 (J), DmpstrD̄iver_65 (J),

Ejimix_66 (J), EricMillard_66 (J), Halley_67 (J), HokkenD_59 (J), JuicyJay_65 (J), LittleE_66 (J), MiaZeal_63 (J), Minerva_72 (J), NihilNomen_66 (J), Odette_64 (J), Omega_69 (J), Optimus_71 (J), Phoebus_65 (J), Porcelain_62 (J), Schatzie_61 (J), Squint_63 (J), Superphikiman_64 (J), Thibault_59 (J), ThreeRngTarjay_64 (J), Yeet_63 (J), Zelink_64 (J),

Start 5:

- Found in 28 of 32 ( 87.5\%) of genes in pham
- Manual Annotations of this start: 1 of 30
- Called $7.1 \%$ of time when present
- Phage (with cluster) where this start called: Dove_61 (J), Duke13_69 (J),


## Summary by clusters:

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

- Start number 3 was manually annotated 2 times for cluster J.
- Start number 4 was manually annotated 27 times for cluster J.
- Start number 5 was manually annotated 1 time for cluster J.


## Gene Information:

Gene: Ariel_63 Start: 44138, Stop: 43851, Start Num: 4
Candidate Starts for Ariel_63:
(Start: 3 @44141 has 2 MA's), (Start: 4 @44138 has 27 MA's), (Start: 5 @44108 has 1 MA's), (7, 44003), (9, 43982), (11, 43946), (12, 43925),

Gene: Beem_66 Start: 48939, Stop: 48652, Start Num: 4
Candidate Starts for Beem_66:
(Start: 3 @48942 has 2 MA's), (Start: 4 @48939 has 27 MA's), (Start: 5 @48909 has 1 MA's), (7, 48804), (9, 48783), (11, 48747), (12, 48726),

Gene: Bombitas_63 Start: 48535, Stop: 48248, Start Num: 4
Candidate Starts for Bombitas_63:
(Start: 3 @48538 has 2 MA's), (Start: 4 @48535 has 27 MA's), (Start: 5 @48505 has 1 MA's), (7, 48400), (9, 48379), (11, 48343), (12, 48322),

Gene: Constella_54 Start: 43889, Stop: 43590, Start Num: 4
Candidate Starts for Constella_54:
(1, 43913), (2, 43907), (Start: 4 @43889 has 27 MA's), (6, 43775), (8, 43742), (12, 43676),

Gene: Courthouse_63 Start: 44542, Stop: 44255, Start Num: 4
Candidate Starts for Courthouse_63:
(Start: 3 @44545 has 2 MA's), (Start: 4 @44542 has 27 MA's), (Start: 5 @44512 has 1 MA's), (7, 44407), (9, 44386), (11, 44350), (12, 44329),

Gene: Dallas_65 Start: 47860, Stop: 47573, Start Num: 4
Candidate Starts for Dallas_65:
(Start: 3 @47863 has 2 MA's), (Start: 4 @47860 has 27 MA's), (Start: 5 @47830 has 1 MA's), (7, 47725), (9, 47704), (11, 47668), (12, 47647),

Gene: DmpstrDiver_65 Start: 48287, Stop: 48000, Start Num: 4
Candidate Starts for DmpstrDiver_65:
(Start: 3 @48290 has 2 MA's), (Start: 4 @48287 has 27 MA's), (Start: 5 @48257 has 1 MA's), (7, 48152), (9, 48131), (11, 48095), (12, 48074),

Gene: Dove_61 Start: 46771, Stop: 46514, Start Num: 5
Candidate Starts for Dove_61:
(Start: 3 @46804 has 2 MA's), (Start: 4 @46801 has 27 MA's), (Start: 5 @46771 has 1 MA's), (7, 46666), (9, 46645), (11, 46609), (12, 46588),

Gene: Duke13_69 Start: 48777, Stop: 48520, Start Num: 5
Candidate Starts for Duke13_69:
(Start: 3 @48810 has 2 MA's), (Start: 4 @48807 has 27 MA's), (Start: 5 @48777 has 1 MA's), (7, 48672), (9, 48651), (11, 48615), (12, 48594),

Gene: Ejimix_66 Start: 49725, Stop: 49438, Start Num: 4
Candidate Starts for Ejimix_66:
(Start: 3 @49728 has 2 MA's), (Start: 4 @49725 has 27 MA's), (Start: 5 @49695 has 1 MA's), (7, 49590), (9, 49569), (11, 49533), (12, 49512),

Gene: EricMillard_66 Start: 49226, Stop: 48939, Start Num: 4
Candidate Starts for EricMillard_66:
(Start: 3 @49229 has 2 MA's), (Start: 4 @49226 has 27 MA's), (Start: 5 @49196 has 1 MA's), (7, 49091), (9, 49070), (11, 49034), (12, 49013),

Gene: Halley_67 Start: 48939, Stop: 48652, Start Num: 4
Candidate Starts for Halley_67:
(Start: 3 @48942 has 2 MA's), (Start: 4 @48939 has 27 MA's), (Start: 5 @48909 has 1 MA's), (7, 48804), (9, 48783), (11, 48747), (12, 48726),

Gene: HokkenD_59 Start: 47208, Stop: 46921, Start Num: 4
Candidate Starts for HokkenD_59:
(Start: 3 @47211 has 2 MA's), (Start: 4 @47208 has 27 MA's), (Start: 5 @47178 has 1 MA's), (7, 47073), (9, 47052), (11, 47016), (12, 46995),

Gene: Hughesyang_65 Start: 48871, Stop: 48581, Start Num: 3
Candidate Starts for Hughesyang_65:
(Start: 3 @48871 has 2 MA's), (Start: 4 @48868 has 27 MA's), (Start: 5 @48838 has 1 MA's), (7, 48733), (9, 48712), (11, 48676), (12, 48655),

Gene: JuicyJay_65 Start: 50073, Stop: 49786, Start Num: 4 Candidate Starts for JuicyJay_65:
(Start: 3 @50076 has 2 MA's), (Start: 4 @50073 has 27 MA's), (Start: 5 @50043 has 1 MA's), (7, 49938), (9, 49917), (11, 49881), (12, 49860),

Gene: LittleE_66 Start: 47483, Stop: 47259, Start Num: 4 Candidate Starts for LittleE_66:
(Start: 4 @47483 has 27 MA's), (7, 47348), (9, 47327), (10, 47321), (11, 47291),
Gene: Lucky2013_64 Start: 44681, Stop: 44391, Start Num: 3
Candidate Starts for Lucky2013_64:
(Start: 3 @44681 has 2 MA's), (Start: 4 @44678 has 27 MA's), (Start: 5 @44648 has 1 MA's), (7, 44543), (9, 44522), (11, 44486), (12, 44465),

Gene: MiaZeal_63 Start: 44353, Stop: 44066, Start Num: 4
Candidate Starts for MiaZeal_63:
(Start: 3 @44356 has 2 MA's), (Start: 4 @44353 has 27 MA's), (Start: 5 @44323 has 1 MA's), (7, 44218), (9, 44197), (11, 44161), (12, 44140),

Gene: Minerva_72 Start: 50355, Stop: 50068, Start Num: 4 Candidate Starts for Minerva_72:
(Start: 3 @ 50358 has 2 MA's), (Start: 4 @ 50355 has 27 MA's), (Start: 5 @50325 has 1 MA's), (7, 50220), (9, 50199), (11, 50163), (12, 50142),

Gene: NihilNomen_66 Start: 49026, Stop: 48739, Start Num: 4
Candidate Starts for NihilNomen_66:
(Start: 3 @49029 has 2 MA's), (Start: 4 @49026 has 27 MA's), (Start: 5 @48996 has 1 MA's), (7, 48891), (9, 48870), (11, 48834), (12, 48813),

Gene: Odette_64 Start: 48069, Stop: 47782, Start Num: 4 Candidate Starts for Odette_64:
(Start: 3 @48072 has 2 MA's), (Start: 4 @48069 has 27 MA's), (Start: 5 @48039 has 1 MA's), (7, 47934), (9, 47913), (11, 47877), (12, 47856),

Gene: Omega_69 Start: 49218, Stop: 48994, Start Num: 4
Candidate Starts for Omega_69:
(Start: 4 @49218 has 27 MA's), (7, 49083), (9, 49062), (10, 49056), (11, 49026),
Gene: Optimus_71 Start: 49941, Stop: 49654, Start Num: 4 Candidate Starts for Optimus_71:
(Start: 3 @49944 has 2 MA's), (Start: 4 @49941 has 27 MA's), (Start: 5 @49911 has 1 MA's), (7, 49806), (9, 49785), (11, 49749), (12, 49728),

Gene: Phoebus_65 Start: 49227, Stop: 48940, Start Num: 4 Candidate Starts for Phoebus_65:
(Start: 3 @49230 has 2 MA's), (Start: 4 @49227 has 27 MA's), (Start: 5 @49197 has 1 MA's), (7, 49092), (9, 49071), (11, 49035), (12, 49014),

Gene: Porcelain_62 Start: 44353, Stop: 44066, Start Num: 4
Candidate Starts for Porcelain_62:
(Start: 3 @44356 has 2 MA's), (Start: 4 @44353 has 27 MA's), (Start: 5 @44323 has 1 MA's), (7, 44218), (9, 44197), (11, 44161), (12, 44140),

Gene: Schatzie_61 Start: 47816, Stop: 47529, Start Num: 4 Candidate Starts for Schatzie_61:
(Start: 3 @47819 has 2 MA's), (Start: 4 @47816 has 27 MA's), (Start: 5 @47786 has 1 MA's), (7, 47681), (9, 47660), (11, 47624), (12, 47603),

Gene: Squint_63 Start: 44472, Stop: 44185, Start Num: 4
Candidate Starts for Squint_63:
(Start: 3 @44475 has 2 MA's), (Start: 4 @44472 has 27 MA's), (Start: 5 @44442 has 1 MA's), (7, 44337), (9, 44316), (11, 44280), (12, 44259),

Gene: Superphikiman_64 Start: 44544, Stop: 44257, Start Num: 4
Candidate Starts for Superphikiman_64:
(Start: 3 @44547 has 2 MA's), (Start: 4 @44544 has 27 MA's), (Start: 5 @44514 has 1 MA's), (7, 44409), (9, 44388), (11, 44352), (12, 44331),

Gene: Thibault_59 Start: 45531, Stop: 45244, Start Num: 4
Candidate Starts for Thibault_59:
(Start: 3 @45534 has 2 MA's), (Start: 4 @45531 has 27 MA's), (Start: 5 @45501 has 1 MA's), (7, 45396), (9, 45375), (11, 45339), (12, 45318),

Gene: ThreeRngTarjay_64 Start: 49102, Stop: 48815, Start Num: 4
Candidate Starts for ThreeRngTarjay_64:
(Start: 3 @49105 has 2 MA's), (Start: 4 @49102 has 27 MA's), (Start: 5 @49072 has 1 MA's), (7, 48967), (9, 48946), (11, 48910), (12, 48889),

Gene: Yeet_63 Start: 47631, Stop: 47401, Start Num: 4
Candidate Starts for Yeet_63:
(Start: 3 @47634 has 2 MA's), (Start: 4 @47631 has 27 MA's), (7, 47496), (9, 47475), (11, 47439),
Gene: Zelink_64 Start: 49415, Stop: 49128, Start Num: 4
Candidate Starts for Zelink_64:
(Start: 3 @49418 has 2 MA's), (Start: 4 @49415 has 27 MA's), (Start: 5 @49385 has 1 MA's), (7, 49280), (9, 49259), (11, 49223), (12, 49202),

