



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 157975 Report

This analysis was run 04/13/24 on database version 558.

Pham number 157975 has 45 members, 9 are drafts.

Phages represented in each track:

- Track 1 : Inked\_69
- Track 2 : AreFloNak\_66, ScienceWizSam\_64, Gordon\_61, DevitoJr\_63, Darby\_62, Nivinsha\_66, Tatanka\_59, Synepsis\_62
- Track 3 : Niktson\_64, ElephantMan\_64, Teacup\_65
- Track 4 : Brunswick\_64
- Track 5 : Breylor17\_63, CastorTray\_67, Trustiboi\_63, Nightmare\_65
- Track 6 : Issa\_64
- Track 7 : CapnMurica\_61
- Track 8 : MiniBagel\_61, Tenno\_64
- Track 9 : Shepard\_69
- Track 10 : Tokki\_73
- Track 11 : LilHuddy\_68
- Track 12 : Giantsbane\_67
- Track 13 : Phaby\_68
- Track 14 : Caterpillar\_63
- Track 15 : MediumFry\_64
- Track 16 : Makai\_67, Truckee\_65
- Track 17 : Salk\_66, BronxBay\_66, Sloopyjoe\_66, Stayer\_66, Linda\_66, Michelle\_66, StarLord\_66, Shiba\_65, MrAaronian\_66, DoctorPepper\_66, Djungelskog\_65
- Track 18 : Egad\_66
- Track 19 : Raunak\_67
- Track 20 : Sporto\_65
- Track 21 : ProfFrink\_67

### ***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 23 of the 36 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- BronxBay\_66, Brunswick\_64, Caterpillar\_63, Djungelskog\_65, DoctorPepper\_66, ElephantMan\_64, Giantsbane\_67, Inked\_69, LilHuddy\_68, Linda\_66, Makai\_67, MediumFry\_64, Michelle\_66, MrAaronian\_66, Niktson\_64, ProfFrink\_67, Salk\_66,

Shepard\_69, Shiba\_65, Sloopyjoe\_66, Sporto\_65, StarLord\_66, Stayer\_66, Teacup\_65, Tokki\_73, Truckee\_65,

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

- Egad\_66, Phaby\_68, Raunak\_67,

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

- AreFloNak\_66, Breylor17\_63, CapnMurica\_61, CastorTray\_67, Darby\_62, DevitoJr\_63, Gordon\_61, Issa\_64, MiniBagel\_61, Nightmare\_65, Nivinsha\_66, ScienceWizSam\_64, Synepsis\_62, Tatanka\_59, Tenno\_64, Trustiboi\_63,

### Summary by start number:

Start 3:

- Found in 20 of 45 ( 44.4% ) of genes in pham
- Manual Annotations of this start: 12 of 36
- Called 80.0% of time when present
- Phage (with cluster) where this start called: AreFloNak\_66 (AU1), Breylor17\_63 (AU1), CapnMurica\_61 (AU1), CastorTray\_67 (AU1), Darby\_62 (AU1), DevitoJr\_63 (AU1), Gordon\_61 (AU1), Issa\_64 (AU1), MiniBagel\_61 (AU1), Nightmare\_65 (AU1), Nivinsha\_66 (AU1), ScienceWizSam\_64 (AU1), Synepsis\_62 (AU1), Tatanka\_59 (AU1), Tenno\_64 (AU1), Trustiboi\_63 (AU1),

Start 4:

- Found in 29 of 45 ( 64.4% ) of genes in pham
- Manual Annotations of this start: 23 of 36
- Called 89.7% of time when present
- Phage (with cluster) where this start called: BronxBay\_66 (AW), Brunswick\_64 (AU1), Caterpillar\_63 (AU4), Djungelskog\_65 (AW), DoctorPepper\_66 (AW), ElephantMan\_64 (AU1), Giantsbane\_67 (AU2), Inked\_69 (AU), LilHuddy\_68 (AU2), Linda\_66 (AW), Makai\_67 (AU5), MediumFry\_64 (AU4), Michelle\_66 (AW), MrAaronian\_66 (AW), Niktson\_64 (AU1), ProfFrink\_67 (AW), Salk\_66 (AW), Shepard\_69 (AU2), Shiba\_65 (AW), Sloopyjoe\_66 (AW), Sporto\_65 (AW), StarLord\_66 (AW), Stayer\_66 (AW), Teacup\_65 (AU1), Tokki\_73 (AU2), Truckee\_65 (AU5),

Start 5:

- Found in 13 of 45 ( 28.9% ) of genes in pham
- Manual Annotations of this start: 1 of 36
- Called 7.7% of time when present
- Phage (with cluster) where this start called: Egad\_66 (AW),

Start 6:

- Found in 3 of 45 ( 6.7% ) of genes in pham
- No Manual Annotations of this start.
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Raunak\_67 (AW),

Start 7:

- Found in 30 of 45 ( 66.7% ) of genes in pham
- No Manual Annotations of this start.
- Called 3.3% of time when present
- Phage (with cluster) where this start called: Phaby\_68 (AU2),

## Summary by clusters:

There are 6 clusters represented in this pham: AU1, AU2, AU, AU4, AW, AU5,

Info for manual annotations of cluster AU:

- Start number 4 was manually annotated 1 time for cluster AU.

Info for manual annotations of cluster AU1:

- Start number 3 was manually annotated 12 times for cluster AU1.
- Start number 4 was manually annotated 3 times for cluster AU1.

Info for manual annotations of cluster AU2:

- Start number 4 was manually annotated 4 times for cluster AU2.

Info for manual annotations of cluster AU4:

- Start number 4 was manually annotated 2 times for cluster AU4.

Info for manual annotations of cluster AU5:

- Start number 4 was manually annotated 2 times for cluster AU5.

Info for manual annotations of cluster AW:

- Start number 4 was manually annotated 11 times for cluster AW.
- Start number 5 was manually annotated 1 time for cluster AW.

## Gene Information:

Gene: AreFloNak\_66 Start: 44576, Stop: 44890, Start Num: 3

Candidate Starts for AreFloNak\_66:

(Start: 3 @44576 has 12 MA's), (7, 44645), (15, 44708), (18, 44759),

Gene: Breylor17\_63 Start: 45151, Stop: 45465, Start Num: 3

Candidate Starts for Breylor17\_63:

(Start: 3 @45151 has 12 MA's), (7, 45220), (12, 45265), (15, 45283), (18, 45334),

Gene: BronxBay\_66 Start: 42743, Stop: 43054, Start Num: 4

Candidate Starts for BronxBay\_66:

(2, 42701), (Start: 4 @42743 has 23 MA's), (Start: 5 @42776 has 1 MA's), (16, 42893), (23, 43016), (24, 43028),

Gene: Brunswick\_64 Start: 44599, Stop: 44910, Start Num: 4

Candidate Starts for Brunswick\_64:

(Start: 4 @44599 has 23 MA's), (7, 44665), (9, 44689), (15, 44728), (20, 44827),

Gene: CapnMurica\_61 Start: 45337, Stop: 45651, Start Num: 3

Candidate Starts for CapnMurica\_61:

(Start: 3 @45337 has 12 MA's), (7, 45406), (15, 45469), (17, 45493), (18, 45520),

Gene: CastorTray\_67 Start: 45340, Stop: 45654, Start Num: 3

Candidate Starts for CastorTray\_67:

(Start: 3 @45340 has 12 MA's), (7, 45409), (12, 45454), (15, 45472), (18, 45523),

Gene: Caterpillar\_63 Start: 44268, Stop: 44546, Start Num: 4

Candidate Starts for Caterpillar\_63:

(Start: 4 @44268 has 23 MA's), (7, 44307), (8, 44313), (22, 44505),

Gene: Darby\_62 Start: 44386, Stop: 44700, Start Num: 3

Candidate Starts for Darby\_62:

(Start: 3 @44386 has 12 MA's), (7, 44455), (15, 44518), (18, 44569),

Gene: DevitoJr\_63 Start: 44772, Stop: 45086, Start Num: 3

Candidate Starts for DevitoJr\_63:

(Start: 3 @44772 has 12 MA's), (7, 44841), (15, 44904), (18, 44955),

Gene: Djungelskog\_65 Start: 42742, Stop: 43056, Start Num: 4

Candidate Starts for Djungelskog\_65:

(2, 42700), (Start: 4 @42742 has 23 MA's), (Start: 5 @42775 has 1 MA's), (16, 42895), (23, 43018), (24, 43030),

Gene: DoctorPepper\_66 Start: 42447, Stop: 42758, Start Num: 4

Candidate Starts for DoctorPepper\_66:

(2, 42405), (Start: 4 @42447 has 23 MA's), (Start: 5 @42480 has 1 MA's), (16, 42597), (23, 42720), (24, 42732),

Gene: Egad\_66 Start: 42768, Stop: 43037, Start Num: 5

Candidate Starts for Egad\_66:

(Start: 3 @42735 has 12 MA's), (Start: 4 @42738 has 23 MA's), (Start: 5 @42768 has 1 MA's), (6, 42777), (25, 43011),

Gene: ElephantMan\_64 Start: 45229, Stop: 45540, Start Num: 4

Candidate Starts for ElephantMan\_64:

(Start: 4 @45229 has 23 MA's), (7, 45295), (9, 45319), (15, 45358), (17, 45382),

Gene: Giantsbane\_67 Start: 43961, Stop: 44245, Start Num: 4

Candidate Starts for Giantsbane\_67:

(Start: 4 @43961 has 23 MA's), (7, 44000), (14, 44051), (22, 44204),

Gene: Gordon\_61 Start: 45264, Stop: 45578, Start Num: 3

Candidate Starts for Gordon\_61:

(Start: 3 @45264 has 12 MA's), (7, 45333), (15, 45396), (18, 45447),

Gene: Inked\_69 Start: 45815, Stop: 46129, Start Num: 4

Candidate Starts for Inked\_69:

(Start: 4 @45815 has 23 MA's), (7, 45884), (14, 45935), (22, 46088),

Gene: Issa\_64 Start: 44432, Stop: 44746, Start Num: 3

Candidate Starts for Issa\_64:

(Start: 3 @44432 has 12 MA's), (7, 44501), (17, 44588), (18, 44615), (19, 44633),

Gene: LilHuddy\_68 Start: 45074, Stop: 45361, Start Num: 4

Candidate Starts for LilHuddy\_68:

(Start: 4 @45074 has 23 MA's), (7, 45113), (13, 45164), (14, 45167), (19, 45248), (22, 45320),

Gene: Linda\_66 Start: 42740, Stop: 43051, Start Num: 4

Candidate Starts for Linda\_66:

(2, 42698), (Start: 4 @42740 has 23 MA's), (Start: 5 @42773 has 1 MA's), (16, 42890), (23, 43013), (24, 43025),

Gene: Makai\_67 Start: 45228, Stop: 45506, Start Num: 4

Candidate Starts for Makai\_67:

(Start: 4 @45228 has 23 MA's), (7, 45267), (13, 45312), (22, 45465),

Gene: MediumFry\_64 Start: 44564, Stop: 44842, Start Num: 4

Candidate Starts for MediumFry\_64:

(Start: 4 @44564 has 23 MA's), (7, 44603), (8, 44609), (11, 44636), (22, 44801),

Gene: Michelle\_66 Start: 42742, Stop: 43053, Start Num: 4

Candidate Starts for Michelle\_66:

(2, 42700), (Start: 4 @42742 has 23 MA's), (Start: 5 @42775 has 1 MA's), (16, 42892), (23, 43015), (24, 43027),

Gene: MiniBagel\_61 Start: 45328, Stop: 45642, Start Num: 3

Candidate Starts for MiniBagel\_61:

(Start: 3 @45328 has 12 MA's), (7, 45397), (17, 45484), (18, 45511),

Gene: MrAaronian\_66 Start: 42742, Stop: 43053, Start Num: 4

Candidate Starts for MrAaronian\_66:

(2, 42700), (Start: 4 @42742 has 23 MA's), (Start: 5 @42775 has 1 MA's), (16, 42892), (23, 43015), (24, 43027),

Gene: Nightmare\_65 Start: 45626, Stop: 45940, Start Num: 3

Candidate Starts for Nightmare\_65:

(Start: 3 @45626 has 12 MA's), (7, 45695), (12, 45740), (15, 45758), (18, 45809),

Gene: Niktson\_64 Start: 45229, Stop: 45540, Start Num: 4

Candidate Starts for Niktson\_64:

(Start: 4 @45229 has 23 MA's), (7, 45295), (9, 45319), (15, 45358), (17, 45382),

Gene: Nivinsha\_66 Start: 44576, Stop: 44890, Start Num: 3

Candidate Starts for Nivinsha\_66:

(Start: 3 @44576 has 12 MA's), (7, 44645), (15, 44708), (18, 44759),

Gene: Phaby\_68 Start: 45674, Stop: 45922, Start Num: 7

Candidate Starts for Phaby\_68:

(Start: 4 @45635 has 23 MA's), (7, 45674), (10, 45701), (14, 45728), (22, 45881),

Gene: ProfFrink\_67 Start: 42737, Stop: 43036, Start Num: 4

Candidate Starts for ProfFrink\_67:

(Start: 3 @42734 has 12 MA's), (Start: 4 @42737 has 23 MA's), (Start: 5 @42767 has 1 MA's), (6, 42776), (25, 43010),

Gene: Raunak\_67 Start: 42437, Stop: 42697, Start Num: 6

Candidate Starts for Raunak\_67:

(Start: 3 @42395 has 12 MA's), (Start: 4 @42398 has 23 MA's), (6, 42437), (25, 42671),

Gene: Salk\_66 Start: 42740, Stop: 43051, Start Num: 4

Candidate Starts for Salk\_66:

(2, 42698), (Start: 4 @42740 has 23 MA's), (Start: 5 @42773 has 1 MA's), (16, 42890), (23, 43013), (24, 43025),

Gene: ScienceWizSam\_64 Start: 44738, Stop: 45052, Start Num: 3

Candidate Starts for ScienceWizSam\_64:

(Start: 3 @44738 has 12 MA's), (7, 44807), (15, 44870), (18, 44921),

Gene: Shepard\_69 Start: 44933, Stop: 45220, Start Num: 4

Candidate Starts for Shepard\_69:

(Start: 4 @44933 has 23 MA's), (7, 44972), (13, 45023), (17, 45062), (19, 45107), (21, 45152), (22, 45179),

Gene: Shiba\_65 Start: 42398, Stop: 42709, Start Num: 4

Candidate Starts for Shiba\_65:

(2, 42356), (Start: 4 @42398 has 23 MA's), (Start: 5 @42431 has 1 MA's), (16, 42548), (23, 42671), (24, 42683),

Gene: Sloopyjoe\_66 Start: 42744, Stop: 43055, Start Num: 4

Candidate Starts for Sloopyjoe\_66:

(2, 42702), (Start: 4 @42744 has 23 MA's), (Start: 5 @42777 has 1 MA's), (16, 42894), (23, 43017), (24, 43029),

Gene: Sporto\_65 Start: 43859, Stop: 44170, Start Num: 4

Candidate Starts for Sporto\_65:

(1, 43772), (2, 43817), (Start: 3 @43856 has 12 MA's), (Start: 4 @43859 has 23 MA's), (16, 44009), (21, 44102), (23, 44132),

Gene: StarLord\_66 Start: 42737, Stop: 43048, Start Num: 4

Candidate Starts for StarLord\_66:

(2, 42695), (Start: 4 @42737 has 23 MA's), (Start: 5 @42770 has 1 MA's), (16, 42887), (23, 43010), (24, 43022),

Gene: Stayer\_66 Start: 42740, Stop: 43051, Start Num: 4

Candidate Starts for Stayer\_66:

(2, 42698), (Start: 4 @42740 has 23 MA's), (Start: 5 @42773 has 1 MA's), (16, 42890), (23, 43013), (24, 43025),

Gene: Synopsis\_62 Start: 44739, Stop: 45053, Start Num: 3

Candidate Starts for Synopsis\_62:

(Start: 3 @44739 has 12 MA's), (7, 44808), (15, 44871), (18, 44922),

Gene: Tatanka\_59 Start: 44875, Stop: 45189, Start Num: 3

Candidate Starts for Tatanka\_59:

(Start: 3 @44875 has 12 MA's), (7, 44944), (15, 45007), (18, 45058),

Gene: Teacup\_65 Start: 45308, Stop: 45619, Start Num: 4

Candidate Starts for Teacup\_65:

(Start: 4 @45308 has 23 MA's), (7, 45374), (9, 45398), (15, 45437), (17, 45461),

Gene: Tenno\_64 Start: 45392, Stop: 45706, Start Num: 3

Candidate Starts for Tenno\_64:

(Start: 3 @45392 has 12 MA's), (7, 45461), (17, 45548), (18, 45575),

Gene: Tokki\_73 Start: 45503, Stop: 45790, Start Num: 4

Candidate Starts for Tokki\_73:

(Start: 4 @45503 has 23 MA's), (7, 45542), (13, 45593), (19, 45677), (22, 45749),

Gene: Truckee\_65 Start: 45012, Stop: 45290, Start Num: 4

Candidate Starts for Truckee\_65:

(Start: 4 @45012 has 23 MA's), (7, 45051), (13, 45096), (22, 45249),

Gene: Trustiboi\_63 Start: 44994, Stop: 45308, Start Num: 3

Candidate Starts for Trustiboi\_63:

(Start: 3 @44994 has 12 MA's), (7, 45063), (12, 45108), (15, 45126), (18, 45177),