



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 195745 Report

This analysis was run 12/09/24 on database version 580.

Pham number 195745 has 26 members, 3 are drafts.

Phages represented in each track:

- Track 1 : AreFloNak\_61, Nivinsha\_60
- Track 2 : MiniBagel\_58, Issa\_59
- Track 3 : Teacup\_59
- Track 4 : DevitoJr\_58, Breylor17\_58, CastorTray\_62, Tatanka\_55, Nightmare\_60, Synepsis\_57, Darby\_57
- Track 5 : Trustiboi\_58, ScienceWizSam\_59
- Track 6 : CapnMurica\_56, Tenno\_59
- Track 7 : Niktson\_58, ElephantMan\_58, Brunswick\_59
- Track 8 : Gordon\_56
- Track 9 : Ingrid\_65, Loretta\_62
- Track 10 : MediumFry\_59
- Track 11 : Caterpillar\_58
- Track 12 : Makai\_62
- Track 13 : Truckee\_60

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

The start number called the most often in the published annotations is 2, it was called in 21 of the 23 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- AreFloNak\_61, Breylor17\_58, Brunswick\_59, CapnMurica\_56, CastorTray\_62, Caterpillar\_58, Darby\_57, DevitoJr\_58, ElephantMan\_58, Gordon\_56, Ingrid\_65, Issa\_59, Loretta\_62, Makai\_62, MediumFry\_59, MiniBagel\_58, Nightmare\_60, Niktson\_58, Nivinsha\_60, Synepsis\_57, Tatanka\_55, Teacup\_59, Tenno\_59, Truckee\_60,

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

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

- ScienceWizSam\_59, Trustiboi\_58,

### **Summary by start number:**

Start 1:

- Found in 2 of 26 ( 7.7% ) 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: ScienceWizSam\_59 (AU1), Trustiboi\_58 (AU1),

Start 2:

- Found in 24 of 26 ( 92.3% ) of genes in pham
- Manual Annotations of this start: 21 of 23
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AreFloNak\_61 (AU1), Breylor17\_58 (AU1), Brunswick\_59 (AU1), CapnMurica\_56 (AU1), CastorTray\_62 (AU1), Caterpillar\_58 (AU4), Darby\_57 (AU1), DevitoJr\_58 (AU1), ElephantMan\_58 (AU1), Gordon\_56 (AU1), Ingrid\_65 (AU3), Issa\_59 (AU1), Loretta\_62 (AU3), Makai\_62 (AU5), MediumFry\_59 (AU4), MiniBagel\_58 (AU1), Nightmare\_60 (AU1), Niktson\_58 (AU1), Nivinsha\_60 (AU1), Synopsis\_57 (AU1), Tatanka\_55 (AU1), Teacup\_59 (AU1), Tenno\_59 (AU1), Truckee\_60 (AU5),

**Summary by clusters:**

There are 4 clusters represented in this pham: AU1, AU3, AU5, AU4,

Info for manual annotations of cluster AU1:

- Start number 1 was manually annotated 2 times for cluster AU1.
- Start number 2 was manually annotated 15 times for cluster AU1.

Info for manual annotations of cluster AU3:

- Start number 2 was manually annotated 2 times for cluster AU3.

Info for manual annotations of cluster AU4:

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

Info for manual annotations of cluster AU5:

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

**Gene Information:**

Gene: AreFloNak\_61 Start: 42859, Stop: 43182, Start Num: 2

Candidate Starts for AreFloNak\_61:

(Start: 2 @42859 has 21 MA's), (11, 42958), (12, 42997), (13, 43003), (16, 43066), (18, 43126), (19, 43129), (20, 43156),

Gene: Breylor17\_58 Start: 43432, Stop: 43758, Start Num: 2

Candidate Starts for Breylor17\_58:

(Start: 2 @43432 has 21 MA's), (11, 43531), (13, 43576), (16, 43639), (18, 43699), (19, 43702),

Gene: Brunswick\_59 Start: 42729, Stop: 43055, Start Num: 2

Candidate Starts for Brunswick\_59:

(Start: 2 @42729 has 21 MA's), (9, 42819), (11, 42831), (13, 42876), (15, 42915), (16, 42939), (18, 42999), (19, 43002), (20, 43029),

Gene: CapnMurica\_56 Start: 43585, Stop: 43947, Start Num: 2

Candidate Starts for CapnMurica\_56:

(Start: 2 @43585 has 21 MA's), (5, 43624), (11, 43723), (13, 43768), (15, 43807), (16, 43831), (18, 43891), (19, 43894), (20, 43921),

Gene: CastorTray\_62 Start: 43620, Stop: 43946, Start Num: 2

Candidate Starts for CastorTray\_62:

(Start: 2 @43620 has 21 MA's), (11, 43719), (13, 43764), (16, 43827), (18, 43887), (19, 43890),

Gene: Caterpillar\_58 Start: 42467, Stop: 42865, Start Num: 2

Candidate Starts for Caterpillar\_58:

(Start: 2 @42467 has 21 MA's), (4, 42518), (7, 42575), (13, 42695), (14, 42722), (16, 42758), (18, 42818), (20, 42848),

Gene: Darby\_57 Start: 42676, Stop: 42993, Start Num: 2

Candidate Starts for Darby\_57:

(Start: 2 @42676 has 21 MA's), (11, 42766), (13, 42811), (16, 42874), (18, 42934), (19, 42937),

Gene: DevitoJr\_58 Start: 43062, Stop: 43379, Start Num: 2

Candidate Starts for DevitoJr\_58:

(Start: 2 @43062 has 21 MA's), (11, 43152), (13, 43197), (16, 43260), (18, 43320), (19, 43323),

Gene: ElephantMan\_58 Start: 43359, Stop: 43685, Start Num: 2

Candidate Starts for ElephantMan\_58:

(Start: 2 @43359 has 21 MA's), (9, 43449), (11, 43461), (13, 43506), (15, 43545), (16, 43569), (18, 43629), (19, 43632), (20, 43659),

Gene: Gordon\_56 Start: 43483, Stop: 43866, Start Num: 2

Candidate Starts for Gordon\_56:

(Start: 2 @43483 has 21 MA's), (7, 43561), (11, 43642), (13, 43687), (16, 43750), (18, 43810), (19, 43813), (20, 43840),

Gene: Ingrid\_65 Start: 43339, Stop: 43734, Start Num: 2

Candidate Starts for Ingrid\_65:

(Start: 2 @43339 has 21 MA's), (13, 43558), (16, 43621), (18, 43681), (19, 43684), (20, 43711),

Gene: Issa\_59 Start: 42679, Stop: 43041, Start Num: 2

Candidate Starts for Issa\_59:

(Start: 2 @42679 has 21 MA's), (5, 42718), (10, 42814), (11, 42817), (13, 42862), (15, 42901), (16, 42925), (18, 42985), (19, 42988), (20, 43015),

Gene: Loretta\_62 Start: 43339, Stop: 43734, Start Num: 2

Candidate Starts for Loretta\_62:

(Start: 2 @43339 has 21 MA's), (13, 43558), (16, 43621), (18, 43681), (19, 43684), (20, 43711),

Gene: Makai\_62 Start: 43423, Stop: 43809, Start Num: 2

Candidate Starts for Makai\_62:

(Start: 2 @43423 has 21 MA's), (6, 43489), (8, 43546), (12, 43618), (13, 43624), (16, 43693), (17, 43696), (18, 43753), (19, 43756), (20, 43783),

Gene: MediumFry\_59 Start: 42756, Stop: 43154, Start Num: 2

Candidate Starts for MediumFry\_59:

(Start: 2 @42756 has 21 MA's), (4, 42807), (7, 42864), (12, 42978), (13, 42984), (16, 43047), (18, 43107), (20, 43137),

Gene: MiniBagel\_58 Start: 43567, Stop: 43929, Start Num: 2

Candidate Starts for MiniBagel\_58:

(Start: 2 @43567 has 21 MA's), (5, 43606), (10, 43702), (11, 43705), (13, 43750), (15, 43789), (16, 43813), (18, 43873), (19, 43876), (20, 43903),

Gene: Nightmare\_60 Start: 43904, Stop: 44227, Start Num: 2

Candidate Starts for Nightmare\_60:

(Start: 2 @43904 has 21 MA's), (11, 44003), (13, 44048), (16, 44111), (18, 44171), (19, 44174),

Gene: Niktson\_58 Start: 43359, Stop: 43685, Start Num: 2

Candidate Starts for Niktson\_58:

(Start: 2 @43359 has 21 MA's), (9, 43449), (11, 43461), (13, 43506), (15, 43545), (16, 43569), (18, 43629), (19, 43632), (20, 43659),

Gene: Nivinsha\_60 Start: 42859, Stop: 43182, Start Num: 2

Candidate Starts for Nivinsha\_60:

(Start: 2 @42859 has 21 MA's), (11, 42958), (12, 42997), (13, 43003), (16, 43066), (18, 43126), (19, 43129), (20, 43156),

Gene: ScienceWizSam\_59 Start: 42958, Stop: 43344, Start Num: 1

Candidate Starts for ScienceWizSam\_59:

(Start: 1 @42958 has 2 MA's), (3, 43036), (11, 43117), (13, 43162), (16, 43225), (18, 43285), (19, 43288),

Gene: Synopsis\_57 Start: 43026, Stop: 43349, Start Num: 2

Candidate Starts for Synopsis\_57:

(Start: 2 @43026 has 21 MA's), (11, 43125), (13, 43170), (16, 43233), (18, 43293), (19, 43296),

Gene: Tatanka\_55 Start: 43155, Stop: 43481, Start Num: 2

Candidate Starts for Tatanka\_55:

(Start: 2 @43155 has 21 MA's), (11, 43254), (13, 43299), (16, 43362), (18, 43422), (19, 43425),

Gene: Teacup\_59 Start: 43381, Stop: 43764, Start Num: 2

Candidate Starts for Teacup\_59:

(Start: 2 @43381 has 21 MA's), (7, 43459), (9, 43528), (11, 43540), (13, 43585), (15, 43624), (16, 43648), (18, 43708), (19, 43711), (20, 43738),

Gene: Tenno\_59 Start: 43640, Stop: 44002, Start Num: 2

Candidate Starts for Tenno\_59:

(Start: 2 @43640 has 21 MA's), (5, 43679), (11, 43778), (13, 43823), (15, 43862), (16, 43886), (18, 43946), (19, 43949), (20, 43976),

Gene: Truckee\_60 Start: 43213, Stop: 43593, Start Num: 2

Candidate Starts for Truckee\_60:

(Start: 2 @43213 has 21 MA's), (5, 43267), (6, 43285), (8, 43330), (13, 43408), (16, 43477), (18, 43537), (19, 43540), (20, 43567),

Gene: Trustiboi\_58 Start: 43218, Stop: 43604, Start Num: 1

Candidate Starts for Trustiboi\_58:

(Start: 1 @43218 has 2 MA's), (3, 43296), (11, 43377), (13, 43422), (16, 43485), (18, 43545), (19, 43548),