

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 87150 Report

This analysis was run 03/30/24 on database version 556.

Pham number 87150 has 13 members, 2 are drafts.

Phages represented in each track:

• Track 1 : Miskis 107

Track 2: ClubL_109, Smoothie_109, Bachita_110, Norvs_110

• Track 3: Engineer_109, Cucurbita_109, Aphelion_109, Abscondus_107,

Lozinak_108

Track 4 : Culver_108, Toniann_108

Track 5 : PhinkBoden_107

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

The start number called the most often in the published annotations is 7, it was called in 5 of the 11 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

• Abscondus_107, Aphelion_109, Cucurbita_109, Engineer_109, Lozinak_108, Miskis_107, PhinkBoden_107,

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

Bachita_110, ClubL_109, Culver_108, Norvs_110, Smoothie_109, Toniann_108,

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

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Summary by start number:

Start 1:

- Found in 2 of 13 (15.4%) of genes in pham
- Manual Annotations of this start: 2 of 11
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Culver_108 (CQ1), Toniann_108 (CQ1),

Start 6:

- Found in 13 of 13 (100.0%) of genes in pham
- Manual Annotations of this start: 4 of 11
- Called 30.8% of time when present

• Phage (with cluster) where this start called: Bachita_110 (CQ1), ClubL_109 (CQ1), Norvs_110 (CQ), Smoothie_109 (CQ1),

Start 7:

- Found in 13 of 13 (100.0%) of genes in pham
- Manual Annotations of this start: 5 of 11
- Called 53.8% of time when present
- Phage (with cluster) where this start called: Abscondus_107 (CQ), Aphelion_109 (CQ1), Cucurbita_109 (CQ1), Engineer_109 (CQ1), Lozinak_108 (CQ1), Miskis_107 (CQ), PhinkBoden_107 (CQ1),

Summary by clusters:

There are 2 clusters represented in this pham: CQ1, CQ,

Info for manual annotations of cluster CQ:

•Start number 6 was manually annotated 1 time for cluster CQ.

Info for manual annotations of cluster CQ1:

- •Start number 1 was manually annotated 2 times for cluster CQ1.
- •Start number 6 was manually annotated 3 times for cluster CQ1.
- Start number 7 was manually annotated 5 times for cluster CQ1.

Gene Information:

Gene: Abscondus_107 Start: 63568, Stop: 63876, Start Num: 7

Candidate Starts for Abscondus 107:

(Start: 6 @63565 has 4 MA's), (Start: 7 @63568 has 5 MA's), (8, 63631), (9, 63646), (10, 63673), (12, 63715), (14, 63733), (15, 63736), (16, 63742),

Gene: Aphelion 109 Start: 65121, Stop: 65429, Start Num: 7

Candidate Starts for Aphelion 109:

(Start: 6 @65118 has 4 MA's), (Start: 7 @65121 has 5 MA's), (8, 65184), (9, 65199), (10, 65226), (12, 65268), (14, 65286), (15, 65289), (16, 65295),

Gene: Bachita_110 Start: 64776, Stop: 65087, Start Num: 6

Candidate Starts for Bachita_110:

(Start: 6 @64776 has 4 MA's), (Start: 7 @64779 has 5 MA's), (8, 64842), (9, 64857), (10, 64884), (12, 64926), (14, 64944), (15, 64947), (16, 64953),

Gene: ClubL 109 Start: 63706, Stop: 64017, Start Num: 6

Candidate Starts for ClubL_109:

(Start: 6 @63706 has 4 MA's), (Start: 7 @63709 has 5 MA's), (8, 63772), (9, 63787), (10, 63814), (12, 63856), (14, 63874), (15, 63877), (16, 63883),

Gene: Cucurbita 109 Start: 65286, Stop: 65594, Start Num: 7

Candidate Starts for Cucurbita 109:

(Start: 6 @65283 has 4 MA's), (Start: 7 @65286 has 5 MA's), (8, 65349), (9, 65364), (10, 65391), (12, 65433), (14, 65451), (15, 65454), (16, 65460),

Gene: Culver_108 Start: 62929, Stop: 63348, Start Num: 1

Candidate Starts for Culver 108:

(Start: 1 @62929 has 2 MA's), (3, 62998), (Start: 6 @63037 has 4 MA's), (Start: 7 @63040 has 5 MA's), (8, 63103), (9, 63118), (10, 63145), (12, 63187), (14, 63205), (15, 63208), (16, 63214),

Gene: Engineer_109 Start: 64752, Stop: 65060, Start Num: 7

Candidate Starts for Engineer 109:

(Start: 6 @64749 has 4 MA's), (Start: 7 @64752 has 5 MA's), (8, 64815), (9, 64830), (10, 64857), (12, 64899), (14, 64917), (15, 64920), (16, 64926),

Gene: Lozinak_108 Start: 64590, Stop: 64898, Start Num: 7

Candidate Starts for Lozinak 108:

(Start: 6 @ 64587 has 4 MA's), (Start: 7 @ 64590 has 5 MA's), (8, 64653), (9, 64668), (10, 64695), (12, 64737), (14, 64755), (15, 64758), (16, 64764),

Gene: Miskis_107 Start: 63553, Stop: 63861, Start Num: 7

Candidate Starts for Miskis_107:

(4, 63538), (5, 63544), (Start: 6 @63550 has 4 MA's), (Start: 7 @63553 has 5 MA's), (8, 63616), (9, 63631), (12, 63700), (13, 63712), (14, 63718), (16, 63727),

Gene: Norvs_110 Start: 64614, Stop: 64925, Start Num: 6

Candidate Starts for Norvs 110:

(Start: 6 @64614 has 4 MA's), (Start: 7 @64617 has 5 MA's), (8, 64680), (9, 64695), (10, 64722), (12, 64764), (14, 64782), (15, 64785), (16, 64791),

Gene: PhinkBoden_107 Start: 64380, Stop: 64688, Start Num: 7

Candidate Starts for PhinkBoden_107:

(2, 64308), (Start: 6 @64377 has 4 MA's), (Start: 7 @64380 has 5 MA's), (9, 64458), (10, 64485), (11, 64503), (12, 64527), (13, 64539), (14, 64545), (15, 64548), (16, 64554),

Gene: Smoothie_109 Start: 64587, Stop: 64898, Start Num: 6

Candidate Starts for Smoothie_109:

(Start: 6 @64587 has 4 MA's), (Start: 7 @64590 has 5 MA's), (8, 64653), (9, 64668), (10, 64695), (12, 64737), (14, 64755), (15, 64758), (16, 64764),

Gene: Toniann_108 Start: 63881, Stop: 64300, Start Num: 1

Candidate Starts for Toniann_108:

(Start: 1 @63881 has 2 MA's), (3, 63950), (Start: 6 @63989 has 4 MA's), (Start: 7 @63992 has 5 MA's), (8, 64055), (9, 64070), (10, 64097), (12, 64139), (14, 64157), (15, 64160), (16, 64166),