

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 4396 Report

This analysis was run 04/05/24 on database version 557.

Pham number 4396 has 19 members, 3 are drafts.

Phages represented in each track:

Track 1: Norvs 9

• Track 2: Bachita_10, Engineer_9, ClubL_9, Abscondus_8, Cucurbita_8, PhinkBoden_10, Miskis_10, Aphelion_9, Lozinak_9, Smoothie_9, Culver_8

Track 3: WilliamBoone 8

• Track 4: Toniann 9

• Track 5 : BrutonGaster 6

Track 6 : OneUp_8

Track 7 : Cardigan_13, Yvonnetastic_13, JonJames_12

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

The start number called the most often in the published annotations is 3, it was called in 12 of the 16 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

• Abscondus_8, Aphelion_9, Bachita_10, BrutonGaster_6, ClubL_9, Cucurbita_8, Culver_8, Engineer_9, Lozinak_9, Miskis_10, OneUp_8, PhinkBoden_10, Smoothie_9, WilliamBoone_8,

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

• Norvs_9, Toniann_9,

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

Cardigan_13, JonJames_12, Yvonnetastic_13,

Summary by start number:

Start 1:

- Found in 13 of 19 (68.4%) of genes in pham
- Manual Annotations of this start: 1 of 16
- Called 7.7% of time when present
- Phage (with cluster) where this start called: Toniann_9 (CQ1),

Start 3:

- Found in 16 of 19 (84.2%) of genes in pham
- Manual Annotations of this start: 12 of 16
- Called 87.5% of time when present
- Phage (with cluster) where this start called: Abscondus_8 (CQ), Aphelion_9 (CQ1), Bachita_10 (CQ1), BrutonGaster_6 (CQ2), ClubL_9 (CQ1), Cucurbita_8 (CQ1), Culver_8 (CQ1), Engineer_9 (CQ1), Lozinak_9 (CQ1), Miskis_10 (CQ), OneUp_8 (CQ2), PhinkBoden_10 (CQ1), Smoothie_9 (CQ1), WilliamBoone_8 (CQ1),

Start 4:

- Found in 3 of 19 (15.8%) of genes in pham
- Manual Annotations of this start: 2 of 16
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Cardigan_13 (DD), JonJames_12 (DD), Yvonnetastic 13 (DD),

Start 8:

- Found in 15 of 19 (78.9%) of genes in pham
- Manual Annotations of this start: 1 of 16
- Called 6.7% of time when present
- Phage (with cluster) where this start called: Norvs_9 (CQ),

Summary by clusters:

There are 4 clusters represented in this pham: CQ2, CQ1, CQ, DD,

Info for manual annotations of cluster CQ:

•Start number 8 was manually annotated 1 time for cluster CQ.

Info for manual annotations of cluster CQ1:

- •Start number 1 was manually annotated 1 time for cluster CQ1.
- •Start number 3 was manually annotated 10 times for cluster CQ1.

Info for manual annotations of cluster CQ2:

•Start number 3 was manually annotated 2 times for cluster CQ2.

Info for manual annotations of cluster DD:

•Start number 4 was manually annotated 2 times for cluster DD.

Gene Information:

Gene: Abscondus 8 Start: 1908, Stop: 2192, Start Num: 3

Candidate Starts for Abscondus_8:

(Start: 1 @ 1878 has 1 MA's), (2, 1884), (Start: 3 @ 1908 has 12 MA's), (Start: 8 @ 1962 has 1 MA's), (9, 1995), (11, 2025), (13, 2034), (15, 2064), (19, 2103),

Gene: Aphelion_9 Start: 2084, Stop: 2368, Start Num: 3

Candidate Starts for Aphelion 9:

(Start: 1 @2054 has 1 MA's), (2, 2060), (Start: 3 @2084 has 12 MA's), (Start: 8 @2138 has 1 MA's), (9, 2171), (11, 2201), (13, 2210), (15, 2240), (19, 2279),

Gene: Bachita_10 Start: 2584, Stop: 2868, Start Num: 3

Candidate Starts for Bachita 10:

(Start: 1 @2554 has 1 MA's), (2, 2560), (Start: 3 @2584 has 12 MA's), (Start: 8 @2638 has 1 MA's), (9, 2671), (11, 2701), (13, 2710), (15, 2740), (19, 2779),

Gene: BrutonGaster_6 Start: 1374, Stop: 1661, Start Num: 3

Candidate Starts for BrutonGaster 6:

(Start: 3 @1374 has 12 MA's), (Start: 8 @1428 has 1 MA's), (12, 1497), (13, 1500), (14, 1506), (17, 1563), (19, 1569),

Gene: Cardigan 13 Start: 3546, Stop: 3821, Start Num: 4

Candidate Starts for Cardigan 13:

(Start: 4 @ 3546 has 2 MA's), (10, 3657), (14, 3678), (15, 3696), (16, 3720), (20, 3759), (22, 3816),

Gene: ClubL_9 Start: 2084, Stop: 2368, Start Num: 3

Candidate Starts for ClubL_9:

(Start: 1 @2054 has 1 MA's), (2, 2060), (Start: 3 @2084 has 12 MA's), (Start: 8 @2138 has 1 MA's), (9, 2171), (11, 2201), (13, 2210), (15, 2240), (19, 2279),

Gene: Cucurbita 8 Start: 2084, Stop: 2368, Start Num: 3

Candidate Starts for Cucurbita_8:

(Start: 1 @2054 has 1 MA's), (2, 2060), (Start: 3 @2084 has 12 MA's), (Start: 8 @2138 has 1 MA's), (9, 2171), (11, 2201), (13, 2210), (15, 2240), (19, 2279),

Gene: Culver_8 Start: 1908, Stop: 2192, Start Num: 3

Candidate Starts for Culver 8:

(Start: 1 @1878 has 1 MA's), (2, 1884), (Start: 3 @1908 has 12 MA's), (Start: 8 @1962 has 1 MA's), (9, 1995), (11, 2025), (13, 2034), (15, 2064), (19, 2103),

Gene: Engineer_9 Start: 2084, Stop: 2368, Start Num: 3

Candidate Starts for Engineer_9:

(Start: 1 @2054 has 1 MA's), (2, 2060), (Start: 3 @2084 has 12 MA's), (Start: 8 @2138 has 1 MA's), (9, 2171), (11, 2201), (13, 2210), (15, 2240), (19, 2279),

Gene: JonJames 12 Start: 3697, Stop: 3972, Start Num: 4

Candidate Starts for JonJames 12:

(Start: 4 @ 3697 has 2 MA's), (10, 3808), (14, 3829), (15, 3847), (16, 3871), (20, 3910), (22, 3967),

Gene: Lozinak_9 Start: 2084, Stop: 2368, Start Num: 3

Candidate Starts for Lozinak_9:

(Start: 1 @2054 has 1 MA's), (2, 2060), (Start: 3 @2084 has 12 MA's), (Start: 8 @2138 has 1 MA's), (9, 2171), (11, 2201), (13, 2210), (15, 2240), (19, 2279),

Gene: Miskis_10 Start: 2084, Stop: 2368, Start Num: 3

Candidate Starts for Miskis 10:

(Start: 1 @2054 has 1 MA's), (2, 2060), (Start: 3 @2084 has 12 MA's), (Start: 8 @2138 has 1 MA's), (9, 2171), (11, 2201), (13, 2210), (15, 2240), (19, 2279),

Gene: Norvs_9 Start: 2138, Stop: 2368, Start Num: 8

Candidate Starts for Norvs_9:

(Start: 1 @2054 has 1 MA's), (2, 2060), (Start: 3 @2084 has 12 MA's), (Start: 8 @2138 has 1 MA's), (9, 2171), (11, 2201), (13, 2210), (15, 2240), (19, 2279),

Gene: OneUp_8 Start: 1818, Stop: 2105, Start Num: 3

Candidate Starts for OneUp_8:

(Start: 3 @1818 has 12 MA's), (6, 1842), (7, 1860), (Start: 8 @1872 has 1 MA's), (9, 1905), (12, 1941), (13, 1944), (18, 2010), (19, 2013), (23, 2097),

Gene: PhinkBoden_10 Start: 2584, Stop: 2868, Start Num: 3

Candidate Starts for PhinkBoden 10:

(Start: 1 @2554 has 1 MA's), (2, 2560), (Start: 3 @2584 has 12 MA's), (Start: 8 @2638 has 1 MA's), (9, 2671), (11, 2701), (13, 2710), (15, 2740), (19, 2779),

Gene: Smoothie_9 Start: 2084, Stop: 2368, Start Num: 3

Candidate Starts for Smoothie 9:

(Start: 1 @2054 has 1 MA's), (2, 2060), (Start: 3 @2084 has 12 MA's), (Start: 8 @2138 has 1 MA's), (9, 2171), (11, 2201), (13, 2210), (15, 2240), (19, 2279),

Gene: Toniann_9 Start: 2054, Stop: 2368, Start Num: 1

Candidate Starts for Toniann_9:

(Start: 1 @2054 has 1 MA's), (2, 2060), (Start: 3 @2084 has 12 MA's), (Start: 8 @2138 has 1 MA's), (9, 2171), (11, 2201), (13, 2210), (15, 2240), (19, 2279),

Gene: WilliamBoone_8 Start: 1935, Stop: 2219, Start Num: 3

Candidate Starts for WilliamBoone_8:

(2, 1911), (Start: 3 @1935 has 12 MA's), (5, 1950), (9, 2022), (11, 2052), (12, 2058), (13, 2061), (15, 2091), (19, 2130), (21, 2160),

Gene: Yvonnetastic_13 Start: 3330, Stop: 3605, Start Num: 4

Candidate Starts for Yvonnetastic_13:

(Start: 4 @ 3330 has 2 MA's), (10, 3441), (14, 3462), (15, 3480), (16, 3504), (20, 3543), (22, 3600),