

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 194370 Report

This analysis was run 11/02/24 on database version 579.

WARNING: Pham size does not match number of genes in report. Either unphamerated genes have been added (by you) or starterator has removed genes due to invalid start codon.

Pham number 194370 has 18 members, 2 are drafts.

Phages represented in each track:

- Track 1 : Wolfstar 14
- Track 2 : DejaVu\_15, Pavlo\_13
- Track 3: Hubbs 14, Lupine 13, Roman 14
- Track 4 : PhillyPhilly\_15
- Track 5: Musetta\_14, StevieWelch\_14, Fork\_11
  Track 6: RunningBrook\_14, Erenyeager\_11, DustyDino\_14, Lyell\_14
- Track 7: Necrophoxinus 14
- Track 8: Yuma 14, Welcome 14
- Track 9 : Magritte 143

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

The start number called the most often in the published annotations is 6, it was called in 8 of the 16 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

• DustyDino\_14, Erenyeager\_11, Fork\_11, Lyell\_14, Musetta\_14, Necrophoxinus\_14, RunningBrook\_14, StevieWelch\_14, Welcome\_14, Yuma\_14,

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

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

 DejaVu\_15, Hubbs\_14, Lupine\_13, Magritte\_143, Pavlo\_13, PhillyPhilly\_15, Roman\_14, Wolfstar\_14,

# Summary by start number:

### Start 6:

Found in 10 of 18 (55.6%) of genes in pham

- Manual Annotations of this start: 8 of 16
- Called 100.0% of time when present
- Phage (with cluster) where this start called: DustyDino\_14 (ED2), Erenyeager\_11 (ED2), Fork\_11 (ED2), Lyell\_14 (ED2), Musetta\_14 (ED2), Necrophoxinus\_14 (ED2), RunningBrook\_14 (ED2), StevieWelch\_14 (ED2), Welcome\_14 (ED2), Yuma\_14 (ED2),

## Start 7:

- Found in 6 of 18 (33.3%) of genes in pham
- Manual Annotations of this start: 1 of 16
- Called 16.7% of time when present
- Phage (with cluster) where this start called: PhillyPhilly\_15 (ED1),

### Start 8:

- Found in 7 of 18 (38.9%) of genes in pham
- Manual Annotations of this start: 6 of 16
- Called 85.7% of time when present
- Phage (with cluster) where this start called: DejaVu\_15 (ED1), Hubbs\_14 (ED1), Lupine\_13 (ED1), Pavlo\_13 (ED1), Roman\_14 (ED1), Wolfstar\_14 (ED),

### Start 9:

- Found in 1 of 18 (5.6%) of genes in pham
- Manual Annotations of this start: 1 of 16
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Magritte\_143 (singleton),

## **Summary by clusters:**

There are 4 clusters represented in this pham: ED2, ED, singleton, ED1,

Info for manual annotations of cluster ED:

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

Info for manual annotations of cluster ED1:

- •Start number 7 was manually annotated 1 time for cluster ED1.
- •Start number 8 was manually annotated 5 times for cluster ED1.

Info for manual annotations of cluster ED2:

•Start number 6 was manually annotated 8 times for cluster ED2.

## Gene Information:

Gene: DejaVu\_15 Start: 4738, Stop: 4866, Start Num: 8

Candidate Starts for DejaVu\_15:

(Start: 7 @ 4735 has 1 MA's), (Start: 8 @ 4738 has 6 MA's), (10, 4768), (13, 4822), (16, 4855),

Gene: DustyDino 14 Start: 5076, Stop: 5228, Start Num: 6

Candidate Starts for DustvDino 14:

(Start: 6 @ 5076 has 8 MA's), (11, 5130), (12, 5154), (13, 5187), (16, 5220),

Gene: Erenyeager\_11 Start: 4447, Stop: 4599, Start Num: 6

Candidate Starts for Erenyeager\_11:

(Start: 6 @ 4447 has 8 MA's), (11, 4501), (12, 4525), (13, 4558), (16, 4591),

Gene: Fork\_11 Start: 4329, Stop: 4481, Start Num: 6

Candidate Starts for Fork\_11:

(1, 4203), (2, 4212), (3, 4242), (Start: 6 @4329 has 8 MA's), (11, 4383), (12, 4407), (13, 4440), (16, 4473),

Gene: Hubbs\_14 Start: 4922, Stop: 5053, Start Num: 8

Candidate Starts for Hubbs 14:

(Start: 7 @ 4919 has 1 MA's), (Start: 8 @ 4922 has 6 MA's), (10, 4952), (15, 5039), (16, 5045),

Gene: Lupine\_13 Start: 4717, Stop: 4848, Start Num: 8

Candidate Starts for Lupine 13:

(Start: 7 @4714 has 1 MA's), (Start: 8 @4717 has 6 MA's), (10, 4747), (15, 4834), (16, 4840),

Gene: Lyell 14 Start: 4791, Stop: 4943, Start Num: 6

Candidate Starts for Lyell\_14:

(Start: 6 @ 4791 has 8 MA's), (11, 4845), (12, 4869), (13, 4902), (16, 4935),

Gene: Magritte\_143 Start: 88216, Stop: 88329, Start Num: 9

Candidate Starts for Magritte\_143:

(4, 88132), (5, 88177), (Start: 9 @88216 has 1 MA's), (14, 88291),

Gene: Musetta\_14 Start: 5039, Stop: 5191, Start Num: 6

Candidate Starts for Musetta\_14:

(1, 4913), (2, 4922), (3, 4952), (Start: 6 @5039 has 8 MA's), (11, 5093), (12, 5117), (13, 5150), (16, 5183).

Gene: Necrophoxinus\_14 Start: 5155, Stop: 5307, Start Num: 6

Candidate Starts for Necrophoxinus\_14:

(Start: 6 @5155 has 8 MA's), (11, 5209), (12, 5233), (13, 5266), (16, 5299),

Gene: Pavlo 13 Start: 4992, Stop: 5120, Start Num: 8

Candidate Starts for Pavlo 13:

(Start: 7 @ 4989 has 1 MA's), (Start: 8 @ 4992 has 6 MA's), (10, 5022), (13, 5076), (16, 5109),

Gene: PhillyPhilly\_15 Start: 5100, Stop: 5231, Start Num: 7

Candidate Starts for PhillyPhilly\_15:

(Start: 7 @5100 has 1 MA's), (Start: 8 @5103 has 6 MA's), (10, 5133), (13, 5187), (16, 5220),

Gene: Roman\_14 Start: 4874, Stop: 5005, Start Num: 8

Candidate Starts for Roman 14:

(Start: 7 @ 4871 has 1 MA's), (Start: 8 @ 4874 has 6 MA's), (10, 4904), (15, 4991), (16, 4997),

Gene: RunningBrook\_14 Start: 5076, Stop: 5228, Start Num: 6

Candidate Starts for RunningBrook\_14:

(Start: 6 @ 5076 has 8 MA's), (11, 5130), (12, 5154), (13, 5187), (16, 5220),

Gene: StevieWelch 14 Start: 4956, Stop: 5108, Start Num: 6

Candidate Starts for StevieWelch\_14:

(1, 4830), (2, 4839), (3, 4869), (Start: 6 @4956 has 8 MA's), (11, 5010), (12, 5034), (13, 5067), (16, 5100),

Gene: Welcome\_14 Start: 5035, Stop: 5187, Start Num: 6

Candidate Starts for Welcome\_14:

(3, 4948), (Start: 6 @5035 has 8 MA's), (11, 5089), (12, 5113), (13, 5146), (16, 5179),

Gene: Wolfstar\_14 Start: 5290, Stop: 5421, Start Num: 8

Candidate Starts for Wolfstar\_14:

(Start: 8 @5290 has 6 MA's), (10, 5320), (15, 5407),

Gene: Yuma\_14 Start: 4938, Stop: 5090, Start Num: 6

Candidate Starts for Yuma\_14:

(3, 4851), (Start: 6 @4938 has 8 MA's), (11, 4992), (12, 5016), (13, 5049), (16, 5082),