

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 61105 Report

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

Pham number 61105 has 27 members, 1 are drafts.

Phages represented in each track:

- Track 1 : TinaLin 64
- Track 2 : Huffy\_65, DinoDaryn\_65, TZGordon\_66
- Track 3: Banquo\_64, Splinter\_65, Vendetta\_65, Goib\_65
- Track 4 : Gsput1 56
- Track 5: Dardanus 59
- Track 6 : Schmidt\_59
- Track 7 : Catfish 65
- Track 8 : Keelan 119
- Track 9: Fryberger\_118, Ziko\_120, Ronaldo\_119, Guey18\_122, Volt\_122
- Track 10: Syleon 116, Kudefre 115, Sephiroth 111
- Track 11 : Octobien14\_111
- Track 12 : Neville 112
- Track 13 : Trax\_114Track 14 : Rabbitrun\_114
- Track 15: Nebkiss 129, Gaia 128

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

The start number called the most often in the published annotations is 9, it was called in 10 of the 26 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

 Catfish\_65, Fryberger\_118, Gaia\_128, Guey18\_122, Keelan\_119, Nebkiss\_129, Ronaldo\_119, TinaLin\_64, Volt\_122, Ziko\_120,

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

Banquo\_64, Dardanus\_59, DinoDaryn\_65, Goib\_65, Gsput1\_56, Huffy\_65, Schmidt\_59, Splinter\_65, TZGordon\_66, Vendetta\_65,

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

 Kudefre\_115, Neville\_112, Octobien14\_111, Rabbitrun\_114, Sephiroth\_111, Syleon\_116, Trax\_114,

# Summary by start number:

#### Start 6:

- Found in 3 of 27 (11.1%) of genes in pham
- Manual Annotations of this start: 1 of 26
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Dardanus\_59 (CU3),

### Start 8:

- Found in 12 of 27 (44.4%) of genes in pham
- Manual Annotations of this start: 8 of 26
- Called 75.0% of time when present
- Phage (with cluster) where this start called: Banquo\_64 (CU1), DinoDaryn\_65 (CU1), Goib\_65 (CU1), Gsput1\_56 (CU2), Huffy\_65 (CU1), Schmidt\_59 (CU4), Splinter\_65 (CU1), TZGordon\_66 (CU1), Vendetta\_65 (CU1),

#### Start 9:

- Found in 20 of 27 (74.1%) of genes in pham
- Manual Annotations of this start: 10 of 26
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Catfish\_65 (CU5), Fryberger\_118 (DP), Gaia\_128 (X), Guey18\_122 (DP), Keelan\_119 (DP), Nebkiss\_129 (X), Ronaldo\_119 (DP), TinaLin\_64 (CU1), Volt\_122 (DP), Ziko\_120 (DP),

### Start 10:

- Found in 4 of 27 (14.8%) of genes in pham
- Manual Annotations of this start: 4 of 26
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Kudefre\_115 (DU1), Octobien14\_111 (DU1), Sephiroth\_111 (DU1), Syleon\_116 (DU1),

#### Start 11:

- Found in 3 of 27 (11.1%) of genes in pham
- Manual Annotations of this start: 3 of 26
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Neville\_112 (DU2), Rabbitrun\_114 (DU2), Trax\_114 (DU2),

# Summary by clusters:

There are 9 clusters represented in this pham: CU5, CU4, CU3, CU2, CU1, X, DU1, DU2, DP,

Info for manual annotations of cluster CU1:

- •Start number 8 was manually annotated 7 times for cluster CU1.
- •Start number 9 was manually annotated 1 time for cluster CU1.

Info for manual annotations of cluster CU3:

•Start number 6 was manually annotated 1 time for cluster CU3.

Info for manual annotations of cluster CU4:

•Start number 8 was manually annotated 1 time for cluster CU4.

Info for manual annotations of cluster CU5:

•Start number 9 was manually annotated 1 time for cluster CU5.

Info for manual annotations of cluster DP:

•Start number 9 was manually annotated 6 times for cluster DP.

Info for manual annotations of cluster DU1:

•Start number 10 was manually annotated 4 times for cluster DU1.

Info for manual annotations of cluster DU2:

•Start number 11 was manually annotated 3 times for cluster DU2.

Info for manual annotations of cluster X:

•Start number 9 was manually annotated 2 times for cluster X.

#### Gene Information:

Gene: Banquo\_64 Start: 39416, Stop: 39607, Start Num: 8

Candidate Starts for Banquo\_64:

(Start: 8 @ 39416 has 8 MA's), (Start: 9 @ 39419 has 10 MA's), (21, 39509),

Gene: Catfish 65 Start: 41441, Stop: 41635, Start Num: 9

Candidate Starts for Catfish 65:

41465), (16, 41501), (21, 41528), (26, 41573), (30, 41618),

Gene: Dardanus\_59 Start: 37612, Stop: 37863, Start Num: 6

Candidate Starts for Dardanus\_59:

(Start: 6 @37612 has 1 MA's), (Start: 8 @37672 has 8 MA's), (Start: 9 @37675 has 10 MA's), (21,

37765),

Gene: DinoDaryn 65 Start: 39517, Stop: 39708, Start Num: 8

Candidate Starts for DinoDaryn 65:

(Start: 8 @ 39517 has 8 MA's), (Start: 9 @ 39520 has 10 MA's), (17, 39589), (20, 39604), (21, 39610),

Gene: Fryberger\_118 Start: 56377, Stop: 56577, Start Num: 9

Candidate Starts for Fryberger 118:

(Start: 9 @56377 has 10 MA's), (12, 56389), (22, 56470), (24, 56494),

Gene: Gaia\_128 Start: 70504, Stop: 70689, Start Num: 9

Candidate Starts for Gaia 128:

(Start: 9 @70504 has 10 MA's), (20, 70582), (29, 70663),

Gene: Goib 65 Start: 40633, Stop: 40824, Start Num: 8

Candidate Starts for Goib\_65:

(Start: 8 @40633 has 8 MA's), (Start: 9 @40636 has 10 MA's), (21, 40726),

Gene: Gsput1 56 Start: 38093, Stop: 38275, Start Num: 8

Candidate Starts for Gsput1 56:

(Start: 8 @ 38093 has 8 MA's), (Start: 9 @ 38096 has 10 MA's), (14, 38135), (21, 38174), (29, 38243),

Gene: Guey18\_122 Start: 57700, Stop: 57900, Start Num: 9

Candidate Starts for Guey18\_122:

(Start: 9 @57700 has 10 MA's), (12, 57712), (22, 57793), (24, 57817),

Gene: Huffy\_65 Start: 39517, Stop: 39708, Start Num: 8

Candidate Starts for Huffy\_65:

(Start: 8 @ 39517 has 8 MA's), (Start: 9 @ 39520 has 10 MA's), (17, 39589), (20, 39604), (21, 39610),

Gene: Keelan\_119 Start: 57239, Stop: 57442, Start Num: 9

Candidate Starts for Keelan 119:

(Start: 9 @ 57239 has 10 MA's), (12, 57251), (15, 57296), (29, 57404),

Gene: Kudefre\_115 Start: 63249, Stop: 63452, Start Num: 10

Candidate Starts for Kudefre\_115:

(Start: 10 @63249 has 4 MA's), (19, 63312), (23, 63351), (30, 63420),

Gene: Nebkiss 129 Start: 69430, Stop: 69615, Start Num: 9

Candidate Starts for Nebkiss\_129:

(Start: 9 @69430 has 10 MA's), (20, 69508), (29, 69589),

Gene: Neville\_112 Start: 64141, Stop: 64332, Start Num: 11

Candidate Starts for Neville\_112:

(7, 64090), (Start: 11 @64141 has 3 MA's), (14, 64180), (22, 64219), (25, 64258), (27, 64267), (28, 64276), (29, 64288), (30, 64303),

Gene: Octobien14\_111 Start: 62041, Stop: 62244, Start Num: 10

Candidate Starts for Octobien14\_111:

(Start: 10 @62041 has 4 MA's), (19, 62104), (23, 62143), (29, 62197), (30, 62212),

Gene: Rabbitrun\_114 Start: 65218, Stop: 65409, Start Num: 11

Candidate Starts for Rabbitrun\_114:

(Start: 11 @65218 has 3 MA's), (14, 65257), (22, 65296), (25, 65335), (27, 65344), (28, 65353), (30, 65380),

Gene: Ronaldo\_119 Start: 57282, Stop: 57482, Start Num: 9

Candidate Starts for Ronaldo\_119:

(Start: 9 @57282 has 10 MA's), (12, 57294), (22, 57375), (24, 57399),

Gene: Schmidt\_59 Start: 37127, Stop: 37318, Start Num: 8

Candidate Starts for Schmidt\_59:

(1, 36872), (2, 36926), (3, 36935), (4, 36983), (Start: 6 @37067 has 1 MA's), (Start: 8 @37127 has 8 MA's), (Start: 9 @37130 has 10 MA's), (14, 37172), (20, 37205), (21, 37211), (29, 37286),

Gene: Sephiroth 111 Start: 63004, Stop: 63207, Start Num: 10

Candidate Starts for Sephiroth 111:

(Start: 10 @63004 has 4 MA's), (19, 63067), (23, 63106), (30, 63175),

Gene: Splinter\_65 Start: 40605, Stop: 40796, Start Num: 8

Candidate Starts for Splinter\_65:

(Start: 8 @ 40605 has 8 MA's), (Start: 9 @ 40608 has 10 MA's), (21, 40698),

Gene: Syleon 116 Start: 63786, Stop: 63989, Start Num: 10

Candidate Starts for Syleon\_116:

(Start: 10 @63786 has 4 MA's), (19, 63849), (23, 63888), (30, 63957),

Gene: TZGordon\_66 Start: 39493, Stop: 39684, Start Num: 8

Candidate Starts for TZGordon\_66:

(Start: 8 @ 39493 has 8 MA's), (Start: 9 @ 39496 has 10 MA's), (17, 39565), (20, 39580), (21, 39586),

Gene: TinaLin\_64 Start: 39339, Stop: 39527, Start Num: 9

Candidate Starts for TinaLin 64:

(Start: 8 @39336 has 8 MA's), (Start: 9 @39339 has 10 MA's), (21, 39429),

Gene: Trax\_114 Start: 65135, Stop: 65326, Start Num: 11

Candidate Starts for Trax 114:

(5, 65027), (7, 65084), (Start: 11 @65135 has 3 MA's), (14, 65174), (18, 65192), (22, 65213), (29, 65282), (31, 65309),

Gene: Vendetta\_65 Start: 40605, Stop: 40796, Start Num: 8

Candidate Starts for Vendetta 65:

(Start: 8 @ 40605 has 8 MA's), (Start: 9 @ 40608 has 10 MA's), (21, 40698),

Gene: Volt\_122 Start: 57446, Stop: 57646, Start Num: 9

Candidate Starts for Volt\_122:

(Start: 9 @57446 has 10 MA's), (12, 57458), (22, 57539), (24, 57563),

Gene: Ziko\_120 Start: 57288, Stop: 57488, Start Num: 9

Candidate Starts for Ziko\_120:

(Start: 9 @57288 has 10 MA's), (12, 57300), (22, 57381), (24, 57405),