

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 163848 Report

This analysis was run 04/28/24 on database version 559.

Pham number 163848 has 28 members, 11 are drafts.

Phages represented in each track:

- Track 1 : Target 68
- Track 2 : Gwilliam\_55, MrPhizzler\_54, Rimu\_57
- Track 3 : LeiMonet\_55
- Track 4 : Orwigg\_54
- Track 5 : Ben11\_51, SlippinJimmy\_53Track 6 : Halfpint\_50, Heathcliff\_51
- Track 7: InterFolia 6, LordLeafolot 6
- Track 8 : StephanieG 6
- Track 9 : MadMen\_62
- Track 10 : Emma 52, VRedHorse 52, Mova 53
- Track 11: Bobi 55, Krakatau 50, PhesterPhotato 55, Harley 54
- Track 12 : Enby\_53, Lorde\_53
- Track 13 : Latretium\_77Track 14 : Superphikiman\_80
- Track 15: YungJamal 99
- Track 16 : Ryadel 103
- Track 17 : Lilbit 7

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

The start number called the most often in the published annotations is 12, it was called in 8 of the 17 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

 Bobi\_55, Harley\_54, InterFolia\_6, Krakatau\_50, Latretium\_77, LordLeafolot\_6, MadMen\_62, PhesterPhotato\_55, Ryadel\_103, YungJamal\_99,

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

• Emma\_52, Enby\_53, Lorde\_53, Mova\_53, StephanieG\_6, VRedHorse\_52,

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

 Ben11\_51, Gwilliam\_55, Halfpint\_50, Heathcliff\_51, LeiMonet\_55, Lilbit\_7, MrPhizzler\_54, Orwigg\_54, Rimu\_57, SlippinJimmy\_53, Superphikiman\_80, Target 68,

# Summary by start number:

### Start 10:

- Found in 28 of 28 (100.0%) of genes in pham
- Manual Annotations of this start: 5 of 17
- Called 17.9% of time when present
- Phage (with cluster) where this start called: Emma\_52 (F1), Enby\_53 (F1), Lorde\_53 (F1), Mova\_53 (F1), VRedHorse\_52 (F1),

### Start 12:

- Found in 16 of 28 (57.1%) of genes in pham
- Manual Annotations of this start: 8 of 17
- Called 62.5% of time when present
- Phage (with cluster) where this start called: Bobi\_55 (F1), Harley\_54 (F1), InterFolia\_6 (C1), Krakatau\_50 (F1), Latretium\_77 (F1), LordLeafolot\_6 (C1), MadMen\_62 (F1), PhesterPhotato\_55 (F1), Ryadel\_103 (O), YungJamal\_99 (O),

## Start 13:

- Found in 3 of 28 ( 10.7% ) of genes in pham
- Manual Annotations of this start: 1 of 17
- Called 33.3% of time when present
- Phage (with cluster) where this start called: StephanieG\_6 (C1),

#### Start 14:

- Found in 6 of 28 (21.4%) of genes in pham
- Manual Annotations of this start: 1 of 17
- Called 16.7% of time when present
- Phage (with cluster) where this start called: Superphikiman 80 (J),

#### Start 15:

- Found in 1 of 28 (3.6%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Lilbit\_7 (S),

#### Start 17:

- Found in 5 of 28 (17.9%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Gwilliam\_55 (B1), LeiMonet\_55 (B1), MrPhizzler\_54 (B1), Orwigg\_54 (B1), Rimu\_57 (B1),

### Start 19:

- Found in 28 of 28 (100.0%) of genes in pham
- Manual Annotations of this start: 2 of 17
- Called 17.9% of time when present
- Phage (with cluster) where this start called: Ben11\_51 (B3), Halfpint\_50 (B3), Heathcliff\_51 (B3), SlippinJimmy\_53 (B3), Target\_68 (A1),

### Summary by clusters:

There are 8 clusters represented in this pham: F1, J, O, A1, S, B1, B3, C1,

Info for manual annotations of cluster A1:

•Start number 19 was manually annotated 1 time for cluster A1.

Info for manual annotations of cluster B3:

•Start number 19 was manually annotated 1 time for cluster B3.

Info for manual annotations of cluster C1:

- •Start number 12 was manually annotated 1 time for cluster C1.
- •Start number 13 was manually annotated 1 time for cluster C1.

Info for manual annotations of cluster F1:

- •Start number 10 was manually annotated 5 times for cluster F1.
- •Start number 12 was manually annotated 5 times for cluster F1.

Info for manual annotations of cluster J:

•Start number 14 was manually annotated 1 time for cluster J.

Info for manual annotations of cluster O:

•Start number 12 was manually annotated 2 times for cluster O.

# Gene Information:

Gene: Ben11\_51 Start: 45593, Stop: 45426, Start Num: 19

Candidate Starts for Ben11\_51:

(Start: 10 @45695 has 5 MA's), (Start: 14 @45641 has 1 MA's), (Start: 19 @45593 has 2 MA's), (21, 45437),

Gene: Bobi 55 Start: 38256, Stop: 38450, Start Num: 12

Candidate Starts for Bobi 55:

(8, 38190), (Start: 10 @38220 has 5 MA's), (Start: 12 @38256 has 8 MA's), (18, 38316), (Start: 19 @38319 has 2 MA's),

Gene: Emma 52 Start: 36405, Stop: 36638, Start Num: 10

Candidate Starts for Emma 52:

(8, 36375), (Start: 10 @36405 has 5 MA's), (Start: 12 @36441 has 8 MA's), (18, 36501), (Start: 19 @36504 has 2 MA's),

Gene: Enby 53 Start: 35552, Stop: 35782, Start Num: 10

Candidate Starts for Enby\_53:

(7, 35519), (8, 35522), (Start: 10 @35552 has 5 MA's), (Start: 12 @35588 has 8 MA's), (18, 35648), (Start: 19 @35651 has 2 MA's),

Gene: Gwilliam\_55 Start: 47871, Stop: 47680, Start Num: 17

Candidate Starts for Gwilliam 55:

(1, 48108), (2, 48051), (3, 48024), (5, 48003), (6, 47997), (Start: 10 @47949 has 5 MA's), (11, 47925), (16, 47877), (17, 47871), (Start: 19 @47847 has 2 MA's),

Gene: Halfpint\_50 Start: 45128, Stop: 44961, Start Num: 19

Candidate Starts for Halfpint 50:

(Start: 10 @45230 has 5 MA's), (Start: 14 @45176 has 1 MA's), (Start: 19 @45128 has 2 MA's),

Gene: Harley\_54 Start: 37188, Stop: 37382, Start Num: 12

Candidate Starts for Harley\_54:

(8, 37122), (Start: 10 @37152 has 5 MA's), (Start: 12 @37188 has 8 MA's), (18, 37248), (Start: 19 @37251 has 2 MA's).

Gene: Heathcliff\_51 Start: 45274, Stop: 45107, Start Num: 19

Candidate Starts for Heathcliff 51:

(Start: 10 @45376 has 5 MA's), (Start: 14 @45322 has 1 MA's), (Start: 19 @45274 has 2 MA's),

Gene: InterFolia\_6 Start: 1924, Stop: 2115, Start Num: 12

Candidate Starts for InterFolia 6:

(9, 1879), (Start: 10 @1888 has 5 MA's), (Start: 12 @1924 has 8 MA's), (Start: 13 @1933 has 1 MA's), (Start: 19 @1987 has 2 MA's), (20, 2026),

Gene: Krakatau\_50 Start: 36883, Stop: 37077, Start Num: 12

Candidate Starts for Krakatau 50:

(8, 36817), (Start: 10 @36847 has 5 MA's), (Start: 12 @36883 has 8 MA's), (18, 36943), (Start: 19 @36946 has 2 MA's),

Gene: Latretium\_77 Start: 46947, Stop: 47177, Start Num: 12

Candidate Starts for Latretium 77:

(4, 46854), (Start: 10 @46911 has 5 MA's), (Start: 12 @46947 has 8 MA's), (18, 47007), (Start: 19 @47010 has 2 MA's),

Gene: LeiMonet 55 Start: 47494, Stop: 47303, Start Num: 17

Candidate Starts for LeiMonet\_55:

(1, 47731), (2, 47674), (5, 47626), (6, 47620), (Start: 10 @47572 has 5 MA's), (11, 47548), (16, 47500), (17, 47494), (Start: 19 @47470 has 2 MA's),

Gene: Lilbit\_7 Start: 2375, Stop: 2584, Start Num: 15

Candidate Starts for Lilbit 7:

(Start: 10 @2312 has 5 MA's), (15, 2375), (Start: 19 @2417 has 2 MA's),

Gene: LordLeafolot\_6 Start: 1924, Stop: 2115, Start Num: 12

Candidate Starts for LordLeafolot\_6:

(9, 1879), (Start: 10 @1888 has 5 MA's), (Start: 12 @1924 has 8 MA's), (Start: 13 @1933 has 1 MA's), (Start: 19 @1987 has 2 MA's), (20, 2026),

Gene: Lorde\_53 Start: 35527, Stop: 35757, Start Num: 10

Candidate Starts for Lorde 53:

(7, 35494), (8, 35497), (Start: 10 @35527 has 5 MA's), (Start: 12 @35563 has 8 MA's), (18, 35623), (Start: 19 @35626 has 2 MA's),

Gene: MadMen\_62 Start: 41080, Stop: 41310, Start Num: 12

Candidate Starts for MadMen\_62:

(Start: 10 @41044 has 5 MA's), (Start: 12 @41080 has 8 MA's), (18, 41140), (Start: 19 @41143 has 2 MA's),

Gene: Mova\_53 Start: 36684, Stop: 36917, Start Num: 10

Candidate Starts for Mova\_53:

(8, 36654), (Start: 10 @36684 has 5 MA's), (Start: 12 @36720 has 8 MA's), (18, 36780), (Start: 19 @36783 has 2 MA's),

Gene: MrPhizzler\_54 Start: 47472, Stop: 47281, Start Num: 17

Candidate Starts for MrPhizzler\_54:

(1, 47709), (2, 47652), (3, 47625), (5, 47604), (6, 47598), (Start: 10 @47550 has 5 MA's), (11, 47526), (16, 47478), (17, 47472), (Start: 19 @47448 has 2 MA's),

Gene: Orwigg\_54 Start: 47496, Stop: 47305, Start Num: 17

Candidate Starts for Orwigg\_54:

(1, 47733), (2, 47676), (3, 47649), (5, 47628), (6, 47622), (Start: 10 @47574 has 5 MA's), (11, 47550), (16, 47502), (17, 47496), (Start: 19 @47472 has 2 MA's), (21, 47316),

Gene: PhesterPhotato\_55 Start: 37629, Stop: 37826, Start Num: 12

Candidate Starts for PhesterPhotato\_55:

(8, 37563), (Start: 10 @37593 has 5 MA's), (Start: 12 @37629 has 8 MA's), (18, 37689), (Start: 19 @37692 has 2 MA's),

Gene: Rimu 57 Start: 47492, Stop: 47301, Start Num: 17

Candidate Starts for Rimu\_57:

(1, 47729), (2, 47672), (3, 47645), (5, 47624), (6, 47618), (Start: 10 @47570 has 5 MA's), (11, 47546), (16, 47498), (17, 47492), (Start: 19 @47468 has 2 MA's),

Gene: Ryadel\_103 Start: 62455, Stop: 62225, Start Num: 12

Candidate Starts for Ryadel\_103:

(Start: 10 @62491 has 5 MA's), (Start: 12 @62455 has 8 MA's), (18, 62395), (Start: 19 @62392 has 2 MA's),

Gene: SlippinJimmy\_53 Start: 46540, Stop: 46373, Start Num: 19

Candidate Starts for SlippinJimmy\_53:

(Start: 10 @46642 has 5 MA's), (Start: 14 @46588 has 1 MA's), (Start: 19 @46540 has 2 MA's), (21, 46384),

Gene: StephanieG 6 Start: 1933, Stop: 2115, Start Num: 13

Candidate Starts for StephanieG 6:

(9, 1879), (Start: 10 @1888 has 5 MA's), (Start: 12 @1924 has 8 MA's), (Start: 13 @1933 has 1 MA's), (Start: 19 @1987 has 2 MA's), (20, 2026),

Gene: Superphikiman\_80 Start: 49081, Stop: 48866, Start Num: 14

Candidate Starts for Superphikiman\_80:

(Start: 10 @49135 has 5 MA's), (Start: 14 @49081 has 1 MA's), (Start: 19 @49033 has 2 MA's),

Gene: Target\_68 Start: 42412, Stop: 42245, Start Num: 19

Candidate Starts for Target 68:

(Start: 10 @42514 has 5 MA's), (Start: 14 @42460 has 1 MA's), (Start: 19 @42412 has 2 MA's),

Gene: VRedHorse\_52 Start: 36525, Stop: 36758, Start Num: 10

Candidate Starts for VRedHorse\_52:

(8, 36495), (Start: 10 @36525 has 5 MA's), (Start: 12 @36561 has 8 MA's), (18, 36621), (Start: 19 @36624 has 2 MA's),

Gene: YungJamal 99 Start: 61508, Stop: 61278, Start Num: 12

Candidate Starts for YungJamal\_99:

(Start: 10 @61544 has 5 MA's), (Start: 12 @61508 has 8 MA's), (18, 61448), (Start: 19 @61445 has 2 MA's),