

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 171763 Report

This analysis was run 07/10/24 on database version 566.

Pham number 171763 has 22 members, 2 are drafts.

Phages represented in each track:

- Track 1: Forsytheast\_61, Moose\_61, Bruns\_61, SwissCheese\_63
- Track 2 : Pepe\_58, SkiPole\_67
- Track 3 : Seanderson\_62
- Track 4 : Farewell\_69
- Track 5 : Getalong 46
- Track 6 : Chevrolet\_60, Royals2015\_53, ArcusAngelus\_54
- Track 7 : Ogopogo 51
- Track 8 : Che8\_53
- Track 9 : MilleniumForce 53
- Track 10 : Duplicity\_53, Melville\_59
- Track 11 : Silvafighter 56
- Track 12 : Tortellini 64
- Track 13 : GodPhather\_65
- Track 14 : Jeon\_63
- Track 15 : LilSpotty 71

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

The start number called the most often in the published annotations is 20, it was called in 8 of the 20 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

• Bruns\_61, Forsytheast\_61, GodPhather\_65, Moose\_61, Pepe\_58, Seanderson\_62, SkiPole\_67, SwissCheese\_63,

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

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

• ArcusAngelus\_54, Che8\_53, Chevrolet\_60, Duplicity\_53, Farewell\_69, Getalong\_46, Jeon\_63, LilSpotty\_71, Melville\_59, MilleniumForce\_53, Ogopogo\_51, Royals2015\_53, Silvafighter\_56, Tortellini\_64,

## Summary by start number:

#### Start 6:

- Found in 5 of 22 (22.7%) of genes in pham
- Manual Annotations of this start: 2 of 20
- Called 40.0% of time when present
- Phage (with cluster) where this start called: Farewell 69 (AF), Silvafighter 56 (N),

## Start 7:

- Found in 1 of 22 (4.5%) of genes in pham
- Manual Annotations of this start: 1 of 20
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Tortellini\_64 (P2),

#### Start 8:

- Found in 6 of 22 (27.3%) of genes in pham
- Manual Annotations of this start: 1 of 20
- Called 16.7% of time when present
- Phage (with cluster) where this start called: Ogopogo\_51 (F1),

#### Start 13:

- Found in 7 of 22 (31.8%) of genes in pham
- Manual Annotations of this start: 3 of 20
- Called 57.1% of time when present
- Phage (with cluster) where this start called: Duplicity\_53 (N), Jeon\_63 (W), LilSpotty\_71 (singleton), Melville\_59 (N),

#### Start 16:

- Found in 8 of 22 (36.4%) of genes in pham
- Manual Annotations of this start: 3 of 20
- Called 50.0% of time when present
- Phage (with cluster) where this start called: ArcusAngelus\_54 (F1), Che8\_53 (F1), Chevrolet\_60 (F1), Royals2015\_53 (F1),

## Start 17:

- Found in 1 of 22 (4.5%) of genes in pham
- Manual Annotations of this start: 1 of 20
- Called 100.0% of time when present
- Phage (with cluster) where this start called: MilleniumForce 53 (F1),

#### Start 18:

- Found in 3 of 22 (13.6%) of genes in pham
- Manual Annotations of this start: 1 of 20
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Getalong\_46 (DN1),

#### Start 20:

- Found in 8 of 22 (36.4%) of genes in pham
- Manual Annotations of this start: 8 of 20
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Bruns\_61 (A1), Forsytheast\_61 (A1), GodPhather\_65 (W), Moose\_61 (A1), Pepe\_58 (A1), Seanderson\_62 (A1), SkiPole\_67 (A1), SwissCheese\_63 (A1),

## **Summary by clusters:**

There are 8 clusters represented in this pham: P2, F1, singleton, AF, N, A1, DN1, W,

Info for manual annotations of cluster A1:

•Start number 20 was manually annotated 7 times for cluster A1.

Info for manual annotations of cluster AF:

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

Info for manual annotations of cluster DN1:

•Start number 18 was manually annotated 1 time for cluster DN1.

Info for manual annotations of cluster F1:

- •Start number 8 was manually annotated 1 time for cluster F1.
- •Start number 16 was manually annotated 3 times for cluster F1.
- •Start number 17 was manually annotated 1 time for cluster F1.

Info for manual annotations of cluster N:

- •Start number 6 was manually annotated 1 time for cluster N.
- •Start number 13 was manually annotated 1 time for cluster N.

Info for manual annotations of cluster P2:

•Start number 7 was manually annotated 1 time for cluster P2.

Info for manual annotations of cluster W:

- •Start number 13 was manually annotated 1 time for cluster W.
- •Start number 20 was manually annotated 1 time for cluster W.

### Gene Information:

Gene: ArcusAngelus 54 Start: 38017, Stop: 38256, Start Num: 16

Candidate Starts for ArcusAngelus 54:

(Start: 16 @38017 has 3 MA's), (21, 38050), (23, 38077), (27, 38101), (41, 38239),

Gene: Bruns 61 Start: 39972, Stop: 39745, Start Num: 20

Candidate Starts for Bruns 61:

(Start: 20 @39972 has 8 MA's), (25, 39924), (32, 39864),

Gene: Che8\_53 Start: 37842, Stop: 38123, Start Num: 16

Candidate Starts for Che8 53:

(Start: 16 @37842 has 3 MA's), (21, 37875), (23, 37902), (24, 37914), (27, 37926), (39, 38040),

Gene: Chevrolet\_60 Start: 38018, Stop: 38257, Start Num: 16

Candidate Starts for Chevrolet\_60:

(Start: 16 @38018 has 3 MA's), (21, 38051), (23, 38078), (27, 38102), (41, 38240),

Gene: Duplicity 53 Start: 35954, Stop: 36301, Start Num: 13

Candidate Starts for Duplicity 53:

(Start: 6 @35864 has 2 MA's), (Start: 8 @35900 has 1 MA's), (Start: 13 @35954 has 3 MA's), (Start:

16 @35996 has 3 MA's), (19, 36017), (26, 36068), (40, 36197), (45, 36239),

Gene: Farewell\_69 Start: 47142, Stop: 47591, Start Num: 6

Candidate Starts for Farewell 69:

(1, 47049), (4, 47109), (5, 47133), (Start: 6 @ 47142 has 2 MA's), (Start: 8 @ 47178 has 1 MA's), (Start: 13 @ 47235 has 3 MA's), (31, 47406), (35, 47436), (36, 47442), (37, 47445), (38, 47448), (44, 47520), (46, 47553),

Gene: Forsytheast\_61 Start: 40140, Stop: 39913, Start Num: 20

Candidate Starts for Forsytheast\_61:

(Start: 20 @40140 has 8 MA's), (25, 40092), (32, 40032),

Gene: Getalong\_46 Start: 32723, Stop: 33001, Start Num: 18

Candidate Starts for Getalong\_46:

(Start: 18 @32723 has 1 MA's), (24, 32789), (28, 32813), (29, 32816), (30, 32819), (43, 32963),

Gene: GodPhather\_65 Start: 49176, Stop: 49409, Start Num: 20

Candidate Starts for GodPhather\_65:

(Start: 20 @49176 has 8 MA's), (25, 49224), (32, 49284), (44, 49389),

Gene: Jeon\_63 Start: 48868, Stop: 49173, Start Num: 13

Candidate Starts for Jeon\_63:

(2, 48709), (Start: 13 @48868 has 3 MA's), (15, 48880), (21, 48943), (22, 48958), (24, 48985), (26, 48991), (31, 49039), (44, 49153),

Gene: LilSpotty\_71 Start: 43082, Stop: 43513, Start Num: 13

Candidate Starts for LilSpotty\_71:

(Start: 6 @42992 has 2 MA's), (Start: 8 @43028 has 1 MA's), (Start: 13 @43082 has 3 MA's), (Start: 16 @43124 has 3 MA's), (34, 43286), (40, 43349), (48, 43466),

Gene: Melville\_59 Start: 36268, Stop: 36615, Start Num: 13

Candidate Starts for Melville\_59:

(Start: 6 @36178 has 2 MA's), (Start: 8 @36214 has 1 MA's), (Start: 13 @36268 has 3 MA's), (Start: 16 @36310 has 3 MA's), (19, 36331), (26, 36382), (40, 36511), (45, 36553),

Gene: MilleniumForce\_53 Start: 38559, Stop: 38825, Start Num: 17

Candidate Starts for MilleniumForce\_53:

(Start: 17 @38559 has 1 MA's), (Start: 18 @38562 has 1 MA's), (21, 38589), (23, 38616), (27, 38640),

Gene: Moose\_61 Start: 40140, Stop: 39913, Start Num: 20

Candidate Starts for Moose\_61:

(Start: 20 @40140 has 8 MA's), (25, 40092), (32, 40032),

Gene: Ogopogo\_51 Start: 36143, Stop: 36514, Start Num: 8

Candidate Starts for Ogopogo 51:

(Start: 8 @36143 has 1 MA's), (9, 36155), (11, 36176), (12, 36182), (Start: 13 @36191 has 3 MA's), (31, 36362), (41, 36458), (42, 36467),

Gene: Pepe\_58 Start: 39571, Stop: 39344, Start Num: 20

Candidate Starts for Pepe\_58:

(Start: 20 @39571 has 8 MA's), (25, 39523), (32, 39463), (33, 39460),

Gene: Royals2015\_53 Start: 36891, Stop: 37130, Start Num: 16

Candidate Starts for Royals2015\_53:

(Start: 16 @36891 has 3 MA's), (21, 36924), (23, 36951), (27, 36975), (41, 37113),

Gene: Seanderson\_62 Start: 42352, Stop: 42125, Start Num: 20

Candidate Starts for Seanderson\_62:

(Start: 20 @42352 has 8 MA's), (25, 42304), (32, 42244),

Gene: Silvafighter\_56 Start: 36170, Stop: 36607, Start Num: 6

Candidate Starts for Silvafighter\_56:

(Start: 6 @36170 has 2 MA's), (Start: 8 @36206 has 1 MA's), (Start: 13 @36260 has 3 MA's), (Start: 16 @36302 has 3 MA's), (19, 36323), (26, 36374), (40, 36503), (45, 36545),

Gene: SkiPole\_67 Start: 41615, Stop: 41388, Start Num: 20

Candidate Starts for SkiPole\_67:

(Start: 20 @41615 has 8 MA's), (25, 41567), (32, 41507), (33, 41504),

Gene: SwissCheese\_63 Start: 40640, Stop: 40413, Start Num: 20

Candidate Starts for SwissCheese 63:

(Start: 20 @40640 has 8 MA's), (25, 40592), (32, 40532),

Gene: Tortellini\_64 Start: 43747, Stop: 44214, Start Num: 7

Candidate Starts for Tortellini\_64:

(3, 43702), (Start: 7 @ 43747 has 1 MA's), (10, 43822), (14, 43846), (Start: 18 @ 43888 has 1 MA's),

(47, 44155), (49, 44200),