

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 221952 Report

This analysis was run 03/28/25 on database version 593.

Pham number 221952 has 12 members, 2 are drafts.

Phages represented in each track:

• Track 1 : BritBrat 59

Track 2 : OneDirection\_48

Track 3: Lucky10\_51, Holliday\_75

Track 4: Birdsong\_69, Frickyeah\_76, Whitney\_71, Budski\_76, Asapag\_70

Track 5 : ShawBrad\_76

• Track 6 : CheeseTouch\_68

Track 7 : Kuwabara 65

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

The start number called the most often in the published annotations is 8, it was called in 10 of the 10 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

• Asapag\_70, Birdsong\_69, BritBrat\_59, Budski\_76, CheeseTouch\_68, Frickyeah\_76, Holliday\_75, Kuwabara\_65, Lucky10\_51, OneDirection\_48, Whitney\_71,

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

ShawBrad 76.

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

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# Summary by start number:

#### Start 8:

- Found in 12 of 12 (100.0%) of genes in pham
- Manual Annotations of this start: 10 of 10
- Called 91.7% of time when present
- Phage (with cluster) where this start called: Asapag\_70 (DN1), Birdsong\_69 (DN), BritBrat\_59 (CY2), Budski\_76 (DN), CheeseTouch\_68 (DN1), Frickyeah\_76 (DN1), Holliday\_75 (DN1), Kuwabara\_65 (DN4), Lucky10\_51 (DH), OneDirection\_48 (CZ6), Whitney\_71 (DN1),

#### Start 11:

- Found in 9 of 12 (75.0%) of genes in pham
- No Manual Annotations of this start.
- Called 11.1% of time when present
- Phage (with cluster) where this start called: ShawBrad\_76 (DN1),

### **Summary by clusters:**

There are 6 clusters represented in this pham: DN, CY2, DH, CZ6, DN4, DN1,

Info for manual annotations of cluster CY2:

•Start number 8 was manually annotated 1 time for cluster CY2.

Info for manual annotations of cluster CZ6:

•Start number 8 was manually annotated 1 time for cluster CZ6.

Info for manual annotations of cluster DH:

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

Info for manual annotations of cluster DN:

•Start number 8 was manually annotated 2 times for cluster DN.

Info for manual annotations of cluster DN1:

•Start number 8 was manually annotated 4 times for cluster DN1.

Info for manual annotations of cluster DN4:

•Start number 8 was manually annotated 1 time for cluster DN4.

#### Gene Information:

Gene: Asapag 70 Start: 42360, Stop: 42665, Start Num: 8

Candidate Starts for Asapag 70:

(6, 42282), (Start: 8 @ 42360 has 10 MA's), (9, 42384), (11, 42423), (12, 42426), (13, 42462), (18, 42552), (21, 42618), (22, 42642),

Gene: Birdsong 69 Start: 42096, Stop: 42401, Start Num: 8

Candidate Starts for Birdsong 69:

(6, 42018), (Start: 8 @ 42096 has 10 MA's), (9, 42120), (11, 42159), (12, 42162), (13, 42198), (18, 42288), (21, 42354), (22, 42378),

Gene: BritBrat 59 Start: 40775, Stop: 41077, Start Num: 8

Candidate Starts for BritBrat\_59:

(Start: 8 @ 40775 has 10 MA's), (9, 40796), (12, 40838), (18, 40964), (21, 41030), (22, 41054),

Gene: Budski\_76 Start: 44217, Stop: 44522, Start Num: 8

Candidate Starts for Budski\_76:

(6, 44139), (Start: 8 @ 44217 has 10 MA's), (9, 44241), (11, 44280), (12, 44283), (13, 44319), (18, 44409), (21, 44475), (22, 44499),

Gene: CheeseTouch 68 Start: 36876, Stop: 37178, Start Num: 8

Candidate Starts for CheeseTouch\_68:

(3, 36597), (5, 36750), (7, 36864), (Start: 8 @36876 has 10 MA's), (9, 36897), (12, 36939), (21, 37131), (22, 37155),

Gene: Frickyeah\_76 Start: 43495, Stop: 43800, Start Num: 8

Candidate Starts for Frickyeah\_76:

(6, 43417), (Start: 8 @43495 has 10 MA's), (9, 43519), (11, 43558), (12, 43561), (13, 43597), (18, 43687), (21, 43753), (22, 43777),

Gene: Holliday\_75 Start: 46470, Stop: 46775, Start Num: 8

Candidate Starts for Holliday 75:

(Start: 8 @ 46470 has 10 MA's), (9, 46494), (11, 46533), (12, 46536), (13, 46572), (18, 46662), (21, 46728), (22, 46752),

Gene: Kuwabara\_65 Start: 41274, Stop: 41582, Start Num: 8

Candidate Starts for Kuwabara\_65:

(1, 40890), (2, 40989), (3, 40995), (4, 41037), (5, 41148), (7, 41262), (Start: 8 @41274 has 10 MA's), (14, 41379), (15, 41397), (16, 41439), (17, 41442), (19, 41484), (20, 41502), (22, 41559),

Gene: Lucky10 51 Start: 34880, Stop: 35185, Start Num: 8

Candidate Starts for Lucky10\_51:

(Start: 8 @34880 has 10 MA's), (9, 34904), (11, 34943), (12, 34946), (13, 34982), (18, 35072), (21, 35138), (22, 35162),

Gene: OneDirection\_48 Start: 31802, Stop: 32107, Start Num: 8

Candidate Starts for OneDirection 48:

(Start: 8 @31802 has 10 MA's), (9, 31826), (10, 31835), (11, 31865), (12, 31868), (13, 31904), (17, 31973), (18, 31994), (21, 32060), (22, 32084),

Gene: ShawBrad\_76 Start: 43080, Stop: 43322, Start Num: 11

Candidate Starts for ShawBrad\_76:

(Start: 8 @43017 has 10 MA's), (9, 43041), (11, 43080), (12, 43083), (13, 43119), (18, 43209), (21, 43275), (22, 43299),

Gene: Whitney 71 Start: 44130, Stop: 44435, Start Num: 8

Candidate Starts for Whitney\_71:

(6, 44052), (Start: 8 @44130 has 10 MA's), (9, 44154), (11, 44193), (12, 44196), (13, 44232), (18, 44322), (21, 44388), (22, 44412),