

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 106651 Report

This analysis was run 03/30/24 on database version 556.

Pham number 106651 has 18 members, 1 are drafts.

Phages represented in each track:

Track 1: JEGGS 53, Heisenberger 53

• Track 2: Circum 56

 Track 3: Dynamite\_54, KeaneyLin\_53, GoCrazy\_53, Hankly\_53, NapoleonB\_54, Benllo 55, BenitoAntonio 54

Track 4: Xenomorph 51

Track 5 : Elsa\_54, Nason\_54, Arcadia\_54

Track 6 : Cheesy\_54Track 7 : Tribby\_55Track 8 : Mudcat 51

• Track 9 : Kardesai\_55

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

The start number called the most often in the published annotations is 5, it was called in 13 of the 17 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

• Arcadia\_54, BenitoAntonio\_54, Benllo\_55, Circum\_56, Dynamite\_54, Elsa\_54, GoCrazy\_53, Hankly\_53, Heisenberger\_53, JEGGS\_53, KeaneyLin\_53, NapoleonB\_54, Nason\_54, Tribby\_55,

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

• Cheesy\_54, Kardesai\_55, Mudcat\_51, Xenomorph\_51,

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

### Summary by start number:

#### Start 4:

- Found in 18 of 18 (100.0%) of genes in pham
- Manual Annotations of this start: 2 of 17
- Called 11.1% of time when present
- Phage (with cluster) where this start called: Kardesai 55 (AM), Mudcat 51 (AM).

#### Start 5:

- Found in 18 of 18 (100.0%) of genes in pham
- Manual Annotations of this start: 13 of 17
- Called 77.8% of time when present
- Phage (with cluster) where this start called: Arcadia\_54 (AM), BenitoAntonio\_54 (AM), Benilo\_55 (AM), Circum\_56 (AM), Dynamite\_54 (AM), Elsa\_54 (AM), GoCrazy\_53 (AM), Hankly\_53 (AM), Heisenberger\_53 (AM), JEGGS\_53 (AM), KeaneyLin\_53 (AM), NapoleonB\_54 (AM), Nason\_54 (AM), Tribby\_55 (AM),

#### Start 6:

- Found in 6 of 18 (33.3%) of genes in pham
- Manual Annotations of this start: 2 of 17
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Cheesy\_54 (AM), Xenomorph\_51 (AM),

## Summary by clusters:

There is one cluster represented in this pham: AM

Info for manual annotations of cluster AM:

- •Start number 4 was manually annotated 2 times for cluster AM.
- •Start number 5 was manually annotated 13 times for cluster AM.
- •Start number 6 was manually annotated 2 times for cluster AM.

### Gene Information:

Gene: Arcadia\_54 Start: 34028, Stop: 34246, Start Num: 5

Candidate Starts for Arcadia 54:

(1, 33968), (3, 34004), (Start: 4 @ 34022 has 2 MA's), (Start: 5 @ 34028 has 13 MA's), (11, 34223),

Gene: BenitoAntonio 54 Start: 33562, Stop: 33780, Start Num: 5

Candidate Starts for BenitoAntonio 54:

(1, 33502), (Start: 4 @ 33556 has 2 MA's), (Start: 5 @ 33562 has 13 MA's), (9, 33679),

Gene: Benllo 55 Start: 34240, Stop: 34458, Start Num: 5

Candidate Starts for Benllo 55:

(1, 34180), (Start: 4 @34234 has 2 MA's), (Start: 5 @34240 has 13 MA's), (9, 34357),

Gene: Cheesy\_54 Start: 33806, Stop: 33964, Start Num: 6

Candidate Starts for Cheesy 54:

(1, 33686), (Start: 4 @ 33740 has 2 MA's), (Start: 5 @ 33746 has 13 MA's), (Start: 6 @ 33806 has 2 MA's), (7, 33821), (8, 33827), (11, 33941),

Gene: Circum\_56 Start: 34431, Stop: 34649, Start Num: 5

Candidate Starts for Circum 56:

(1, 34371), (3, 34407), (Start: 4 @ 34425 has 2 MA's), (Start: 5 @ 34431 has 13 MA's), (9, 34548),

Gene: Dynamite 54 Start: 33955, Stop: 34173, Start Num: 5

Candidate Starts for Dynamite 54:

(1, 33895), (Start: 4 @33949 has 2 MA's), (Start: 5 @33955 has 13 MA's), (9, 34072),

Gene: Elsa\_54 Start: 34028, Stop: 34246, Start Num: 5

Candidate Starts for Elsa\_54:

(1, 33968), (3, 34004), (Start: 4 @ 34022 has 2 MA's), (Start: 5 @ 34028 has 13 MA's), (11, 34223),

Gene: GoCrazy\_53 Start: 33896, Stop: 34114, Start Num: 5

Candidate Starts for GoCrazy\_53:

(1, 33836), (Start: 4 @33890 has 2 MA's), (Start: 5 @33896 has 13 MA's), (9, 34013),

Gene: Hankly\_53 Start: 33170, Stop: 33388, Start Num: 5

Candidate Starts for Hankly 53:

(1, 33110), (Start: 4 @33164 has 2 MA's), (Start: 5 @33170 has 13 MA's), (9, 33287),

Gene: Heisenberger\_53 Start: 33451, Stop: 33669, Start Num: 5

Candidate Starts for Heisenberger\_53:

(1, 33391), (Start: 4 @33445 has 2 MA's), (Start: 5 @33451 has 13 MA's), (Start: 6 @33511 has 2 MA's), (11, 33646),

Gene: JEGGS 53 Start: 33506, Stop: 33724, Start Num: 5

Candidate Starts for JEGGS\_53:

(1, 33446), (Start: 4 @33500 has 2 MA's), (Start: 5 @33506 has 13 MA's), (Start: 6 @33566 has 2 MA's), (11, 33701),

Gene: Kardesai\_55 Start: 34134, Stop: 34358, Start Num: 4

Candidate Starts for Kardesai 55:

(1, 34080), (Start: 4 @34134 has 2 MA's), (Start: 5 @34140 has 13 MA's), (9, 34257),

Gene: KeaneyLin 53 Start: 33896, Stop: 34114, Start Num: 5

Candidate Starts for KeaneyLin\_53:

(1, 33836), (Start: 4 @33890 has 2 MA's), (Start: 5 @33896 has 13 MA's), (9, 34013),

Gene: Mudcat\_51 Start: 34858, Stop: 35082, Start Num: 4

Candidate Starts for Mudcat\_51:

(1, 34804), (Start: 4 @34858 has 2 MA's), (Start: 5 @34864 has 13 MA's), (Start: 6 @34924 has 2 MA's), (10, 35020), (11, 35059),

Gene: NapoleonB\_54 Start: 33955, Stop: 34173, Start Num: 5

Candidate Starts for NapoleonB\_54:

(1, 33895), (Start: 4 @33949 has 2 MA's), (Start: 5 @33955 has 13 MA's), (9, 34072),

Gene: Nason\_54 Start: 34028, Stop: 34246, Start Num: 5

Candidate Starts for Nason\_54:

(1, 33968), (3, 34004), (Start: 4 @34022 has 2 MA's), (Start: 5 @34028 has 13 MA's), (11, 34223),

Gene: Tribby 55 Start: 33969, Stop: 34187, Start Num: 5

Candidate Starts for Tribby 55:

(1, 33909), (3, 33945), (Start: 4 @ 33963 has 2 MA's), (Start: 5 @ 33969 has 13 MA's), (Start: 6 @ 34029 has 2 MA's), (7, 34044), (8, 34050),

Gene: Xenomorph 51 Start: 33759, Stop: 33917, Start Num: 6

Candidate Starts for Xenomorph 51:

(1, 33639), (2, 33663), (3, 33675), (Start: 4 @33693 has 2 MA's), (Start: 5 @33699 has 13 MA's), (Start: 6 @33759 has 2 MA's), (7, 33774), (8, 33780),