



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 280746 Report

This analysis was run 02/07/26 on database version 634.

Pham number 280746 has 29 members, 4 are drafts.

Phages represented in each track:

- Track 1 : NoShow\_5
- Track 2 : Bernardo\_79
- Track 3 : Saguaro\_73
- Track 4 : Nova53\_141
- Track 5 : Cloudyecho\_58
- Track 6 : MOOREtheMARYer\_59
- Track 7 : Pinnie\_57
- Track 8 : YangYin\_57, Stargaze\_57
- Track 9 : LittleLaf\_21, Clarkson\_22, Marvin\_20, VasuNzinga\_20, Pringar\_21, JoieB\_22, FeliMaine\_22, Beelzebub\_25, Corazon\_20
- Track 10 : GoongGoong\_20
- Track 11 : Lilbit\_21
- Track 12 : Blackbeetle\_22, Huphlepuuff\_23, Gattaca\_21, MosMoris\_20, Raela\_22, Caprice\_18, Tesla\_21, RedRaider77\_22, Poise\_22

### ***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 17 of the 25 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Beelzebub\_25, Blackbeetle\_22, Caprice\_18, Clarkson\_22, Corazon\_20, FeliMaine\_22, Gattaca\_21, Huphlepuuff\_23, JoieB\_22, LittleLaf\_21, Marvin\_20, MosMoris\_20, Poise\_22, Pringar\_21, Raela\_22, RedRaider77\_22, Tesla\_21, VasuNzinga\_20,

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

- GoongGoong\_20, Lilbit\_21,

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

- Bernardo\_79, Cloudyecho\_58, MOOREtheMARYer\_59, NoShow\_5, Nova53\_141, Pinnie\_57, Saguaro\_73, Stargaze\_57, YangYin\_57,

### **Summary by start number:**

Start 5:

- Found in 6 of 29 ( 20.7% ) of genes in pham
- Manual Annotations of this start: 4 of 25
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Cloudyecho\_58 (G3), MOOREtheMARYer\_59 (G3), NoShow\_5 (AB), Pinnie\_57 (G3), Stargaze\_57 (G5), YangYin\_57 (G5),

Start 6:

- Found in 1 of 29 ( 3.4% ) of genes in pham
- Manual Annotations of this start: 1 of 25
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Nova53\_141 (CG),

Start 7:

- Found in 1 of 29 ( 3.4% ) of genes in pham
- Manual Annotations of this start: 1 of 25
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Bernardo\_79 (B3),

Start 8:

- Found in 20 of 29 ( 69.0% ) of genes in pham
- Manual Annotations of this start: 17 of 25
- Called 90.0% of time when present
- Phage (with cluster) where this start called: Beelzebub\_25 (S), Blackbeetle\_22 (S), Caprice\_18 (S), Clarkson\_22 (S), Corazon\_20 (S), FeliMaine\_22 (S), Gattaca\_21 (S), Huphlepuuff\_23 (S), JoieB\_22 (S), LittleLaf\_21 (S), Marvin\_20 (S), MosMoris\_20 (S), Poise\_22 (S), Pringar\_21 (S), Raela\_22 (S), RedRaider77\_22 (S), Tesla\_21 (S), VasuNzinga\_20 (S),

Start 9:

- Found in 1 of 29 ( 3.4% ) of genes in pham
- Manual Annotations of this start: 1 of 25
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Saguaro\_73 (B7),

Start 11:

- Found in 20 of 29 ( 69.0% ) of genes in pham
- Manual Annotations of this start: 1 of 25
- Called 10.0% of time when present
- Phage (with cluster) where this start called: GoongGoong\_20 (S), Lilbit\_21 (S),

**Summary by clusters:**

There are 7 clusters represented in this pham: G5, AB, G3, CG, S, B7, B3,

Info for manual annotations of cluster AB:

- Start number 5 was manually annotated 1 time for cluster AB.

Info for manual annotations of cluster B3:

- Start number 7 was manually annotated 1 time for cluster B3.

Info for manual annotations of cluster B7:

- Start number 9 was manually annotated 1 time for cluster B7.

Info for manual annotations of cluster CG:

- Start number 6 was manually annotated 1 time for cluster CG.

Info for manual annotations of cluster G3:

- Start number 5 was manually annotated 2 times for cluster G3.

Info for manual annotations of cluster G5:

- Start number 5 was manually annotated 1 time for cluster G5.

Info for manual annotations of cluster S:

- Start number 8 was manually annotated 17 times for cluster S.
- Start number 11 was manually annotated 1 time for cluster S.

### ***Gene Information:***

Gene: Beelzebub\_25 Start: 6549, Stop: 6704, Start Num: 8

Candidate Starts for Beelzebub\_25:

(Start: 8 @6549 has 17 MA's), (Start: 11 @6588 has 1 MA's),

Gene: Bernardo\_79 Start: 60792, Stop: 60604, Start Num: 7

Candidate Starts for Bernardo\_79:

(Start: 7 @60792 has 1 MA's), (13, 60720),

Gene: Blackbeetle\_22 Start: 5882, Stop: 6037, Start Num: 8

Candidate Starts for Blackbeetle\_22:

(Start: 8 @5882 has 17 MA's), (Start: 11 @5921 has 1 MA's), (14, 5960),

Gene: Caprice\_18 Start: 5113, Stop: 5268, Start Num: 8

Candidate Starts for Caprice\_18:

(Start: 8 @5113 has 17 MA's), (Start: 11 @5152 has 1 MA's), (14, 5191),

Gene: Clarkson\_22 Start: 6250, Stop: 6405, Start Num: 8

Candidate Starts for Clarkson\_22:

(Start: 8 @6250 has 17 MA's), (Start: 11 @6289 has 1 MA's),

Gene: Cloudyecho\_58 Start: 41162, Stop: 41344, Start Num: 5

Candidate Starts for Cloudyecho\_58:

(1, 40928), (2, 40934), (Start: 5 @41162 has 4 MA's),

Gene: Corazon\_20 Start: 6203, Stop: 6358, Start Num: 8

Candidate Starts for Corazon\_20:

(Start: 8 @6203 has 17 MA's), (Start: 11 @6242 has 1 MA's),

Gene: FeliMaine\_22 Start: 6251, Stop: 6406, Start Num: 8

Candidate Starts for FeliMaine\_22:

(Start: 8 @6251 has 17 MA's), (Start: 11 @6290 has 1 MA's),

Gene: Gattaca\_21 Start: 5771, Stop: 5926, Start Num: 8

Candidate Starts for Gattaca\_21:

(Start: 8 @5771 has 17 MA's), (Start: 11 @5810 has 1 MA's), (14, 5849),

Gene: GoongGoong\_20 Start: 5823, Stop: 5939, Start Num: 11

Candidate Starts for GoongGoong\_20:

(Start: 8 @5784 has 17 MA's), (Start: 11 @5823 has 1 MA's), (14, 5862),

Gene: Huphlebuff\_23 Start: 6055, Stop: 6210, Start Num: 8

Candidate Starts for Huphlebuff\_23:

(Start: 8 @6055 has 17 MA's), (Start: 11 @6094 has 1 MA's), (14, 6133),

Gene: JoieB\_22 Start: 6274, Stop: 6429, Start Num: 8

Candidate Starts for JoieB\_22:

(Start: 8 @6274 has 17 MA's), (Start: 11 @6313 has 1 MA's),

Gene: Lilbit\_21 Start: 6290, Stop: 6406, Start Num: 11

Candidate Starts for Lilbit\_21:

(Start: 8 @6251 has 17 MA's), (Start: 11 @6290 has 1 MA's),

Gene: LittleLaf\_21 Start: 5980, Stop: 6135, Start Num: 8

Candidate Starts for LittleLaf\_21:

(Start: 8 @5980 has 17 MA's), (Start: 11 @6019 has 1 MA's),

Gene: MOOREtheMARYer\_59 Start: 40807, Stop: 40995, Start Num: 5

Candidate Starts for MOOREtheMARYer\_59:

(Start: 5 @40807 has 4 MA's),

Gene: Marvin\_20 Start: 6250, Stop: 6405, Start Num: 8

Candidate Starts for Marvin\_20:

(Start: 8 @6250 has 17 MA's), (Start: 11 @6289 has 1 MA's),

Gene: MosMoris\_20 Start: 5771, Stop: 5926, Start Num: 8

Candidate Starts for MosMoris\_20:

(Start: 8 @5771 has 17 MA's), (Start: 11 @5810 has 1 MA's), (14, 5849),

Gene: NoShow\_5 Start: 4743, Stop: 4907, Start Num: 5

Candidate Starts for NoShow\_5:

(4, 4698), (Start: 5 @4743 has 4 MA's),

Gene: Nova53\_141 Start: 86962, Stop: 87084, Start Num: 6

Candidate Starts for Nova53\_141:

(3, 86905), (Start: 6 @86962 has 1 MA's), (10, 86989), (12, 87016), (13, 87031),

Gene: Pinnie\_57 Start: 40921, Stop: 41109, Start Num: 5

Candidate Starts for Pinnie\_57:

(4, 40876), (Start: 5 @40921 has 4 MA's),

Gene: Poise\_22 Start: 5882, Stop: 6037, Start Num: 8

Candidate Starts for Poise\_22:

(Start: 8 @5882 has 17 MA's), (Start: 11 @5921 has 1 MA's), (14, 5960),

Gene: Pringar\_21 Start: 5880, Stop: 6035, Start Num: 8

Candidate Starts for Pringar\_21:

(Start: 8 @5880 has 17 MA's), (Start: 11 @5919 has 1 MA's),

Gene: Raela\_22 Start: 6437, Stop: 6592, Start Num: 8

Candidate Starts for Raela\_22:

(Start: 8 @6437 has 17 MA's), (Start: 11 @6476 has 1 MA's), (14, 6515),

Gene: RedRaider77\_22 Start: 6021, Stop: 6176, Start Num: 8

Candidate Starts for RedRaider77\_22:

(Start: 8 @6021 has 17 MA's), (Start: 11 @6060 has 1 MA's), (14, 6099),

Gene: Saguaro\_73 Start: 61316, Stop: 61456, Start Num: 9

Candidate Starts for Saguaro\_73:

(Start: 9 @61316 has 1 MA's), (13, 61373),

Gene: Stargaze\_57 Start: 40411, Stop: 40605, Start Num: 5

Candidate Starts for Stargaze\_57:

(Start: 5 @40411 has 4 MA's),

Gene: Tesla\_21 Start: 5873, Stop: 6028, Start Num: 8

Candidate Starts for Tesla\_21:

(Start: 8 @5873 has 17 MA's), (Start: 11 @5912 has 1 MA's), (14, 5951),

Gene: VasuNzinga\_20 Start: 5457, Stop: 5612, Start Num: 8

Candidate Starts for VasuNzinga\_20:

(Start: 8 @5457 has 17 MA's), (Start: 11 @5496 has 1 MA's),

Gene: YangYin\_57 Start: 40848, Stop: 41042, Start Num: 5

Candidate Starts for YangYin\_57:

(Start: 5 @40848 has 4 MA's),