

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 171651 Report

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

Pham number 171651 has 33 members, 5 are drafts.

Phages represented in each track:

- Track 1 : AlanGrant\_76, Vincenzo\_75
- Track 2: Funsized 23
- Track 3 : GodonK\_14, GodonK\_240
- Track 4 : Phendrix\_230, Phendrix\_14
- Track 5 : FarmerDoug 55
- Track 6 : Agente005\_54
- Track 7: Endor 57, GardenB 56
- Track 8: SoilGremlin\_56, Phriends\_55, OldNelly\_56, Delphidian\_57
- Track 9 : Leafus\_54, Hamlet\_54, Peppino\_54, Schnapsidee\_54, Raccoon\_54, Balsa 53
- Track 10 : JasonD 57
- Track 11: BeeBee8 55
- Track 12 : Pikmin\_54, Casey\_54, Pajaza\_54
- Track 13 : GaeCeo\_56
- Track 14: ChickenKing 54
- Track 15 : Cheeto 1 56
- Track 16 : Megan\_77
- Track 17 : Gravaillia 2
- Track 18 : Daegal\_3
- Track 19 : StAugustine\_104

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

The start number called the most often in the published annotations is 17, it was called in 17 of the 28 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

Agente005\_54, Balsa\_53, BeeBee8\_55, Casey\_54, Cheeto1\_56, ChickenKing\_54, Delphidian\_57, Endor\_57, FarmerDoug\_55, GardenB\_56, Hamlet\_54, JasonD\_57, Leafus\_54, OldNelly\_56, Pajaza\_54, Peppino\_54, Phriends\_55, Pikmin\_54, Raccoon\_54, Schnapsidee\_54, SoilGremlin\_56,

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

GaeCeo 56.

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

• AlanGrant\_76, Daegal\_3, Funsized\_23, GodonK\_14, GodonK\_240, Gravaillia\_2, Megan\_77, Phendrix\_14, Phendrix\_230, StAugustine\_104, Vincenzo\_75,

## **Summary by start number:**

#### Start 9:

- Found in 1 of 33 (3.0%) of genes in pham
- Manual Annotations of this start: 1 of 28
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Megan\_77 (EC),

#### Start 12:

- Found in 3 of 33 (9.1%) of genes in pham
- Manual Annotations of this start: 1 of 28
- Called 33.3% of time when present
- Phage (with cluster) where this start called: GaeCeo\_56 (EA9),

#### Start 14:

- Found in 1 of 33 ( 3.0% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: StAugustine\_104 (singleton),

#### Start 16:

- Found in 7 of 33 (21.2%) of genes in pham
- Manual Annotations of this start: 7 of 28
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AlanGrant\_76 (B4), Funsized\_23 (B9), GodonK\_14 (DK), GodonK\_240 (DK), Phendrix\_14 (DK), Phendrix\_230 (DK), Vincenzo\_75 (B4),

### Start 17:

- Found in 22 of 33 (66.7%) of genes in pham
- Manual Annotation's of this start: 17 of 28
- Called 95.5% of time when present
- Phage (with cluster) where this start called: Agente005\_54 (EA1), Balsa\_53 (EA1), BeeBee8\_55 (EA1), Casey\_54 (EA3), Cheeto1\_56 (EA9), ChickenKing\_54 (EA9), Delphidian\_57 (EA1), Endor\_57 (EA1), FarmerDoug\_55 (EA1), GardenB\_56 (EA1), Hamlet\_54 (EA1), JasonD\_57 (EA1), Leafus\_54 (EA1), OldNelly\_56 (EA1), Pajaza\_54 (EA3), Peppino\_54 (EA1), Phriends\_55 (EA1), Pikmin\_54 (EA3), Raccoon\_54 (EA1), Schnapsidee\_54 (EA1), SoilGremlin\_56 (EA1),

#### Start 19:

- Found in 2 of 33 (6.1%) of genes in pham
- Manual Annotations of this start: 2 of 28
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Daegal 3 (Q), Gravaillia 2 (Q),

### Summary by clusters:

There are 9 clusters represented in this pham: B4, singleton, DK, EC, EA9, Q, EA1, EA3, B9,

Info for manual annotations of cluster B4:

•Start number 16 was manually annotated 2 times for cluster B4.

Info for manual annotations of cluster B9:

•Start number 16 was manually annotated 1 time for cluster B9.

Info for manual annotations of cluster DK:

•Start number 16 was manually annotated 4 times for cluster DK.

Info for manual annotations of cluster EA1:

•Start number 17 was manually annotated 12 times for cluster EA1.

Info for manual annotations of cluster EA3:

•Start number 17 was manually annotated 3 times for cluster EA3.

Info for manual annotations of cluster EA9:

- •Start number 12 was manually annotated 1 time for cluster EA9.
- •Start number 17 was manually annotated 2 times for cluster EA9.

Info for manual annotations of cluster EC:

•Start number 9 was manually annotated 1 time for cluster EC.

Info for manual annotations of cluster Q:

•Start number 19 was manually annotated 2 times for cluster Q.

#### Gene Information:

Gene: Agente005 54 Start: 37813, Stop: 37499, Start Num: 17

Candidate Starts for Agente005\_54:

(Start: 17 @37813 has 17 MA's), (27, 37678), (29, 37672), (32, 37627),

Gene: AlanGrant\_76 Start: 63236, Stop: 62979, Start Num: 16

Candidate Starts for AlanGrant\_76:

(Start: 16 @63236 has 7 MA's), (20, 63212), (23, 63161), (24, 63134), (27, 63095),

Gene: Balsa 53 Start: 37838, Stop: 37536, Start Num: 17

Candidate Starts for Balsa 53:

(Start: 17 @37838 has 17 MA's), (33, 37649), (39, 37574),

Gene: BeeBee8\_55 Start: 38012, Stop: 37710, Start Num: 17

Candidate Starts for BeeBee8\_55:

(Start: 17 @38012 has 17 MA's), (27, 37877), (33, 37823), (39, 37748),

Gene: Casey 54 Start: 36538, Stop: 36284, Start Num: 17

Candidate Starts for Casev 54:

(Start: 17 @36538 has 17 MA's), (35, 36331), (38, 36319),

Gene: Cheeto1\_56 Start: 38137, Stop: 37841, Start Num: 17

Candidate Starts for Cheeto1 56:

(Start: 12 @38197 has 1 MA's), (13, 38182), (Start: 17 @38137 has 17 MA's), (21, 38080),

Gene: ChickenKing\_54 Start: 38291, Stop: 37995, Start Num: 17

Candidate Starts for ChickenKing\_54:

(1, 38693), (Start: 12 @38351 has 1 MA's), (13, 38336), (Start: 17 @38291 has 17 MA's), (21, 38234), (26, 38156),

Gene: Daegal\_3 Start: 1154, Stop: 930, Start Num: 19

Candidate Starts for Daegal\_3:

(Start: 19 @1154 has 2 MA's), (22, 1094), (28, 1025), (30, 983),

Gene: Delphidian\_57 Start: 37991, Stop: 37731, Start Num: 17

Candidate Starts for Delphidian\_57:

(Start: 17 @37991 has 17 MA's), (27, 37853), (28, 37850),

Gene: Endor 57 Start: 38543, Stop: 38283, Start Num: 17

Candidate Starts for Endor\_57:

(Start: 17 @38543 has 17 MA's), (27, 38405), (28, 38402), (36, 38327), (37, 38324),

Gene: FarmerDoug\_55 Start: 38067, Stop: 37807, Start Num: 17

Candidate Starts for FarmerDoug\_55:

(Start: 17 @38067 has 17 MA's), (27, 37929), (28, 37926), (36, 37851),

Gene: Funsized\_23 Start: 19544, Stop: 19296, Start Num: 16

Candidate Starts for Funsized\_23:

(4, 19742), (6, 19694), (Start: 16 @19544 has 7 MA's), (20, 19517), (23, 19466), (24, 19439),

Gene: GaeCeo\_56 Start: 38584, Stop: 38228, Start Num: 12

Candidate Starts for GaeCeo\_56:

(1, 38926), (Start: 12 @38584 has 1 MA's), (13, 38569), (Start: 17 @38524 has 17 MA's), (21, 38467), (26, 38389),

Gene: GardenB 56 Start: 38320, Stop: 38060, Start Num: 17

Candidate Starts for GardenB\_56:

(Start: 17 @38320 has 17 MA's), (27, 38182), (28, 38179), (36, 38104), (37, 38101),

Gene: GodonK\_14 Start: 5550, Stop: 5308, Start Num: 16

Candidate Starts for GodonK\_14:

(Start: 16 @5550 has 7 MA's), (20, 5526), (23, 5475),

Gene: GodonK\_240 Start: 120532, Stop: 120290, Start Num: 16

Candidate Starts for GodonK 240:

(Start: 16 @120532 has 7 MA's), (20, 120508), (23, 120457),

Gene: Gravaillia\_2 Start: 866, Stop: 639, Start Num: 19

Candidate Starts for Gravaillia\_2: (Start: 19 @866 has 2 MA's), (28, 734),

Gene: Hamlet 54 Start: 37931, Stop: 37629, Start Num: 17

Candidate Starts for Hamlet\_54:

(Start: 17 @37931 has 17 MA's), (33, 37742), (39, 37667),

Gene: JasonD\_57 Start: 37644, Stop: 37333, Start Num: 17

Candidate Starts for JasonD\_57:

(Start: 17 @37644 has 17 MA's), (28, 37506), (39, 37371),

Gene: Leafus\_54 Start: 37994, Stop: 37692, Start Num: 17

Candidate Starts for Leafus 54:

(Start: 17 @37994 has 17 MA's), (33, 37805), (39, 37730),

Gene: Megan\_77 Start: 50316, Stop: 50684, Start Num: 9

Candidate Starts for Megan\_77:

(Start: 9 @ 50316 has 1 MA's), (10, 50322), (15, 50379), (20, 50412), (23, 50463), (31, 50574),

Gene: OldNelly\_56 Start: 37995, Stop: 37735, Start Num: 17

Candidate Starts for OldNelly\_56:

(Start: 17 @37995 has 17 MA's), (27, 37857), (28, 37854),

Gene: Pajaza 54 Start: 36538, Stop: 36284, Start Num: 17

Candidate Starts for Pajaza\_54:

(Start: 17 @36538 has 17 MA's), (35, 36331), (38, 36319),

Gene: Peppino\_54 Start: 37824, Stop: 37522, Start Num: 17

Candidate Starts for Peppino\_54:

(Start: 17 @37824 has 17 MA's), (33, 37635), (39, 37560),

Gene: Phendrix\_230 Start: 119315, Stop: 119073, Start Num: 16

Candidate Starts for Phendrix\_230:

(7, 119390), (8, 119384), (11, 119366), (Start: 16 @119315 has 7 MA's), (23, 119240),

Gene: Phendrix\_14 Start: 5717, Stop: 5475, Start Num: 16

Candidate Starts for Phendrix\_14:

(7, 5792), (8, 5786), (11, 5768), (Start: 16 @5717 has 7 MA's), (23, 5642),

Gene: Phriends\_55 Start: 37999, Stop: 37739, Start Num: 17

Candidate Starts for Phriends 55:

(Start: 17 @37999 has 17 MA's), (27, 37861), (28, 37858),

Gene: Pikmin\_54 Start: 36538, Stop: 36284, Start Num: 17

Candidate Starts for Pikmin\_54:

(Start: 17 @36538 has 17 MA's), (35, 36331), (38, 36319),

Gene: Raccoon\_54 Start: 37795, Stop: 37493, Start Num: 17

Candidate Starts for Raccoon\_54:

(Start: 17 @37795 has 17 MA's), (33, 37606), (39, 37531),

Gene: Schnapsidee 54 Start: 37869, Stop: 37567, Start Num: 17

Candidate Starts for Schnapsidee\_54:

(Start: 17 @37869 has 17 MA's), (33, 37680), (39, 37605),

Gene: SoilGremlin\_56 Start: 37992, Stop: 37732, Start Num: 17

Candidate Starts for SoilGremlin 56:

(Start: 17 @37992 has 17 MA's), (27, 37854), (28, 37851),

Gene: StAugustine\_104 Start: 72844, Stop: 72515, Start Num: 14

Candidate Starts for StAugustine\_104: (2, 73084), (3, 73060), (5, 72970), (14, 72844), (18, 72802), (20, 72787), (25, 72700), (27, 72673), (28, 72670), (31, 72625), (34, 72610),

Gene: Vincenzo\_75 Start: 63266, Stop: 63009, Start Num: 16

Candidate Starts for Vincenzo\_75:

(Start: 16 @63266 has 7 MA's), (20, 63242), (23, 63191), (24, 63164), (27, 63125),