



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 296531 Report

This analysis was run 04/25/26 on database version 644.

Pham number 296531 has 72 members, 11 are drafts.

Phages represented in each track:

- Track 1 : Peeb\_8, ECartman\_8, Hope\_8, Kasen3\_8, Liefie\_8, Sweets\_8, ShaboiShabazz\_8, BruceB\_8, Camri\_8, Cedasite\_8, Remy19\_8, Plagueis\_8, GoldenAsh\_8, Phreak\_8, Maliketh\_8, Neoh\_8, Gomashi\_8, OctaviousRex\_8, Jeilious\_8, Jolene\_8, Wendigo\_8, Hotshotbaby7\_8, Avrafan\_8, Jane\_8, Angel\_8, Schiebel\_8, Phish\_8, Rattrick\_8, MZKinsey\_8, Periodt\_8, Phloodle\_8, CassieYates\_8, DMoney\_8, AzulaCat\_8, Sizemore\_8, Barkley26\_8, Frosty24\_8, Cherrybomb426\_8, Crespo\_8, Darionha\_8, Olga\_8, Aroostook\_8, TomBrady\_8, Annihilator\_8, JorRay\_8, ZoMa\_8, Zombie\_8, Marmie\_8, CLED96\_8, Halo\_8, Gideon\_8, Kareem\_8, DingDing\_8, Richarlison\_8, BPs\_8, BQuat\_8, Ruriko\_8, Mowgli\_8, Chance64\_8, PinkYoshi\_8, Coleslaw\_8, TinaBug\_8, Jonghyun\_8, LouisV14\_8, Renaissance\_8
- Track 2 : Rabbs\_8, Sneeze\_8
- Track 3 : Taheera\_8, Terror\_8
- Track 4 : DNAlll\_008
- Track 5 : AizenPogi\_8
- Track 6 : Grizzly\_8

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

The start number called the most often in the published annotations is 1, it was called in 61 of the 61 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Angel\_8, Annihilator\_8, Aroostook\_8, Avrafan\_8, AzulaCat\_8, BPs\_8, BQuat\_8, Barkley26\_8, BruceB\_8, CLED96\_8, Camri\_8, CassieYates\_8, Cedasite\_8, Chance64\_8, Cherrybomb426\_8, Coleslaw\_8, Crespo\_8, DMoney\_8, DNAlll\_008, Darionha\_8, DingDing\_8, ECartman\_8, Frosty24\_8, Gideon\_8, GoldenAsh\_8, Gomashi\_8, Grizzly\_8, Halo\_8, Hope\_8, Hotshotbaby7\_8, Jane\_8, Jeilious\_8, Jolene\_8, Jonghyun\_8, JorRay\_8, Kareem\_8, Kasen3\_8, Liefie\_8, LouisV14\_8, MZKinsey\_8, Maliketh\_8, Marmie\_8, Mowgli\_8, Neoh\_8, OctaviousRex\_8, Olga\_8, Peeb\_8, Periodt\_8, Phish\_8, Phloodle\_8, Phreak\_8, PinkYoshi\_8, Plagueis\_8, Rabbs\_8, Rattrick\_8, Remy19\_8, Renaissance\_8, Richarlison\_8, Ruriko\_8, Schiebel\_8, ShaboiShabazz\_8, Sizemore\_8, Sneeze\_8, Sweets\_8, Taheera\_8, Terror\_8, TinaBug\_8, TomBrady\_8, Wendigo\_8, ZoMa\_8, Zombie\_8,

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

- AizenPogi\_8,

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

- 

### Summary by start number:

Start 1:

- Found in 72 of 72 ( 100.0% ) of genes in pham
- Manual Annotations of this start: 61 of 61
- Called 98.6% of time when present
- Phage (with cluster) where this start called: Angel\_8 (G1), Annihilator\_8 (G1), Aroostook\_8 (G1), Avrafan\_8 (G1), AzulaCat\_8 (G1), BPs\_8 (G1), BQuat\_8 (G1), Barkley26\_8 (G1), BruceB\_8 (G1), CLED96\_8 (G1), Camri\_8 (G1), CassieYates\_8 (G1), Cedasite\_8 (G1), Chance64\_8 (G1), Cherrybomb426\_8 (G1), Coleslaw\_8 (G1), Crespo\_8 (G1), DMoney\_8 (G1), DNAIII\_008 (G1), Darionha\_8 (G1), DingDing\_8 (G1), ECartman\_8 (G1), Frosty24\_8 (G1), Gideon\_8 (G1), GoldenAsh\_8 (G1), Gomashi\_8 (G1), Grizzly\_8 (G1), Halo\_8 (G1), Hope\_8 (G1), Hotshotbaby7\_8 (G1), Jane\_8 (G1), Jeilious\_8 (G), Jolene\_8 (G1), Jonghyun\_8 (G1), JorRay\_8 (G1), Kareem\_8 (G1), Kasen3\_8 (G1), Liefie\_8 (G1), LouisV14\_8 (G1), MZKinsey\_8 (G1), Maliketh\_8 (G1), Marmie\_8 (G1), Mowgli\_8 (G1), Neoh\_8 (G), OctaviousRex\_8 (G1), Olga\_8 (G1), Peeb\_8 (G1), Periodt\_8 (G1), Phish\_8 (G1), Phloodle\_8 (G1), Phreak\_8 (G1), PinkYoshi\_8 (G1), Plagueis\_8 (G1), Rabbs\_8 (G1), Rattrick\_8 (G1), Remy19\_8 (G1), Renaissance\_8 (G1), Richarlison\_8 (G1), Ruriko\_8 (G1), Schiebel\_8 (G1), ShaboiShabazz\_8 (G1), Sizemore\_8 (G1), Sneeze\_8 (G1), Sweets\_8 (G1), Taheera\_8 (G1), Terror\_8 (G1), TinaBug\_8 (G1), TomBrady\_8 (G1), Wendigo\_8 (G1), ZoMa\_8 (G1), Zombie\_8 (G1),

Start 2:

- Found in 71 of 72 ( 98.6% ) of genes in pham
- No Manual Annotations of this start.
- Called 1.4% of time when present
- Phage (with cluster) where this start called: AizenPogi\_8 (G1),

### Summary by clusters:

There are 2 clusters represented in this pham: G, G1,

Info for manual annotations of cluster G1:

- Start number 1 was manually annotated 61 times for cluster G1.

### Gene Information:

Gene: AizenPogi\_8 Start: 8084, Stop: 8302, Start Num: 2

Candidate Starts for AizenPogi\_8:

(Start: 1 @8075 has 61 MA's), (2, 8084), (4, 8102), (5, 8111), (6, 8159),

Gene: Angel\_8 Start: 8075, Stop: 8302, Start Num: 1

Candidate Starts for Angel\_8:  
(Start: 1 @8075 has 61 MA's), (2, 8084), (4, 8102), (5, 8111), (6, 8159),

Gene: Annihilator\_8 Start: 8075, Stop: 8302, Start Num: 1  
Candidate Starts for Annihilator\_8:  
(Start: 1 @8075 has 61 MA's), (2, 8084), (4, 8102), (5, 8111), (6, 8159),

Gene: Aroostook\_8 Start: 8075, Stop: 8302, Start Num: 1  
Candidate Starts for Aroostook\_8:  
(Start: 1 @8075 has 61 MA's), (2, 8084), (4, 8102), (5, 8111), (6, 8159),

Gene: Avrafan\_8 Start: 8075, Stop: 8302, Start Num: 1  
Candidate Starts for Avrafan\_8:  
(Start: 1 @8075 has 61 MA's), (2, 8084), (4, 8102), (5, 8111), (6, 8159),

Gene: AzulaCat\_8 Start: 8075, Stop: 8302, Start Num: 1  
Candidate Starts for AzulaCat\_8:  
(Start: 1 @8075 has 61 MA's), (2, 8084), (4, 8102), (5, 8111), (6, 8159),

Gene: BPs\_8 Start: 8075, Stop: 8302, Start Num: 1  
Candidate Starts for BPs\_8:  
(Start: 1 @8075 has 61 MA's), (2, 8084), (4, 8102), (5, 8111), (6, 8159),

Gene: BQuat\_8 Start: 8075, Stop: 8302, Start Num: 1  
Candidate Starts for BQuat\_8:  
(Start: 1 @8075 has 61 MA's), (2, 8084), (4, 8102), (5, 8111), (6, 8159),

Gene: Barkley26\_8 Start: 8075, Stop: 8302, Start Num: 1  
Candidate Starts for Barkley26\_8:  
(Start: 1 @8075 has 61 MA's), (2, 8084), (4, 8102), (5, 8111), (6, 8159),

Gene: BruceB\_8 Start: 8075, Stop: 8302, Start Num: 1  
Candidate Starts for BruceB\_8:  
(Start: 1 @8075 has 61 MA's), (2, 8084), (4, 8102), (5, 8111), (6, 8159),

Gene: CLED96\_8 Start: 8075, Stop: 8302, Start Num: 1  
Candidate Starts for CLED96\_8:  
(Start: 1 @8075 has 61 MA's), (2, 8084), (4, 8102), (5, 8111), (6, 8159),

Gene: Camri\_8 Start: 8075, Stop: 8302, Start Num: 1  
Candidate Starts for Camri\_8:  
(Start: 1 @8075 has 61 MA's), (2, 8084), (4, 8102), (5, 8111), (6, 8159),

Gene: CassieYates\_8 Start: 8075, Stop: 8302, Start Num: 1  
Candidate Starts for CassieYates\_8:  
(Start: 1 @8075 has 61 MA's), (2, 8084), (4, 8102), (5, 8111), (6, 8159),

Gene: Cedasite\_8 Start: 8075, Stop: 8302, Start Num: 1  
Candidate Starts for Cedasite\_8:  
(Start: 1 @8075 has 61 MA's), (2, 8084), (4, 8102), (5, 8111), (6, 8159),

Gene: Chance64\_8 Start: 8075, Stop: 8302, Start Num: 1  
Candidate Starts for Chance64\_8:

(Start: 1 @8075 has 61 MA's), (2, 8084), (4, 8102), (5, 8111), (6, 8159),

Gene: Cherrybomb426\_8 Start: 8075, Stop: 8302, Start Num: 1

Candidate Starts for Cherrybomb426\_8:

(Start: 1 @8075 has 61 MA's), (2, 8084), (4, 8102), (5, 8111), (6, 8159),

Gene: Coleslaw\_8 Start: 8075, Stop: 8302, Start Num: 1

Candidate Starts for Coleslaw\_8:

(Start: 1 @8075 has 61 MA's), (2, 8084), (4, 8102), (5, 8111), (6, 8159),

Gene: Crespo\_8 Start: 8076, Stop: 8303, Start Num: 1

Candidate Starts for Crespo\_8:

(Start: 1 @8076 has 61 MA's), (2, 8085), (4, 8103), (5, 8112), (6, 8160),

Gene: DMoney\_8 Start: 8075, Stop: 8302, Start Num: 1

Candidate Starts for DMoney\_8:

(Start: 1 @8075 has 61 MA's), (2, 8084), (4, 8102), (5, 8111), (6, 8159),

Gene: DNAIII\_008 Start: 8084, Stop: 8311, Start Num: 1

Candidate Starts for DNAIII\_008:

(Start: 1 @8084 has 61 MA's), (2, 8093), (4, 8111), (6, 8168),

Gene: Darionha\_8 Start: 8075, Stop: 8302, Start Num: 1

Candidate Starts for Darionha\_8:

(Start: 1 @8075 has 61 MA's), (2, 8084), (4, 8102), (5, 8111), (6, 8159),

Gene: DingDing\_8 Start: 8075, Stop: 8302, Start Num: 1

Candidate Starts for DingDing\_8:

(Start: 1 @8075 has 61 MA's), (2, 8084), (4, 8102), (5, 8111), (6, 8159),

Gene: ECartman\_8 Start: 8075, Stop: 8302, Start Num: 1

Candidate Starts for ECartman\_8:

(Start: 1 @8075 has 61 MA's), (2, 8084), (4, 8102), (5, 8111), (6, 8159),

Gene: Frosty24\_8 Start: 8075, Stop: 8302, Start Num: 1

Candidate Starts for Frosty24\_8:

(Start: 1 @8075 has 61 MA's), (2, 8084), (4, 8102), (5, 8111), (6, 8159),

Gene: Gideon\_8 Start: 8075, Stop: 8302, Start Num: 1

Candidate Starts for Gideon\_8:

(Start: 1 @8075 has 61 MA's), (2, 8084), (4, 8102), (5, 8111), (6, 8159),

Gene: GoldenAsh\_8 Start: 8075, Stop: 8302, Start Num: 1

Candidate Starts for GoldenAsh\_8:

(Start: 1 @8075 has 61 MA's), (2, 8084), (4, 8102), (5, 8111), (6, 8159),

Gene: Gomashi\_8 Start: 8076, Stop: 8303, Start Num: 1

Candidate Starts for Gomashi\_8:

(Start: 1 @8076 has 61 MA's), (2, 8085), (4, 8103), (5, 8112), (6, 8160),

Gene: Grizzly\_8 Start: 8075, Stop: 8302, Start Num: 1

Candidate Starts for Grizzly\_8:

(Start: 1 @8075 has 61 MA's), (5, 8111), (6, 8159),

Gene: Halo\_8 Start: 8076, Stop: 8297, Start Num: 1  
Candidate Starts for Halo\_8:  
(Start: 1 @8076 has 61 MA's), (2, 8085), (4, 8103), (5, 8112), (6, 8160),

Gene: Hope\_8 Start: 8075, Stop: 8302, Start Num: 1  
Candidate Starts for Hope\_8:  
(Start: 1 @8075 has 61 MA's), (2, 8084), (4, 8102), (5, 8111), (6, 8159),

Gene: Hotshotbaby7\_8 Start: 8075, Stop: 8302, Start Num: 1  
Candidate Starts for Hotshotbaby7\_8:  
(Start: 1 @8075 has 61 MA's), (2, 8084), (4, 8102), (5, 8111), (6, 8159),

Gene: Jane\_8 Start: 8075, Stop: 8302, Start Num: 1  
Candidate Starts for Jane\_8:  
(Start: 1 @8075 has 61 MA's), (2, 8084), (4, 8102), (5, 8111), (6, 8159),

Gene: Jeilious\_8 Start: 8074, Stop: 8301, Start Num: 1  
Candidate Starts for Jeilious\_8:  
(Start: 1 @8074 has 61 MA's), (2, 8083), (4, 8101), (5, 8110), (6, 8158),

Gene: Jolene\_8 Start: 8075, Stop: 8302, Start Num: 1  
Candidate Starts for Jolene\_8:  
(Start: 1 @8075 has 61 MA's), (2, 8084), (4, 8102), (5, 8111), (6, 8159),

Gene: Jonghyun\_8 Start: 8075, Stop: 8302, Start Num: 1  
Candidate Starts for Jonghyun\_8:  
(Start: 1 @8075 has 61 MA's), (2, 8084), (4, 8102), (5, 8111), (6, 8159),

Gene: JorRay\_8 Start: 8075, Stop: 8302, Start Num: 1  
Candidate Starts for JorRay\_8:  
(Start: 1 @8075 has 61 MA's), (2, 8084), (4, 8102), (5, 8111), (6, 8159),

Gene: Kareem\_8 Start: 8075, Stop: 8302, Start Num: 1  
Candidate Starts for Kareem\_8:  
(Start: 1 @8075 has 61 MA's), (2, 8084), (4, 8102), (5, 8111), (6, 8159),

Gene: Kasen3\_8 Start: 8076, Stop: 8303, Start Num: 1  
Candidate Starts for Kasen3\_8:  
(Start: 1 @8076 has 61 MA's), (2, 8085), (4, 8103), (5, 8112), (6, 8160),

Gene: Liefie\_8 Start: 8074, Stop: 8301, Start Num: 1  
Candidate Starts for Liefie\_8:  
(Start: 1 @8074 has 61 MA's), (2, 8083), (4, 8101), (5, 8110), (6, 8158),

Gene: LouisV14\_8 Start: 8075, Stop: 8302, Start Num: 1  
Candidate Starts for LouisV14\_8:  
(Start: 1 @8075 has 61 MA's), (2, 8084), (4, 8102), (5, 8111), (6, 8159),

Gene: MZKinsey\_8 Start: 8075, Stop: 8302, Start Num: 1  
Candidate Starts for MZKinsey\_8:  
(Start: 1 @8075 has 61 MA's), (2, 8084), (4, 8102), (5, 8111), (6, 8159),

Gene: Maliketh\_8 Start: 8075, Stop: 8302, Start Num: 1  
Candidate Starts for Maliketh\_8:  
(Start: 1 @8075 has 61 MA's), (2, 8084), (4, 8102), (5, 8111), (6, 8159),

Gene: Marmie\_8 Start: 8075, Stop: 8302, Start Num: 1  
Candidate Starts for Marmie\_8:  
(Start: 1 @8075 has 61 MA's), (2, 8084), (4, 8102), (5, 8111), (6, 8159),

Gene: Mowgli\_8 Start: 8075, Stop: 8302, Start Num: 1  
Candidate Starts for Mowgli\_8:  
(Start: 1 @8075 has 61 MA's), (2, 8084), (4, 8102), (5, 8111), (6, 8159),

Gene: Neoh\_8 Start: 8076, Stop: 8303, Start Num: 1  
Candidate Starts for Neoh\_8:  
(Start: 1 @8076 has 61 MA's), (2, 8085), (4, 8103), (5, 8112), (6, 8160),

Gene: OctaviousRex\_8 Start: 8075, Stop: 8302, Start Num: 1  
Candidate Starts for OctaviousRex\_8:  
(Start: 1 @8075 has 61 MA's), (2, 8084), (4, 8102), (5, 8111), (6, 8159),

Gene: Olga\_8 Start: 8075, Stop: 8302, Start Num: 1  
Candidate Starts for Olga\_8:  
(Start: 1 @8075 has 61 MA's), (2, 8084), (4, 8102), (5, 8111), (6, 8159),

Gene: Peeb\_8 Start: 8075, Stop: 8302, Start Num: 1  
Candidate Starts for Peeb\_8:  
(Start: 1 @8075 has 61 MA's), (2, 8084), (4, 8102), (5, 8111), (6, 8159),

Gene: Periodt\_8 Start: 8075, Stop: 8302, Start Num: 1  
Candidate Starts for Periodt\_8:  
(Start: 1 @8075 has 61 MA's), (2, 8084), (4, 8102), (5, 8111), (6, 8159),

Gene: Phish\_8 Start: 8075, Stop: 8302, Start Num: 1  
Candidate Starts for Phish\_8:  
(Start: 1 @8075 has 61 MA's), (2, 8084), (4, 8102), (5, 8111), (6, 8159),

Gene: Phloodle\_8 Start: 8075, Stop: 8302, Start Num: 1  
Candidate Starts for Phloodle\_8:  
(Start: 1 @8075 has 61 MA's), (2, 8084), (4, 8102), (5, 8111), (6, 8159),

Gene: Phreak\_8 Start: 8075, Stop: 8302, Start Num: 1  
Candidate Starts for Phreak\_8:  
(Start: 1 @8075 has 61 MA's), (2, 8084), (4, 8102), (5, 8111), (6, 8159),

Gene: PinkYoshi\_8 Start: 8075, Stop: 8302, Start Num: 1  
Candidate Starts for PinkYoshi\_8:  
(Start: 1 @8075 has 61 MA's), (2, 8084), (4, 8102), (5, 8111), (6, 8159),

Gene: Plagueis\_8 Start: 8075, Stop: 8302, Start Num: 1  
Candidate Starts for Plagueis\_8:  
(Start: 1 @8075 has 61 MA's), (2, 8084), (4, 8102), (5, 8111), (6, 8159),

Gene: Rabbs\_8 Start: 8071, Stop: 8286, Start Num: 1

Candidate Starts for Rabbs\_8:

(Start: 1 @8071 has 61 MA's), (2, 8080), (5, 8107),

Gene: Rattrick\_8 Start: 8075, Stop: 8302, Start Num: 1

Candidate Starts for Rattrick\_8:

(Start: 1 @8075 has 61 MA's), (2, 8084), (4, 8102), (5, 8111), (6, 8159),

Gene: Remy19\_8 Start: 8075, Stop: 8302, Start Num: 1

Candidate Starts for Remy19\_8:

(Start: 1 @8075 has 61 MA's), (2, 8084), (4, 8102), (5, 8111), (6, 8159),

Gene: Renaissance\_8 Start: 8075, Stop: 8302, Start Num: 1

Candidate Starts for Renaissance\_8:

(Start: 1 @8075 has 61 MA's), (2, 8084), (4, 8102), (5, 8111), (6, 8159),

Gene: Richarlison\_8 Start: 8075, Stop: 8302, Start Num: 1

Candidate Starts for Richarlison\_8:

(Start: 1 @8075 has 61 MA's), (2, 8084), (4, 8102), (5, 8111), (6, 8159),

Gene: Ruriko\_8 Start: 8075, Stop: 8302, Start Num: 1

Candidate Starts for Ruriko\_8:

(Start: 1 @8075 has 61 MA's), (2, 8084), (4, 8102), (5, 8111), (6, 8159),

Gene: Schiebel\_8 Start: 8075, Stop: 8302, Start Num: 1

Candidate Starts for Schiebel\_8:

(Start: 1 @8075 has 61 MA's), (2, 8084), (4, 8102), (5, 8111), (6, 8159),

Gene: ShaboiShabazz\_8 Start: 8075, Stop: 8302, Start Num: 1

Candidate Starts for ShaboiShabazz\_8:

(Start: 1 @8075 has 61 MA's), (2, 8084), (4, 8102), (5, 8111), (6, 8159),

Gene: Sizemore\_8 Start: 8076, Stop: 8303, Start Num: 1

Candidate Starts for Sizemore\_8:

(Start: 1 @8076 has 61 MA's), (2, 8085), (4, 8103), (5, 8112), (6, 8160),

Gene: Sneeze\_8 Start: 8070, Stop: 8285, Start Num: 1

Candidate Starts for Sneeze\_8:

(Start: 1 @8070 has 61 MA's), (2, 8079), (5, 8106),

Gene: Sweets\_8 Start: 8076, Stop: 8297, Start Num: 1

Candidate Starts for Sweets\_8:

(Start: 1 @8076 has 61 MA's), (2, 8085), (4, 8103), (5, 8112), (6, 8160),

Gene: Taheera\_8 Start: 8080, Stop: 8295, Start Num: 1

Candidate Starts for Taheera\_8:

(Start: 1 @8080 has 61 MA's), (2, 8089), (3, 8104), (5, 8116),

Gene: Terror\_8 Start: 8080, Stop: 8295, Start Num: 1

Candidate Starts for Terror\_8:

(Start: 1 @8080 has 61 MA's), (2, 8089), (3, 8104), (5, 8116),

Gene: TinaBug\_8 Start: 8076, Stop: 8297, Start Num: 1

Candidate Starts for TinaBug\_8:

(Start: 1 @8076 has 61 MA's), (2, 8085), (4, 8103), (5, 8112), (6, 8160),

Gene: TomBrady\_8 Start: 8076, Stop: 8303, Start Num: 1

Candidate Starts for TomBrady\_8:

(Start: 1 @8076 has 61 MA's), (2, 8085), (4, 8103), (5, 8112), (6, 8160),

Gene: Wendigo\_8 Start: 8075, Stop: 8302, Start Num: 1

Candidate Starts for Wendigo\_8:

(Start: 1 @8075 has 61 MA's), (2, 8084), (4, 8102), (5, 8111), (6, 8159),

Gene: ZoMa\_8 Start: 8075, Stop: 8302, Start Num: 1

Candidate Starts for ZoMa\_8:

(Start: 1 @8075 has 61 MA's), (2, 8084), (4, 8102), (5, 8111), (6, 8159),

Gene: Zombie\_8 Start: 8075, Stop: 8302, Start Num: 1

Candidate Starts for Zombie\_8:

(Start: 1 @8075 has 61 MA's), (2, 8084), (4, 8102), (5, 8111), (6, 8159),