



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 289471 Report

This analysis was run 03/28/26 on database version 641.

Pham number 289471 has 53 members, 6 are drafts.

Phages represented in each track:

- Track 1 : Necropolis\_33, Venti\_33, Fishburne\_33, Polkaroo\_33, KilKor\_33, Brusacoram\_33, Gavriela\_33, Willsammy\_32, Phalm\_33, Mangethe\_33, BronnyJr\_33, Techage\_33, Majeke\_33, Ksquared\_33, Bunnies\_33, Camster\_33, Malithi\_33, Sonah\_33, Thespis\_33, StressBall\_33, CactusJack\_33, Atcoo\_33, Zilizebeth\_33, Jung\_32, Kari\_33, Vidya\_33, Glaske\_33, Phegasus\_33, FirstPlacePfu\_33, Bartholomew\_32, Etoile\_33, Megiddo\_33, Juniormint\_33
- Track 2 : Jebeks\_34
- Track 3 : Bogie\_35, Langerak\_33, Pygmy\_35, GaloreK\_33, Shipwreck\_35, Arib1\_33
- Track 4 : Bhagsy\_33, PeanutPie\_33
- Track 5 : Dynamo\_33, Phineas\_33, Chubbello\_33
- Track 6 : GreaseLightnin\_33, StevieRay\_33
- Track 7 : Donovan\_33, HUHilltop\_33
- Track 8 : BigNuz\_36, Nazo\_37
- Track 9 : Phayonce\_35
- Track 10 : Purky\_40

### ***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 47 of the 47 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Arib1\_33, Atcoo\_33, Bartholomew\_32, Bhagsy\_33, BigNuz\_36, Bogie\_35, BronnyJr\_33, Brusacoram\_33, Bunnies\_33, CactusJack\_33, Camster\_33, Chubbello\_33, Donovan\_33, Dynamo\_33, Etoile\_33, FirstPlacePfu\_33, Fishburne\_33, GaloreK\_33, Gavriela\_33, Glaske\_33, GreaseLightnin\_33, HUHilltop\_33, Jebeks\_34, Jung\_32, Juniormint\_33, Kari\_33, KilKor\_33, Ksquared\_33, Langerak\_33, Majeke\_33, Malithi\_33, Mangethe\_33, Megiddo\_33, Nazo\_37, Necropolis\_33, PeanutPie\_33, Phalm\_33, Phayonce\_35, Phegasus\_33, Phineas\_33, Polkaroo\_33, Purky\_40, Pygmy\_35, Shipwreck\_35, Sonah\_33, StevieRay\_33, StressBall\_33, Techage\_33, Thespis\_33, Venti\_33, Vidya\_33, Willsammy\_32, Zilizebeth\_33,

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

- 

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

- 

### Summary by start number:

Start 1:

- Found in 53 of 53 ( 100.0% ) of genes in pham
- Manual Annotations of this start: 47 of 47
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Arib1\_33 (P1), Atcoo\_33 (P1), Bartholomew\_32 (P1), Bhagsy\_33 (P1), BigNuz\_36 (P4), Bogie\_35 (P1), BronnyJr\_33 (P1), Brusacoram\_33 (P1), Bunnies\_33 (P1), CactusJack\_33 (P1), Camster\_33 (P1), Chubbello\_33 (P1), Donovan\_33 (P1), Dynamo\_33 (P1), Etoile\_33 (P1), FirstPlacePfu\_33 (P1), Fishburne\_33 (P1), GaloreK\_33 (P1), Gavriela\_33 (P1), Glaske\_33 (P1), GreaseLightnin\_33 (P1), HUHilltop\_33 (P1), Jebeks\_34 (P1), Jung\_32 (P1), Juniormint\_33 (P1), Kari\_33 (P1), KilKor\_33 (P1), Ksquared\_33 (P1), Langerak\_33 (P1), Majeke\_33 (P1), Malithi\_33 (P1), Mangethe\_33 (P1), Megiddo\_33 (P1), Nazo\_37 (P4), Necropolis\_33 (P1), PeanutPie\_33 (P1), Phalm\_33 (P1), Phayonce\_35 (P5), Phegasus\_33 (P1), Phineas\_33 (P1), Polkaroo\_33 (P1), Purky\_40 (P6), Pygmy\_35 (P1), Shipwreck\_35 (P1), Sonah\_33 (P1), StevieRay\_33 (P1), StressBall\_33 (P1), Techage\_33 (P1), Thespi\_33 (P1), Venti\_33 (P1), Vidya\_33 (P1), Willsammy\_32 (P1), Zilizebeth\_33 (P1),

### Summary by clusters:

There are 4 clusters represented in this pham: P1, P6, P4, P5,

Info for manual annotations of cluster P1:

- Start number 1 was manually annotated 43 times for cluster P1.

Info for manual annotations of cluster P4:

- Start number 1 was manually annotated 2 times for cluster P4.

Info for manual annotations of cluster P5:

- Start number 1 was manually annotated 1 time for cluster P5.

Info for manual annotations of cluster P6:

- Start number 1 was manually annotated 1 time for cluster P6.

### Gene Information:

Gene: Arib1\_33 Start: 27712, Stop: 27948, Start Num: 1

Candidate Starts for Arib1\_33:

(Start: 1 @27712 has 47 MA's), (5, 27859), (6, 27871), (8, 27931),

Gene: Atcoo\_33 Start: 28193, Stop: 28429, Start Num: 1

Candidate Starts for Atcoo\_33:

(Start: 1 @28193 has 47 MA's), (2, 28238), (3, 28298), (5, 28340), (6, 28352), (8, 28412),

Gene: Bartholomew\_32 Start: 27706, Stop: 27942, Start Num: 1  
Candidate Starts for Bartholomew\_32:  
(Start: 1 @27706 has 47 MA's), (2, 27751), (3, 27811), (5, 27853), (6, 27865), (8, 27925),

Gene: Bhagsy\_33 Start: 27702, Stop: 27938, Start Num: 1  
Candidate Starts for Bhagsy\_33:  
(Start: 1 @27702 has 47 MA's), (2, 27747), (3, 27807), (5, 27849), (6, 27861),

Gene: BigNuz\_36 Start: 29834, Stop: 30067, Start Num: 1  
Candidate Starts for BigNuz\_36:  
(Start: 1 @29834 has 47 MA's), (6, 29990),

Gene: Bogie\_35 Start: 29489, Stop: 29725, Start Num: 1  
Candidate Starts for Bogie\_35:  
(Start: 1 @29489 has 47 MA's), (5, 29636), (6, 29648), (8, 29708),

Gene: BronnyJr\_33 Start: 28203, Stop: 28439, Start Num: 1  
Candidate Starts for BronnyJr\_33:  
(Start: 1 @28203 has 47 MA's), (2, 28248), (3, 28308), (5, 28350), (6, 28362), (8, 28422),

Gene: Brusacoram\_33 Start: 27699, Stop: 27935, Start Num: 1  
Candidate Starts for Brusacoram\_33:  
(Start: 1 @27699 has 47 MA's), (2, 27744), (3, 27804), (5, 27846), (6, 27858), (8, 27918),

Gene: Bunnies\_33 Start: 27720, Stop: 27956, Start Num: 1  
Candidate Starts for Bunnies\_33:  
(Start: 1 @27720 has 47 MA's), (2, 27765), (3, 27825), (5, 27867), (6, 27879), (8, 27939),

Gene: CactusJack\_33 Start: 27963, Stop: 28199, Start Num: 1  
Candidate Starts for CactusJack\_33:  
(Start: 1 @27963 has 47 MA's), (2, 28008), (3, 28068), (5, 28110), (6, 28122), (8, 28182),

Gene: Camster\_33 Start: 27736, Stop: 27972, Start Num: 1  
Candidate Starts for Camster\_33:  
(Start: 1 @27736 has 47 MA's), (2, 27781), (3, 27841), (5, 27883), (6, 27895), (8, 27955),

Gene: Chubbello\_33 Start: 27705, Stop: 27938, Start Num: 1  
Candidate Starts for Chubbello\_33:  
(Start: 1 @27705 has 47 MA's), (4, 27819), (8, 27921),

Gene: Donovan\_33 Start: 27728, Stop: 27964, Start Num: 1  
Candidate Starts for Donovan\_33:  
(Start: 1 @27728 has 47 MA's), (2, 27773), (5, 27875), (6, 27887),

Gene: Dynamo\_33 Start: 28117, Stop: 28350, Start Num: 1  
Candidate Starts for Dynamo\_33:  
(Start: 1 @28117 has 47 MA's), (4, 28231), (8, 28333),

Gene: Etoile\_33 Start: 27706, Stop: 27942, Start Num: 1  
Candidate Starts for Etoile\_33:  
(Start: 1 @27706 has 47 MA's), (2, 27751), (3, 27811), (5, 27853), (6, 27865), (8, 27925),

Gene: FirstPlacePfu\_33 Start: 27738, Stop: 27974, Start Num: 1

Candidate Starts for FirstPlacePfu\_33:

(Start: 1 @27738 has 47 MA's), (2, 27783), (3, 27843), (5, 27885), (6, 27897), (8, 27957),

Gene: Fishburne\_33 Start: 27706, Stop: 27942, Start Num: 1

Candidate Starts for Fishburne\_33:

(Start: 1 @27706 has 47 MA's), (2, 27751), (3, 27811), (5, 27853), (6, 27865), (8, 27925),

Gene: GaloreK\_33 Start: 27702, Stop: 27938, Start Num: 1

Candidate Starts for GaloreK\_33:

(Start: 1 @27702 has 47 MA's), (5, 27849), (6, 27861), (8, 27921),

Gene: Gavriela\_33 Start: 27963, Stop: 28199, Start Num: 1

Candidate Starts for Gavriela\_33:

(Start: 1 @27963 has 47 MA's), (2, 28008), (3, 28068), (5, 28110), (6, 28122), (8, 28182),

Gene: Glaske\_33 Start: 27963, Stop: 28199, Start Num: 1

Candidate Starts for Glaske\_33:

(Start: 1 @27963 has 47 MA's), (2, 28008), (3, 28068), (5, 28110), (6, 28122), (8, 28182),

Gene: GreaseLightnin\_33 Start: 27955, Stop: 28182, Start Num: 1

Candidate Starts for GreaseLightnin\_33:

(Start: 1 @27955 has 47 MA's), (5, 28093),

Gene: HUHilltop\_33 Start: 27739, Stop: 27975, Start Num: 1

Candidate Starts for HUHilltop\_33:

(Start: 1 @27739 has 47 MA's), (2, 27784), (5, 27886), (6, 27898),

Gene: Jebeks\_34 Start: 27691, Stop: 27927, Start Num: 1

Candidate Starts for Jebeks\_34:

(Start: 1 @27691 has 47 MA's), (2, 27736), (4, 27808), (5, 27838), (8, 27910),

Gene: Jung\_32 Start: 27670, Stop: 27906, Start Num: 1

Candidate Starts for Jung\_32:

(Start: 1 @27670 has 47 MA's), (2, 27715), (3, 27775), (5, 27817), (6, 27829), (8, 27889),

Gene: Juniormint\_33 Start: 27742, Stop: 27978, Start Num: 1

Candidate Starts for Juniormint\_33:

(Start: 1 @27742 has 47 MA's), (2, 27787), (3, 27847), (5, 27889), (6, 27901), (8, 27961),

Gene: Kari\_33 Start: 27703, Stop: 27939, Start Num: 1

Candidate Starts for Kari\_33:

(Start: 1 @27703 has 47 MA's), (2, 27748), (3, 27808), (5, 27850), (6, 27862), (8, 27922),

Gene: KilKor\_33 Start: 27963, Stop: 28199, Start Num: 1

Candidate Starts for KilKor\_33:

(Start: 1 @27963 has 47 MA's), (2, 28008), (3, 28068), (5, 28110), (6, 28122), (8, 28182),

Gene: Ksquared\_33 Start: 27720, Stop: 27956, Start Num: 1

Candidate Starts for Ksquared\_33:

(Start: 1 @27720 has 47 MA's), (2, 27765), (3, 27825), (5, 27867), (6, 27879), (8, 27939),

Gene: Langerak\_33 Start: 27722, Stop: 27958, Start Num: 1

Candidate Starts for Langerak\_33:

(Start: 1 @27722 has 47 MA's), (5, 27869), (6, 27881), (8, 27941),

Gene: Majeke\_33 Start: 27744, Stop: 27980, Start Num: 1

Candidate Starts for Majeke\_33:

(Start: 1 @27744 has 47 MA's), (2, 27789), (3, 27849), (5, 27891), (6, 27903), (8, 27963),

Gene: Malithi\_33 Start: 27629, Stop: 27865, Start Num: 1

Candidate Starts for Malithi\_33:

(Start: 1 @27629 has 47 MA's), (2, 27674), (3, 27734), (5, 27776), (6, 27788), (8, 27848),

Gene: Mangethe\_33 Start: 27744, Stop: 27980, Start Num: 1

Candidate Starts for Mangethe\_33:

(Start: 1 @27744 has 47 MA's), (2, 27789), (3, 27849), (5, 27891), (6, 27903), (8, 27963),

Gene: Megiddo\_33 Start: 27963, Stop: 28199, Start Num: 1

Candidate Starts for Megiddo\_33:

(Start: 1 @27963 has 47 MA's), (2, 28008), (3, 28068), (5, 28110), (6, 28122), (8, 28182),

Gene: Nazo\_37 Start: 29836, Stop: 30069, Start Num: 1

Candidate Starts for Nazo\_37:

(Start: 1 @29836 has 47 MA's), (6, 29992),

Gene: Necropolis\_33 Start: 27703, Stop: 27939, Start Num: 1

Candidate Starts for Necropolis\_33:

(Start: 1 @27703 has 47 MA's), (2, 27748), (3, 27808), (5, 27850), (6, 27862), (8, 27922),

Gene: PeanutPie\_33 Start: 27702, Stop: 27938, Start Num: 1

Candidate Starts for PeanutPie\_33:

(Start: 1 @27702 has 47 MA's), (2, 27747), (3, 27807), (5, 27849), (6, 27861),

Gene: Phalm\_33 Start: 27963, Stop: 28199, Start Num: 1

Candidate Starts for Phalm\_33:

(Start: 1 @27963 has 47 MA's), (2, 28008), (3, 28068), (5, 28110), (6, 28122), (8, 28182),

Gene: Phayonce\_35 Start: 29732, Stop: 29965, Start Num: 1

Candidate Starts for Phayonce\_35:

(Start: 1 @29732 has 47 MA's), (6, 29888), (7, 29918),

Gene: Phegasus\_33 Start: 27711, Stop: 27947, Start Num: 1

Candidate Starts for Phegasus\_33:

(Start: 1 @27711 has 47 MA's), (2, 27756), (3, 27816), (5, 27858), (6, 27870), (8, 27930),

Gene: Phineas\_33 Start: 28077, Stop: 28310, Start Num: 1

Candidate Starts for Phineas\_33:

(Start: 1 @28077 has 47 MA's), (4, 28191), (8, 28293),

Gene: Polkaroo\_33 Start: 27720, Stop: 27956, Start Num: 1

Candidate Starts for Polkaroo\_33:

(Start: 1 @27720 has 47 MA's), (2, 27765), (3, 27825), (5, 27867), (6, 27879), (8, 27939),

Gene: Purky\_40 Start: 30459, Stop: 30692, Start Num: 1

Candidate Starts for Purky\_40:

(Start: 1 @30459 has 47 MA's),

Gene: Pygmy\_35 Start: 29545, Stop: 29781, Start Num: 1  
Candidate Starts for Pygmy\_35:  
(Start: 1 @29545 has 47 MA's), (5, 29692), (6, 29704), (8, 29764),

Gene: Shipwreck\_35 Start: 29520, Stop: 29756, Start Num: 1  
Candidate Starts for Shipwreck\_35:  
(Start: 1 @29520 has 47 MA's), (5, 29667), (6, 29679), (8, 29739),

Gene: Sonah\_33 Start: 27692, Stop: 27928, Start Num: 1  
Candidate Starts for Sonah\_33:  
(Start: 1 @27692 has 47 MA's), (2, 27737), (3, 27797), (5, 27839), (6, 27851), (8, 27911),

Gene: StevieRay\_33 Start: 27671, Stop: 27898, Start Num: 1  
Candidate Starts for StevieRay\_33:  
(Start: 1 @27671 has 47 MA's), (5, 27809),

Gene: StressBall\_33 Start: 27963, Stop: 28199, Start Num: 1  
Candidate Starts for StressBall\_33:  
(Start: 1 @27963 has 47 MA's), (2, 28008), (3, 28068), (5, 28110), (6, 28122), (8, 28182),

Gene: Techage\_33 Start: 27729, Stop: 27965, Start Num: 1  
Candidate Starts for Techage\_33:  
(Start: 1 @27729 has 47 MA's), (2, 27774), (3, 27834), (5, 27876), (6, 27888), (8, 27948),

Gene: Thespis\_33 Start: 27699, Stop: 27935, Start Num: 1  
Candidate Starts for Thespis\_33:  
(Start: 1 @27699 has 47 MA's), (2, 27744), (3, 27804), (5, 27846), (6, 27858), (8, 27918),

Gene: Venti\_33 Start: 27706, Stop: 27942, Start Num: 1  
Candidate Starts for Venti\_33:  
(Start: 1 @27706 has 47 MA's), (2, 27751), (3, 27811), (5, 27853), (6, 27865), (8, 27925),

Gene: Vidya\_33 Start: 27739, Stop: 27975, Start Num: 1  
Candidate Starts for Vidya\_33:  
(Start: 1 @27739 has 47 MA's), (2, 27784), (3, 27844), (5, 27886), (6, 27898), (8, 27958),

Gene: Willsammy\_32 Start: 27446, Stop: 27682, Start Num: 1  
Candidate Starts for Willsammy\_32:  
(Start: 1 @27446 has 47 MA's), (2, 27491), (3, 27551), (5, 27593), (6, 27605), (8, 27665),

Gene: Zilizebeth\_33 Start: 27738, Stop: 27974, Start Num: 1  
Candidate Starts for Zilizebeth\_33:  
(Start: 1 @27738 has 47 MA's), (2, 27783), (3, 27843), (5, 27885), (6, 27897), (8, 27957),