

Pham 163667



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 163667 Report

This analysis was run 04/28/24 on database version 559.

Pham number 163667 has 50 members, 2 are drafts.

Phages represented in each track:

- Track 1 : Archis\_57, BlingBling\_51, Lysidious\_55, Melba\_53
- Track 2 : Barco\_52, MintFen\_54, Jalammah\_57, Malachai\_52, Hitter\_54, Begonia\_52, Wisp\_53, Delian\_57, Fenry\_52, CaptainKirk2\_54, Samba\_53, ZiggyZoo\_54, Zarbodnamra\_53
- Track 3 : Murp\_55, KappaFarmDelta\_55, Wocket\_54
- Track 4 : Frokostdame\_55
- Track 5 : Blueberry\_54, MissRona\_55, Gambino\_57, Azula\_55
- Track 6 : Pipp\_56, Walrus\_52, Petra\_50
- Track 7 : Toast\_54, PCoral7\_54, Fairfaxidum\_55
- Track 8 : PrincePatrick\_53
- Track 9 : Blino\_57, CarolAnn\_56
- Track 10 : William\_56
- Track 11 : Guacamole\_51, JasperJr\_51
- Track 12 : UmaThurman\_51
- Track 13 : Mellie\_52
- Track 14 : Obliviate\_50
- Track 15 : Utz\_47
- Track 16 : PhrostedPhlake\_55
- Track 17 : JuJu\_60
- Track 18 : LonelyBoi\_51
- Track 19 : Dolores\_52, WinkNick\_53
- Track 20 : Faith5x5\_36
- Track 21 : Dmitri\_47
- Track 22 : Hedwig\_50
- Track 23 : Kiko\_47

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

The start number called the most often in the published annotations is 27, it was called in 20 of the 48 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Archis\_57, BlingBling\_51, Blino\_57, CarolAnn\_56, Frokostdame\_55, Guacamole\_51, JasperJr\_51, JuJu\_60, KappaFarmDelta\_55, Lysidious\_55,

Melba\_53, Murp\_55, Obliviate\_50, Petra\_50, PhrostedPhlake\_55, Pipp\_56, UmaThurman\_51, Utz\_47, Walrus\_52, Wocket\_54,

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

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

- Azula\_55, Barco\_52, Begonia\_52, Blueberry\_54, CaptainKirk2\_54, Delian\_57, Dmitri\_47, Dolores\_52, Fairfaxidum\_55, Faith5x5\_36, Ferry\_52, Gambino\_57, Hedwig\_50, Hitter\_54, Jalammah\_57, Kiko\_47, LonelyBoi\_51, Malachai\_52, Mellie\_52, MintFen\_54, MissRona\_55, PCoral7\_54, PrincePatrick\_53, Samba\_53, Toast\_54, William\_56, WinkNick\_53, Wisp\_53, Zarbodnamra\_53, ZiggyZoo\_54,

### Summary by start number:

Start 24:

- Found in 4 of 50 ( 8.0% ) of genes in pham
- Manual Annotations of this start: 4 of 48
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Azula\_55 (CV), Blueberry\_54 (CV), Gambino\_57 (CV), MissRona\_55 (CV),

Start 27:

- Found in 20 of 50 ( 40.0% ) of genes in pham
- Manual Annotations of this start: 20 of 48
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Archis\_57 (CV), BlingBling\_51 (CV), Blino\_57 (CV), CarolAnn\_56 (CV), Frokostdame\_55 (CV), Guacamole\_51 (CV), JasperJr\_51 (CV), JuJu\_60 (CV), KappaFarmDelta\_55 (CV), Lysidious\_55 (CV), Melba\_53 (CV), Murp\_55 (CV), Obliviate\_50 (CV), Petra\_50 (CV), PhrostedPhlake\_55 (CV), Pipp\_56 (CV), UmaThurman\_51 (CV), Utz\_47 (CV), Walrus\_52 (CV), Wocket\_54 (CV),

Start 28:

- Found in 4 of 50 ( 8.0% ) of genes in pham
- Manual Annotations of this start: 3 of 48
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Fairfaxidum\_55 (CV), PCoral7\_54 (CV), PrincePatrick\_53 (CV), Toast\_54 (CV),

Start 29:

- Found in 1 of 50 ( 2.0% ) of genes in pham
- Manual Annotations of this start: 1 of 48
- Called 100.0% of time when present
- Phage (with cluster) where this start called: William\_56 (CV),

Start 31:

- Found in 4 of 50 ( 8.0% ) of genes in pham
- Manual Annotations of this start: 1 of 48
- Called 25.0% of time when present
- Phage (with cluster) where this start called: Kiko\_47 (DB),

Start 32:

- Found in 2 of 50 ( 4.0% ) of genes in pham
- Manual Annotations of this start: 1 of 48
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Dmitri\_47 (DB),

Start 33:

- Found in 3 of 50 ( 6.0% ) of genes in pham
- Manual Annotations of this start: 1 of 48
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Hedwig\_50 (DB),

Start 34:

- Found in 4 of 50 ( 8.0% ) of genes in pham
- Manual Annotations of this start: 4 of 48
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Dolores\_52 (CZ4), Faith5x5\_36 (CZ6), LonelyBoi\_51 (CY), WinkNick\_53 (CZ4),

Start 35:

- Found in 14 of 50 ( 28.0% ) of genes in pham
- Manual Annotations of this start: 13 of 48
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Barco\_52 (CV), Begonia\_52 (CV), CaptainKirk2\_54 (CV), Delian\_57 (CV), Fenry\_52 (CV), Hitter\_54 (CV), Jalammah\_57 (CV), Malachai\_52 (CV), Mellie\_52 (CV), MintFen\_54 (CV), Samba\_53 (CV), Wisp\_53 (CV), Zarbodnamra\_53 (CV), ZiggyZoo\_54 (CV),

### **Summary by clusters:**

There are 5 clusters represented in this pham: CZ6, CY, DB, CV, CZ4,

Info for manual annotations of cluster CV:

- Start number 24 was manually annotated 4 times for cluster CV.
- Start number 27 was manually annotated 20 times for cluster CV.
- Start number 28 was manually annotated 3 times for cluster CV.
- Start number 29 was manually annotated 1 time for cluster CV.
- Start number 35 was manually annotated 13 times for cluster CV.

Info for manual annotations of cluster CY:

- Start number 34 was manually annotated 1 time for cluster CY.

Info for manual annotations of cluster CZ4:

- Start number 34 was manually annotated 2 times for cluster CZ4.

Info for manual annotations of cluster CZ6:

- Start number 34 was manually annotated 1 time for cluster CZ6.

Info for manual annotations of cluster DB:

- Start number 31 was manually annotated 1 time for cluster DB.
- Start number 32 was manually annotated 1 time for cluster DB.
- Start number 33 was manually annotated 1 time for cluster DB.

### **Gene Information:**

Gene: Archis\_57 Start: 36449, Stop: 36763, Start Num: 27

Candidate Starts for Archis\_57:

(15, 36254), (Start: 27 @36449 has 20 MA's), (36, 36554), (38, 36593), (39, 36596), (42, 36632), (44, 36662),

Gene: Azula\_55 Start: 38102, Stop: 38458, Start Num: 24

Candidate Starts for Azula\_55:

(Start: 24 @38102 has 4 MA's), (36, 38249), (38, 38288), (39, 38291),

Gene: Barco\_52 Start: 35493, Stop: 35723, Start Num: 35

Candidate Starts for Barco\_52:

(Start: 35 @35493 has 13 MA's), (42, 35592),

Gene: Begonia\_52 Start: 38032, Stop: 38262, Start Num: 35

Candidate Starts for Begonia\_52:

(Start: 35 @38032 has 13 MA's), (42, 38131),

Gene: BlingBling\_51 Start: 36462, Stop: 36776, Start Num: 27

Candidate Starts for BlingBling\_51:

(15, 36267), (Start: 27 @36462 has 20 MA's), (36, 36567), (38, 36606), (39, 36609), (42, 36645), (44, 36675),

Gene: Blino\_57 Start: 41408, Stop: 41722, Start Num: 27

Candidate Starts for Blino\_57:

(13, 41195), (22, 41318), (Start: 27 @41408 has 20 MA's), (36, 41513), (38, 41552), (39, 41555), (42, 41591), (43, 41597), (44, 41621),

Gene: Blueberry\_54 Start: 38102, Stop: 38458, Start Num: 24

Candidate Starts for Blueberry\_54:

(Start: 24 @38102 has 4 MA's), (36, 38249), (38, 38288), (39, 38291),

Gene: CaptainKirk2\_54 Start: 35741, Stop: 35971, Start Num: 35

Candidate Starts for CaptainKirk2\_54:

(Start: 35 @35741 has 13 MA's), (42, 35840),

Gene: CarolAnn\_56 Start: 41407, Stop: 41721, Start Num: 27

Candidate Starts for CarolAnn\_56:

(13, 41194), (22, 41317), (Start: 27 @41407 has 20 MA's), (36, 41512), (38, 41551), (39, 41554), (42, 41590), (43, 41596), (44, 41620),

Gene: Delian\_57 Start: 35739, Stop: 35969, Start Num: 35

Candidate Starts for Delian\_57:

(Start: 35 @35739 has 13 MA's), (42, 35838),

Gene: Dmitri\_47 Start: 35769, Stop: 36026, Start Num: 32

Candidate Starts for Dmitri\_47:

(2, 35253), (5, 35325), (6, 35328), (10, 35490), (12, 35508), (14, 35511), (20, 35616), (Start: 31 @35766 has 1 MA's), (Start: 32 @35769 has 1 MA's), (Start: 33 @35817 has 1 MA's),

Gene: Dolores\_52 Start: 35935, Stop: 36165, Start Num: 34

Candidate Starts for Dolores\_52:

(Start: 34 @35935 has 4 MA's), (43, 36040),

Gene: Fairfaxidum\_55 Start: 38250, Stop: 38555, Start Num: 28

Candidate Starts for Fairfaxidum\_55:

(Start: 28 @38250 has 3 MA's), (36, 38346), (38, 38385), (39, 38388), (45, 38457),

Gene: Faith5x5\_36 Start: 28409, Stop: 28639, Start Num: 34

Candidate Starts for Faith5x5\_36:

(18, 28133), (19, 28163), (25, 28283), (26, 28289), (Start: 34 @28409 has 4 MA's), (42, 28517),

Gene: Fenry\_52 Start: 37237, Stop: 37467, Start Num: 35

Candidate Starts for Fenry\_52:

(Start: 35 @37237 has 13 MA's), (42, 37336),

Gene: Frokostdame\_55 Start: 37773, Stop: 38087, Start Num: 27

Candidate Starts for Frokostdame\_55:

(7, 37473), (11, 37548), (Start: 27 @37773 has 20 MA's), (36, 37878), (38, 37917), (39, 37920), (42, 37956),

Gene: Gambino\_57 Start: 38102, Stop: 38458, Start Num: 24

Candidate Starts for Gambino\_57:

(Start: 24 @38102 has 4 MA's), (36, 38249), (38, 38288), (39, 38291),

Gene: Guacamole\_51 Start: 35884, Stop: 36198, Start Num: 27

Candidate Starts for Guacamole\_51:

(15, 35689), (Start: 27 @35884 has 20 MA's), (36, 35989), (38, 36028), (39, 36031), (42, 36067),

Gene: Hedwig\_50 Start: 34705, Stop: 34995, Start Num: 33

Candidate Starts for Hedwig\_50:

(Start: 31 @34654 has 1 MA's), (Start: 32 @34657 has 1 MA's), (Start: 33 @34705 has 1 MA's), (37, 34759), (42, 34864), (45, 34897), (46, 34948),

Gene: Hitter\_54 Start: 35535, Stop: 35765, Start Num: 35

Candidate Starts for Hitter\_54:

(Start: 35 @35535 has 13 MA's), (42, 35634),

Gene: Jalammah\_57 Start: 38538, Stop: 38768, Start Num: 35

Candidate Starts for Jalammah\_57:

(Start: 35 @38538 has 13 MA's), (42, 38637),

Gene: JasperJr\_51 Start: 35884, Stop: 36198, Start Num: 27

Candidate Starts for JasperJr\_51:

(15, 35689), (Start: 27 @35884 has 20 MA's), (36, 35989), (38, 36028), (39, 36031), (42, 36067),

Gene: JuJu\_60 Start: 39886, Stop: 40185, Start Num: 27

Candidate Starts for JuJu\_60:

(3, 39463), (8, 39601), (13, 39673), (19, 39748), (Start: 27 @39886 has 20 MA's), (41, 40033), (42, 40054),

Gene: KappaFarmDelta\_55 Start: 36090, Stop: 36404, Start Num: 27

Candidate Starts for KappaFarmDelta\_55:

(Start: 27 @36090 has 20 MA's), (36, 36195), (38, 36234), (39, 36237), (42, 36273), (44, 36303),

Gene: Kiko\_47 Start: 34593, Stop: 34889, Start Num: 31

Candidate Starts for Kiko\_47:

(1, 33921), (4, 34128), (9, 34305), (10, 34314), (12, 34332), (14, 34335), (20, 34440), (Start: 31 @34593 has 1 MA's), (Start: 33 @34650 has 1 MA's), (42, 34758), (46, 34842),

Gene: LonelyBoi\_51 Start: 39893, Stop: 40123, Start Num: 34

Candidate Starts for LonelyBoi\_51:

(16, 39602), (30, 39812), (Start: 31 @39833 has 1 MA's), (Start: 34 @39893 has 4 MA's), (40, 39965), (42, 39992),

Gene: Lysidious\_55 Start: 37815, Stop: 38129, Start Num: 27

Candidate Starts for Lysidious\_55:

(15, 37620), (Start: 27 @37815 has 20 MA's), (36, 37920), (38, 37959), (39, 37962), (42, 37998), (44, 38028),

Gene: Malachai\_52 Start: 38032, Stop: 38262, Start Num: 35

Candidate Starts for Malachai\_52:

(Start: 35 @38032 has 13 MA's), (42, 38131),

Gene: Melba\_53 Start: 36287, Stop: 36601, Start Num: 27

Candidate Starts for Melba\_53:

(15, 36092), (Start: 27 @36287 has 20 MA's), (36, 36392), (38, 36431), (39, 36434), (42, 36470), (44, 36500),

Gene: Mellie\_52 Start: 35921, Stop: 36151, Start Num: 35

Candidate Starts for Mellie\_52:

(17, 35639), (21, 35711), (23, 35732), (Start: 35 @35921 has 13 MA's), (42, 36020),

Gene: MintFen\_54 Start: 36355, Stop: 36585, Start Num: 35

Candidate Starts for MintFen\_54:

(Start: 35 @36355 has 13 MA's), (42, 36454),

Gene: MissRona\_55 Start: 38103, Stop: 38459, Start Num: 24

Candidate Starts for MissRona\_55:

(Start: 24 @38103 has 4 MA's), (36, 38250), (38, 38289), (39, 38292),

Gene: Murp\_55 Start: 39677, Stop: 39991, Start Num: 27

Candidate Starts for Murp\_55:

(Start: 27 @39677 has 20 MA's), (36, 39782), (38, 39821), (39, 39824), (42, 39860), (44, 39890),

Gene: Obliviate\_50 Start: 34448, Stop: 34762, Start Num: 27

Candidate Starts for Obliviate\_50:

(Start: 27 @34448 has 20 MA's), (36, 34553), (38, 34592), (39, 34595), (42, 34631), (44, 34661),

Gene: PCoral7\_54 Start: 37667, Stop: 37972, Start Num: 28

Candidate Starts for PCoral7\_54:

(Start: 28 @37667 has 3 MA's), (36, 37763), (38, 37802), (39, 37805), (45, 37874),

Gene: Petra\_50 Start: 34588, Stop: 34902, Start Num: 27

Candidate Starts for Petra\_50:

(Start: 27 @34588 has 20 MA's), (36, 34693), (38, 34732), (39, 34735), (42, 34771),

Gene: PhrostedPhlake\_55 Start: 35882, Stop: 36196, Start Num: 27

Candidate Starts for PhrostedPhlake\_55:

(Start: 27 @35882 has 20 MA's), (36, 35987), (38, 36026), (39, 36029), (42, 36065),

Gene: Pipp\_56 Start: 36955, Stop: 37269, Start Num: 27

Candidate Starts for Pipp\_56:

(Start: 27 @36955 has 20 MA's), (36, 37060), (38, 37099), (39, 37102), (42, 37138),

Gene: PrincePatrick\_53 Start: 36016, Stop: 36321, Start Num: 28

Candidate Starts for PrincePatrick\_53:

(Start: 28 @36016 has 3 MA's), (36, 36112), (39, 36154), (45, 36223),

Gene: Samba\_53 Start: 38568, Stop: 38798, Start Num: 35

Candidate Starts for Samba\_53:

(Start: 35 @38568 has 13 MA's), (42, 38667),

Gene: Toast\_54 Start: 37667, Stop: 37972, Start Num: 28

Candidate Starts for Toast\_54:

(Start: 28 @37667 has 3 MA's), (36, 37763), (38, 37802), (39, 37805), (45, 37874),

Gene: UmaThurman\_51 Start: 36685, Stop: 36999, Start Num: 27

Candidate Starts for UmaThurman\_51:

(13, 36472), (Start: 27 @36685 has 20 MA's), (36, 36790), (38, 36829), (39, 36832), (42, 36868), (43, 36874), (44, 36898),

Gene: Utz\_47 Start: 36827, Stop: 37141, Start Num: 27

Candidate Starts for Utz\_47:

(15, 36632), (Start: 27 @36827 has 20 MA's), (36, 36932), (38, 36971), (39, 36974), (42, 37010), (44, 37040),

Gene: Walrus\_52 Start: 35763, Stop: 36077, Start Num: 27

Candidate Starts for Walrus\_52:

(Start: 27 @35763 has 20 MA's), (36, 35868), (38, 35907), (39, 35910), (42, 35946),

Gene: William\_56 Start: 38345, Stop: 38647, Start Num: 29

Candidate Starts for William\_56:

(Start: 29 @38345 has 1 MA's), (36, 38438), (38, 38477), (39, 38480), (42, 38516),

Gene: WinkNick\_53 Start: 35858, Stop: 36088, Start Num: 34

Candidate Starts for WinkNick\_53:

(Start: 34 @35858 has 4 MA's), (43, 35963),

Gene: Wisp\_53 Start: 37049, Stop: 37279, Start Num: 35

Candidate Starts for Wisp\_53:

(Start: 35 @37049 has 13 MA's), (42, 37148),

Gene: Wocket\_54 Start: 36257, Stop: 36571, Start Num: 27

Candidate Starts for Wocket\_54:

(Start: 27 @36257 has 20 MA's), (36, 36362), (38, 36401), (39, 36404), (42, 36440), (44, 36470),

Gene: Zarbodnamra\_53 Start: 35763, Stop: 35993, Start Num: 35

Candidate Starts for Zarbodnamra\_53:

(Start: 35 @35763 has 13 MA's), (42, 35862),



Gene: ZiggyZoo\_54 Start: 38096, Stop: 38326, Start Num: 35  
Candidate Starts for ZiggyZoo\_54:  
(Start: 35 @38096 has 13 MA's), (42, 38195),