

Pham 308964



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 308964 Report

This analysis was run 06/27/26 on database version 652.

Pham number 308964 has 35 members, 3 are drafts.

Phages represented in each track:

- Track 1 : Madraxi\_33
- Track 2 : Katyusha\_37, Kvothe\_37, Niagara\_37, Teatealatte\_37, Teech\_37, Benczkowski14\_37, Tredge\_37
- Track 3 : Philon9\_39, Vitaenoi\_39
- Track 4 : ASerpRocky\_37, Demosthenes\_37
- Track 5 : Hollow\_38
- Track 6 : Wocket\_26
- Track 7 : LonelyBoi\_26
- Track 8 : Sidious\_25
- Track 9 : GMA3\_30
- Track 10 : Jumbo\_39
- Track 11 : Camerico\_42
- Track 12 : Aminay\_34
- Track 13 : Zenon\_39, Send513\_38, Candle\_38
- Track 14 : Nilo\_39, Rope\_38, Papyrus\_38, Weiss13\_38
- Track 15 : Yelo\_38
- Track 16 : MontyDev\_38
- Track 17 : Riparian\_38
- Track 18 : SuperSonics\_44, Labelle\_44, Madrug\_43, Demikore\_45, Patience\_45

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

The start number called the most often in the published annotations is 6, it was called in 14 of the 32 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- ASerpRocky\_37, Benczkowski14\_37, Camerico\_42, Demosthenes\_37, GMA3\_30, Hollow\_38, Jumbo\_39, Katyusha\_37, Kvothe\_37, Niagara\_37, Philon9\_39, Teatealatte\_37, Teech\_37, Tredge\_37, Vitaenoi\_39,

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:

- Aminay\_34, Candle\_38, Demikore\_45, Labelle\_44, LonelyBoi\_26, Madraxi\_33, Madruga\_43, MontyDev\_38, Nilo\_39, Papyrus\_38, Patience\_45, Riparian\_38, Rope\_38, Send513\_38, Sidious\_25, SuperSonics\_44, Weiss13\_38, Wocket\_26, Yelo\_38, Zenon\_39,

### Summary by start number:

#### Start 5:

- Found in 1 of 35 ( 2.9% ) of genes in pham
- Manual Annotations of this start: 1 of 32
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Aminay\_34 (K7),

#### Start 6:

- Found in 15 of 35 ( 42.9% ) of genes in pham
- Manual Annotations of this start: 14 of 32
- Called 100.0% of time when present
- Phage (with cluster) where this start called: ASerpRocky\_37 (CS4), Benczkowski14\_37 (CS4), Camerico\_42 (DF4), Demosthenes\_37 (CS4), GMA3\_30 (DF2), Hollow\_38 (CS4), Jumbo\_39 (DF3), Katyusha\_37 (CS4), Kvothe\_37 (CS4), Niagara\_37 (CS4), Philon9\_39 (CS4), Teatealatte\_37 (CS4), Teech\_37 (CS4), Tredge\_37 (CS4), Vitaenoi\_39 (CS4),

#### Start 7:

- Found in 6 of 35 ( 17.1% ) of genes in pham
- Manual Annotations of this start: 3 of 32
- Called 83.3% of time when present
- Phage (with cluster) where this start called: Demikore\_45 (U), Labelle\_44 (U), Madruga\_43 (U), Patience\_45 (U), SuperSonics\_44 (U),

#### Start 9:

- Found in 10 of 35 ( 28.6% ) of genes in pham
- Manual Annotations of this start: 8 of 32
- Called 80.0% of time when present
- Phage (with cluster) where this start called: Candle\_38 (R), Nilo\_39 (R), Papyrus\_38 (R), Riparian\_38 (R), Rope\_38 (R), Send513\_38 (R), Weiss13\_38 (R), Zenon\_39 (R),

#### Start 10:

- Found in 13 of 35 ( 37.1% ) of genes in pham
- Manual Annotations of this start: 5 of 32
- Called 38.5% of time when present
- Phage (with cluster) where this start called: LonelyBoi\_26 (CY7), MontyDev\_38 (R), Sidious\_25 (CZ7), Wocket\_26 (CV), Yelo\_38 (R),

#### Start 15:

- Found in 5 of 35 ( 14.3% ) of genes in pham
- Manual Annotations of this start: 1 of 32
- Called 20.0% of time when present
- Phage (with cluster) where this start called: Madraxi\_33 (CF),

### Summary by clusters:

There are 11 clusters represented in this pham: CZ7, CY7, DF4, CF, DF3, DF2, R, U, K7, CS4, CV,

Info for manual annotations of cluster CF:

- Start number 15 was manually annotated 1 time for cluster CF.

Info for manual annotations of cluster CS4:

- Start number 6 was manually annotated 12 times for cluster CS4.

Info for manual annotations of cluster CV:

- Start number 10 was manually annotated 1 time for cluster CV.

Info for manual annotations of cluster CY7:

- Start number 10 was manually annotated 1 time for cluster CY7.

Info for manual annotations of cluster CZ7:

- Start number 10 was manually annotated 1 time for cluster CZ7.

Info for manual annotations of cluster DF3:

- Start number 6 was manually annotated 1 time for cluster DF3.

Info for manual annotations of cluster DF4:

- Start number 6 was manually annotated 1 time for cluster DF4.

Info for manual annotations of cluster K7:

- Start number 5 was manually annotated 1 time for cluster K7.

Info for manual annotations of cluster R:

- Start number 9 was manually annotated 8 times for cluster R.
- Start number 10 was manually annotated 2 times for cluster R.

Info for manual annotations of cluster U:

- Start number 7 was manually annotated 3 times for cluster U.

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

Gene: ASerpRocky\_37 Start: 42293, Stop: 42688, Start Num: 6

Candidate Starts for ASerpRocky\_37:

(Start: 6 @42293 has 14 MA's), (27, 42470), (36, 42554), (39, 42566), (43, 42596), (52, 42653), (54, 42668),

Gene: Aminay\_34 Start: 29414, Stop: 29812, Start Num: 5

Candidate Starts for Aminay\_34:

(Start: 5 @29414 has 1 MA's), (12, 29483), (22, 29552), (26, 29591), (33, 29663), (41, 29708), (53, 29786),

Gene: Benczkowski14\_37 Start: 42326, Stop: 42721, Start Num: 6

Candidate Starts for Benczkowski14\_37:

(Start: 6 @42326 has 14 MA's), (27, 42503), (36, 42587), (39, 42599), (40, 42602), (43, 42629), (54, 42701),

Gene: Camerico\_42 Start: 44175, Stop: 44552, Start Num: 6  
Candidate Starts for Camerico\_42:  
(Start: 6 @44175 has 14 MA's), (48, 44487), (52, 44517), (55, 44547),

Gene: Candle\_38 Start: 34945, Stop: 35349, Start Num: 9  
Candidate Starts for Candle\_38:  
(4, 34828), (Start: 9 @34945 has 8 MA's), (Start: 10 @34951 has 5 MA's), (Start: 15 @34990 has 1 MA's), (37, 35194), (44, 35233), (45, 35239), (51, 35284), (53, 35290),

Gene: Demikore\_45 Start: 37094, Stop: 37480, Start Num: 7  
Candidate Starts for Demikore\_45:  
(Start: 7 @37094 has 3 MA's), (16, 37145), (19, 37172), (20, 37175), (23, 37223), (38, 37358), (43, 37391), (46, 37403), (47, 37409),

Gene: Demosthenes\_37 Start: 42266, Stop: 42661, Start Num: 6  
Candidate Starts for Demosthenes\_37:  
(Start: 6 @42266 has 14 MA's), (27, 42443), (36, 42527), (39, 42539), (43, 42569), (52, 42626), (54, 42641),

Gene: GMA3\_30 Start: 37862, Stop: 38239, Start Num: 6  
Candidate Starts for GMA3\_30:  
(Start: 6 @37862 has 14 MA's), (31, 38054), (32, 38063), (43, 38147), (44, 38150),

Gene: Hollow\_38 Start: 42672, Stop: 43067, Start Num: 6  
Candidate Starts for Hollow\_38:  
(Start: 6 @42672 has 14 MA's), (27, 42849), (39, 42945), (40, 42948), (43, 42975), (54, 43047),

Gene: Jumbo\_39 Start: 43199, Stop: 43576, Start Num: 6  
Candidate Starts for Jumbo\_39:  
(Start: 6 @43199 has 14 MA's), (8, 43205), (13, 43226), (14, 43238), (30, 43388), (39, 43454), (46, 43496), (49, 43517),

Gene: Katyusha\_37 Start: 42326, Stop: 42721, Start Num: 6  
Candidate Starts for Katyusha\_37:  
(Start: 6 @42326 has 14 MA's), (27, 42503), (36, 42587), (39, 42599), (40, 42602), (43, 42629), (54, 42701),

Gene: Kvothe\_37 Start: 42225, Stop: 42620, Start Num: 6  
Candidate Starts for Kvothe\_37:  
(Start: 6 @42225 has 14 MA's), (27, 42402), (36, 42486), (39, 42498), (40, 42501), (43, 42528), (54, 42600),

Gene: Labelle\_44 Start: 37097, Stop: 37483, Start Num: 7  
Candidate Starts for Labelle\_44:  
(Start: 7 @37097 has 3 MA's), (16, 37148), (19, 37175), (20, 37178), (23, 37226), (38, 37361), (43, 37394), (46, 37406), (47, 37412),

Gene: LonelyBoi\_26 Start: 22173, Stop: 22523, Start Num: 10  
Candidate Starts for LonelyBoi\_26:  
(1, 21762), (2, 21846), (Start: 10 @22173 has 5 MA's), (11, 22179), (20, 22245), (29, 22335), (42, 22446), (50, 22500),

Gene: Madraxi\_33 Start: 30365, Stop: 30688, Start Num: 15

Candidate Starts for Madraxi\_33:

(Start: 7 @30317 has 3 MA's), (Start: 15 @30365 has 1 MA's), (19, 30395), (21, 30416), (24, 30464), (25, 30473), (28, 30497), (34, 30557), (35, 30569), (44, 30623),

Gene: Madruga\_43 Start: 36765, Stop: 37151, Start Num: 7

Candidate Starts for Madruga\_43:

(Start: 7 @36765 has 3 MA's), (16, 36816), (19, 36843), (20, 36846), (23, 36894), (38, 37029), (43, 37062), (46, 37074), (47, 37080),

Gene: MontyDev\_38 Start: 34598, Stop: 34996, Start Num: 10

Candidate Starts for MontyDev\_38:

(4, 34475), (Start: 9 @34592 has 8 MA's), (Start: 10 @34598 has 5 MA's), (37, 34841), (44, 34880), (45, 34886), (51, 34931), (53, 34937),

Gene: Niagara\_37 Start: 42283, Stop: 42678, Start Num: 6

Candidate Starts for Niagara\_37:

(Start: 6 @42283 has 14 MA's), (27, 42460), (36, 42544), (39, 42556), (40, 42559), (43, 42586), (54, 42658),

Gene: Nilo\_39 Start: 34948, Stop: 35352, Start Num: 9

Candidate Starts for Nilo\_39:

(4, 34831), (Start: 9 @34948 has 8 MA's), (Start: 10 @34954 has 5 MA's), (37, 35197), (44, 35236), (45, 35242), (51, 35287), (53, 35293),

Gene: Papyrus\_38 Start: 34607, Stop: 35011, Start Num: 9

Candidate Starts for Papyrus\_38:

(4, 34490), (Start: 9 @34607 has 8 MA's), (Start: 10 @34613 has 5 MA's), (37, 34856), (44, 34895), (45, 34901), (51, 34946), (53, 34952),

Gene: Patience\_45 Start: 37646, Stop: 38032, Start Num: 7

Candidate Starts for Patience\_45:

(Start: 7 @37646 has 3 MA's), (16, 37697), (19, 37724), (20, 37727), (23, 37775), (38, 37910), (43, 37943), (46, 37955), (47, 37961),

Gene: Philon9\_39 Start: 43489, Stop: 43884, Start Num: 6

Candidate Starts for Philon9\_39:

(Start: 6 @43489 has 14 MA's), (20, 43567), (27, 43666), (36, 43750), (39, 43762), (46, 43804), (48, 43819),

Gene: Riparian\_38 Start: 34409, Stop: 34813, Start Num: 9

Candidate Starts for Riparian\_38:

(4, 34292), (Start: 9 @34409 has 8 MA's), (Start: 10 @34415 has 5 MA's), (17, 34472), (37, 34658), (44, 34697), (45, 34703), (51, 34748), (53, 34754),

Gene: Rope\_38 Start: 34589, Stop: 34993, Start Num: 9

Candidate Starts for Rope\_38:

(4, 34472), (Start: 9 @34589 has 8 MA's), (Start: 10 @34595 has 5 MA's), (37, 34838), (44, 34877), (45, 34883), (51, 34928), (53, 34934),

Gene: Send513\_38 Start: 34945, Stop: 35349, Start Num: 9

Candidate Starts for Send513\_38:

(4, 34828), (Start: 9 @34945 has 8 MA's), (Start: 10 @34951 has 5 MA's), (Start: 15 @34990 has 1 MA's), (37, 35194), (44, 35233), (45, 35239), (51, 35284), (53, 35290),

Gene: Sidious\_25 Start: 21824, Stop: 22174, Start Num: 10

Candidate Starts for Sidious\_25:

(1, 21413), (2, 21497), (Start: 10 @21824 has 5 MA's), (20, 21896), (42, 22097), (48, 22127),

Gene: SuperSonics\_44 Start: 36822, Stop: 37208, Start Num: 7

Candidate Starts for SuperSonics\_44:

(Start: 7 @36822 has 3 MA's), (16, 36873), (19, 36900), (20, 36903), (23, 36951), (38, 37086), (43, 37119), (46, 37131), (47, 37137),

Gene: Teatealatte\_37 Start: 42228, Stop: 42623, Start Num: 6

Candidate Starts for Teatealatte\_37:

(Start: 6 @42228 has 14 MA's), (27, 42405), (36, 42489), (39, 42501), (40, 42504), (43, 42531), (54, 42603),

Gene: Teech\_37 Start: 42029, Stop: 42424, Start Num: 6

Candidate Starts for Teech\_37:

(Start: 6 @42029 has 14 MA's), (27, 42206), (36, 42290), (39, 42302), (40, 42305), (43, 42332), (54, 42404),

Gene: Tredge\_37 Start: 42228, Stop: 42623, Start Num: 6

Candidate Starts for Tredge\_37:

(Start: 6 @42228 has 14 MA's), (27, 42405), (36, 42489), (39, 42501), (40, 42504), (43, 42531), (54, 42603),

Gene: Vitaenoi\_39 Start: 43488, Stop: 43883, Start Num: 6

Candidate Starts for Vitaenoi\_39:

(Start: 6 @43488 has 14 MA's), (20, 43566), (27, 43665), (36, 43749), (39, 43761), (46, 43803), (48, 43818),

Gene: Weiss13\_38 Start: 34641, Stop: 35045, Start Num: 9

Candidate Starts for Weiss13\_38:

(4, 34524), (Start: 9 @34641 has 8 MA's), (Start: 10 @34647 has 5 MA's), (37, 34890), (44, 34929), (45, 34935), (51, 34980), (53, 34986),

Gene: Wocket\_26 Start: 21497, Stop: 21847, Start Num: 10

Candidate Starts for Wocket\_26:

(2, 21170), (3, 21176), (Start: 10 @21497 has 5 MA's), (11, 21503), (18, 21563), (20, 21569), (42, 21770), (44, 21776),

Gene: Yelo\_38 Start: 34940, Stop: 35338, Start Num: 10

Candidate Starts for Yelo\_38:

(4, 34817), (Start: 9 @34934 has 8 MA's), (Start: 10 @34940 has 5 MA's), (Start: 15 @34979 has 1 MA's), (37, 35183), (44, 35222), (45, 35228), (51, 35273), (53, 35279),

Gene: Zenon\_39 Start: 34953, Stop: 35357, Start Num: 9

Candidate Starts for Zenon\_39:

(4, 34836), (Start: 9 @34953 has 8 MA's), (Start: 10 @34959 has 5 MA's), (Start: 15 @34998 has 1 MA's), (37, 35202), (44, 35241), (45, 35247), (51, 35292), (53, 35298),