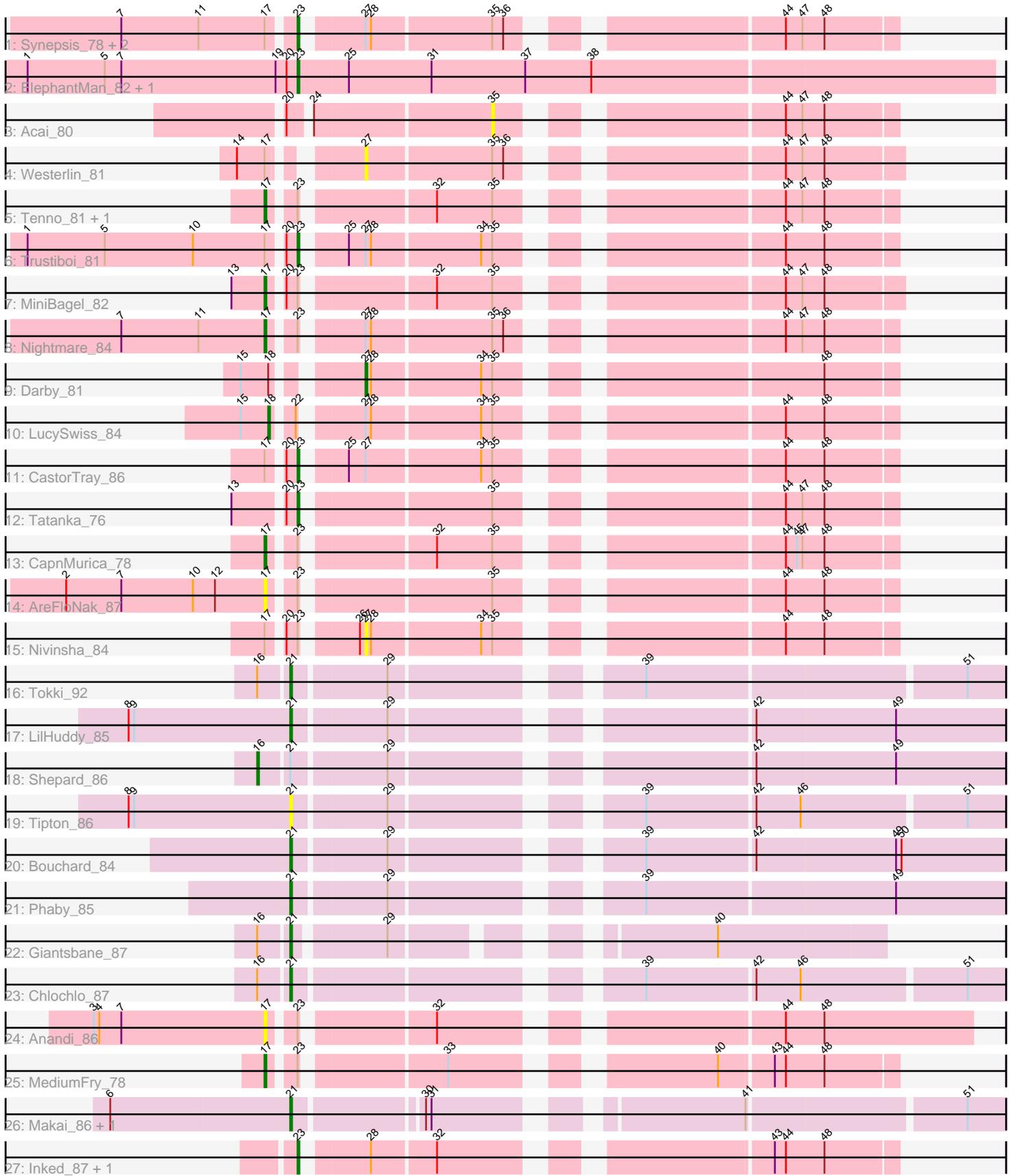


Pham 291379



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 291379 Report

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

Pham number 291379 has 33 members, 7 are drafts.

Phages represented in each track:

- Track 1 : Synopsis\_78, DevitoJr\_82, ScienceWizSam\_84
- Track 2 : ElephantMan\_82, Niktson\_82
- Track 3 : Acai\_80
- Track 4 : Westerlin\_81
- Track 5 : Tenno\_81, Dinallo\_76
- Track 6 : Trustiboi\_81
- Track 7 : MiniBagel\_82
- Track 8 : Nightmare\_84
- Track 9 : Darby\_81
- Track 10 : LucySwiss\_84
- Track 11 : CastorTray\_86
- Track 12 : Tatanka\_76
- Track 13 : CapnMurica\_78
- Track 14 : AreFloNak\_87
- Track 15 : Nivinsha\_84
- Track 16 : Tokki\_92
- Track 17 : LilHuddy\_85
- Track 18 : Shepard\_86
- Track 19 : Tipton\_86
- Track 20 : Bouchard\_84
- Track 21 : Phaby\_85
- Track 22 : Giantsbane\_87
- Track 23 : Chlochlo\_87
- Track 24 : Anandi\_86
- Track 25 : MediumFry\_78
- Track 26 : Makai\_86, Truckee\_83
- Track 27 : Inked\_87, Zippen\_88

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

The start number called the most often in the published annotations is 23, it was called in 10 of the 26 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- CastorTray\_86, DevitoJr\_82, ElephantMan\_82, Inked\_87, Niktson\_82, ScienceWizSam\_84, Synepsis\_78, Tatanka\_76, Trustiboi\_81, Zippen\_88,

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

- Anandi\_86, AreFloNak\_87, CapnMurica\_78, Dinallo\_76, MediumFry\_78, MiniBagel\_82, Nightmare\_84, Nivinsha\_84, Tenno\_81,

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

- Acai\_80, Bouchard\_84, Chlochlo\_87, Darby\_81, Giantsbane\_87, LilHuddy\_85, LucySwiss\_84, Makai\_86, Phaby\_85, Shepard\_86, Tipton\_86, Tokki\_92, Truckee\_83, Westerlin\_81,

### Summary by start number:

Start 16:

- Found in 4 of 33 ( 12.1% ) of genes in pham
- Manual Annotations of this start: 1 of 26
- Called 25.0% of time when present
- Phage (with cluster) where this start called: Shepard\_86 (AU2),

Start 17:

- Found in 15 of 33 ( 45.5% ) of genes in pham
- Manual Annotations of this start: 5 of 26
- Called 53.3% of time when present
- Phage (with cluster) where this start called: Anandi\_86 (AU4), AreFloNak\_87 (AU1), CapnMurica\_78 (AU1), Dinallo\_76 (AU1), MediumFry\_78 (AU4), MiniBagel\_82 (AU1), Nightmare\_84 (AU1), Tenno\_81 (AU1),

Start 18:

- Found in 2 of 33 ( 6.1% ) of genes in pham
- Manual Annotations of this start: 1 of 26
- Called 50.0% of time when present
- Phage (with cluster) where this start called: LucySwiss\_84 (AU1),

Start 21:

- Found in 10 of 33 ( 30.3% ) of genes in pham
- Manual Annotations of this start: 8 of 26
- Called 90.0% of time when present
- Phage (with cluster) where this start called: Bouchard\_84 (AU2), Chlochlo\_87 (AU2), Giantsbane\_87 (AU2), LilHuddy\_85 (AU2), Makai\_86 (AU5), Phaby\_85 (AU2), Tipton\_86 (AU2), Tokki\_92 (AU2), Truckee\_83 (AU5),

Start 23:

- Found in 19 of 33 ( 57.6% ) of genes in pham
- Manual Annotations of this start: 10 of 26
- Called 52.6% of time when present
- Phage (with cluster) where this start called: CastorTray\_86 (AU1), DevitoJr\_82 (AU1), ElephantMan\_82 (AU1), Inked\_87 (AU7), Niktson\_82 (AU1), ScienceWizSam\_84 (AU1), Synepsis\_78 (AU1), Tatanka\_76 (AU1), Trustiboi\_81 (AU1), Zippen\_88 (AU7),

Start 27:

- Found in 10 of 33 ( 30.3% ) of genes in pham

- Manual Annotations of this start: 1 of 26
- Called 30.0% of time when present
- Phage (with cluster) where this start called: Darby\_81 (AU1), Nivinsha\_84 (AU1), Westerlin\_81 (AU1),

Start 35:

- Found in 17 of 33 ( 51.5% ) of genes in pham
- No Manual Annotations of this start.
- Called 5.9% of time when present
- Phage (with cluster) where this start called: Acai\_80 (AU1),

### **Summary by clusters:**

There are 5 clusters represented in this pham: AU1, AU2, AU5, AU4, AU7,

Info for manual annotations of cluster AU1:

- Start number 17 was manually annotated 4 times for cluster AU1.
- Start number 18 was manually annotated 1 time for cluster AU1.
- Start number 23 was manually annotated 8 times for cluster AU1.
- Start number 27 was manually annotated 1 time for cluster AU1.

Info for manual annotations of cluster AU2:

- Start number 16 was manually annotated 1 time for cluster AU2.
- Start number 21 was manually annotated 6 times for cluster AU2.

Info for manual annotations of cluster AU4:

- Start number 17 was manually annotated 1 time for cluster AU4.

Info for manual annotations of cluster AU5:

- Start number 21 was manually annotated 2 times for cluster AU5.

Info for manual annotations of cluster AU7:

- Start number 23 was manually annotated 2 times for cluster AU7.

### **Gene Information:**

Gene: Acai\_80 Start: 52181, Stop: 52366, Start Num: 35

Candidate Starts for Acai\_80:

(20, 52079), (24, 52088), (35, 52181), (44, 52307), (47, 52316), (48, 52328),

Gene: Anandi\_86 Start: 52222, Stop: 52554, Start Num: 17

Candidate Starts for Anandi\_86:

(3, 52129), (4, 52132), (7, 52144), (Start: 17 @52222 has 5 MA's), (Start: 23 @52234 has 10 MA's), (32, 52297), (44, 52453), (48, 52474),

Gene: AreFloNak\_87 Start: 52158, Stop: 52448, Start Num: 17

Candidate Starts for AreFloNak\_87:

(2, 52050), (7, 52080), (10, 52119), (12, 52131), (Start: 17 @52158 has 5 MA's), (Start: 23 @52170 has 10 MA's), (35, 52263), (44, 52389), (48, 52410),

Gene: Bouchard\_84 Start: 52033, Stop: 52383, Start Num: 21

Candidate Starts for Bouchard\_84:

(Start: 21 @52033 has 8 MA's), (29, 52081), (39, 52192), (42, 52249), (49, 52324), (50, 52327),

Gene: CapnMurica\_78 Start: 52343, Stop: 52633, Start Num: 17

Candidate Starts for CapnMurica\_78:

(Start: 17 @52343 has 5 MA's), (Start: 23 @52355 has 10 MA's), (32, 52418), (35, 52448), (44, 52574), (45, 52580), (47, 52583), (48, 52595),

Gene: CastorTray\_86 Start: 52899, Stop: 53177, Start Num: 23

Candidate Starts for CastorTray\_86:

(Start: 17 @52887 has 5 MA's), (20, 52893), (Start: 23 @52899 has 10 MA's), (25, 52917), (Start: 27 @52926 has 1 MA's), (34, 52986), (35, 52992), (44, 53118), (48, 53139),

Gene: Chlochlo\_87 Start: 52195, Stop: 52539, Start Num: 21

Candidate Starts for Chlochlo\_87:

(Start: 16 @52180 has 1 MA's), (Start: 21 @52195 has 8 MA's), (39, 52354), (42, 52411), (46, 52435), (51, 52519),

Gene: Darby\_81 Start: 52415, Stop: 52666, Start Num: 27

Candidate Starts for Darby\_81:

(15, 52364), (Start: 18 @52379 has 1 MA's), (Start: 27 @52415 has 1 MA's), (28, 52418), (34, 52475), (35, 52481), (48, 52628),

Gene: DevitoJr\_82 Start: 52047, Stop: 52325, Start Num: 23

Candidate Starts for DevitoJr\_82:

(7, 51957), (11, 51999), (Start: 17 @52035 has 5 MA's), (Start: 23 @52047 has 10 MA's), (Start: 27 @52074 has 1 MA's), (28, 52077), (35, 52140), (36, 52146), (44, 52266), (47, 52275), (48, 52287),

Gene: Dinallo\_76 Start: 52586, Stop: 52876, Start Num: 17

Candidate Starts for Dinallo\_76:

(Start: 17 @52586 has 5 MA's), (Start: 23 @52598 has 10 MA's), (32, 52661), (35, 52691), (44, 52817), (47, 52826), (48, 52838),

Gene: ElephantMan\_82 Start: 52676, Stop: 53050, Start Num: 23

Candidate Starts for ElephantMan\_82:

(1, 52529), (5, 52571), (7, 52580), (19, 52664), (20, 52670), (Start: 23 @52676 has 10 MA's), (25, 52703), (31, 52748), (37, 52799), (38, 52835),

Gene: Giantsbane\_87 Start: 51659, Stop: 51931, Start Num: 21

Candidate Starts for Giantsbane\_87:

(Start: 16 @51644 has 1 MA's), (Start: 21 @51659 has 8 MA's), (29, 51704), (40, 51842),

Gene: Inked\_87 Start: 52710, Stop: 52988, Start Num: 23

Candidate Starts for Inked\_87:

(Start: 23 @52710 has 10 MA's), (28, 52740), (32, 52773), (43, 52923), (44, 52929), (48, 52950),

Gene: LilHuddy\_85 Start: 52109, Stop: 52459, Start Num: 21

Candidate Starts for LilHuddy\_85:

(8, 52022), (9, 52025), (Start: 21 @52109 has 8 MA's), (29, 52157), (42, 52325), (49, 52400),

Gene: LucySwiss\_84 Start: 52293, Stop: 52580, Start Num: 18

Candidate Starts for LucySwiss\_84:

(15, 52278), (Start: 18 @52293 has 1 MA's), (22, 52302), (Start: 27 @52329 has 1 MA's), (28, 52332), (34, 52389), (35, 52395), (44, 52521), (48, 52542),

Gene: Makai\_86 Start: 52779, Stop: 53117, Start Num: 21

Candidate Starts for Makai\_86:

(6, 52683), (Start: 21 @52779 has 8 MA's), (30, 52842), (31, 52845), (41, 52986), (51, 53097),

Gene: MediumFry\_78 Start: 51487, Stop: 51777, Start Num: 17

Candidate Starts for MediumFry\_78:

(Start: 17 @51487 has 5 MA's), (Start: 23 @51499 has 10 MA's), (33, 51568), (40, 51685), (43, 51712), (44, 51718), (48, 51739),

Gene: MiniBagel\_82 Start: 52344, Stop: 52637, Start Num: 17

Candidate Starts for MiniBagel\_82:

(13, 52326), (Start: 17 @52344 has 5 MA's), (20, 52350), (Start: 23 @52356 has 10 MA's), (32, 52419), (35, 52449), (44, 52575), (47, 52584), (48, 52596),

Gene: Nightmare\_84 Start: 52989, Stop: 53279, Start Num: 17

Candidate Starts for Nightmare\_84:

(7, 52911), (11, 52953), (Start: 17 @52989 has 5 MA's), (Start: 23 @53001 has 10 MA's), (Start: 27 @53028 has 1 MA's), (28, 53031), (35, 53094), (36, 53100), (44, 53220), (47, 53229), (48, 53241),

Gene: Niktson\_82 Start: 52676, Stop: 53050, Start Num: 23

Candidate Starts for Niktson\_82:

(1, 52529), (5, 52571), (7, 52580), (19, 52664), (20, 52670), (Start: 23 @52676 has 10 MA's), (25, 52703), (31, 52748), (37, 52799), (38, 52835),

Gene: Nivinsha\_84 Start: 52198, Stop: 52449, Start Num: 27

Candidate Starts for Nivinsha\_84:

(Start: 17 @52159 has 5 MA's), (20, 52165), (Start: 23 @52171 has 10 MA's), (26, 52195), (Start: 27 @52198 has 1 MA's), (28, 52201), (34, 52258), (35, 52264), (44, 52390), (48, 52411),

Gene: Phaby\_85 Start: 52012, Stop: 52362, Start Num: 21

Candidate Starts for Phaby\_85:

(Start: 21 @52012 has 8 MA's), (29, 52060), (39, 52171), (49, 52303),

Gene: ScienceWizSam\_84 Start: 52220, Stop: 52498, Start Num: 23

Candidate Starts for ScienceWizSam\_84:

(7, 52130), (11, 52172), (Start: 17 @52208 has 5 MA's), (Start: 23 @52220 has 10 MA's), (Start: 27 @52247 has 1 MA's), (28, 52250), (35, 52313), (36, 52319), (44, 52439), (47, 52448), (48, 52460),

Gene: Shepard\_86 Start: 52221, Stop: 52586, Start Num: 16

Candidate Starts for Shepard\_86:

(Start: 16 @52221 has 1 MA's), (Start: 21 @52236 has 8 MA's), (29, 52284), (42, 52452), (49, 52527),

Gene: Synopsis\_78 Start: 52058, Stop: 52336, Start Num: 23

Candidate Starts for Synopsis\_78:

(7, 51968), (11, 52010), (Start: 17 @52046 has 5 MA's), (Start: 23 @52058 has 10 MA's), (Start: 27 @52085 has 1 MA's), (28, 52088), (35, 52151), (36, 52157), (44, 52277), (47, 52286), (48, 52298),

Gene: Tatanka\_76 Start: 51974, Stop: 52252, Start Num: 23

Candidate Starts for Tatanka\_76:

(13, 51944), (20, 51968), (Start: 23 @51974 has 10 MA's), (35, 52067), (44, 52193), (47, 52202), (48, 52214),

Gene: Tenno\_81 Start: 52377, Stop: 52667, Start Num: 17

Candidate Starts for Tenno\_81:

(Start: 17 @52377 has 5 MA's), (Start: 23 @52389 has 10 MA's), (32, 52452), (35, 52482), (44, 52608), (47, 52617), (48, 52629),

Gene: Tipton\_86 Start: 52473, Stop: 52817, Start Num: 21

Candidate Starts for Tipton\_86:

(8, 52386), (9, 52389), (Start: 21 @52473 has 8 MA's), (29, 52521), (39, 52632), (42, 52689), (46, 52713), (51, 52797),

Gene: Tokki\_92 Start: 52593, Stop: 52937, Start Num: 21

Candidate Starts for Tokki\_92:

(Start: 16 @52578 has 1 MA's), (Start: 21 @52593 has 8 MA's), (29, 52641), (39, 52752), (51, 52917),

Gene: Truckee\_83 Start: 52472, Stop: 52810, Start Num: 21

Candidate Starts for Truckee\_83:

(6, 52376), (Start: 21 @52472 has 8 MA's), (30, 52535), (31, 52538), (41, 52679), (51, 52790),

Gene: Trustiboi\_81 Start: 52407, Stop: 52685, Start Num: 23

Candidate Starts for Trustiboi\_81:

(1, 52266), (5, 52308), (10, 52356), (Start: 17 @52395 has 5 MA's), (20, 52401), (Start: 23 @52407 has 10 MA's), (25, 52425), (Start: 27 @52434 has 1 MA's), (28, 52437), (34, 52494), (35, 52500), (44, 52626), (48, 52647),

Gene: Westerlin\_81 Start: 53658, Stop: 53912, Start Num: 27

Candidate Starts for Westerlin\_81:

(14, 53607), (Start: 17 @53622 has 5 MA's), (Start: 27 @53658 has 1 MA's), (35, 53724), (36, 53730), (44, 53850), (47, 53859), (48, 53871),

Gene: Zippen\_88 Start: 52752, Stop: 53030, Start Num: 23

Candidate Starts for Zippen\_88:

(Start: 23 @52752 has 10 MA's), (28, 52782), (32, 52815), (43, 52965), (44, 52971), (48, 52992),