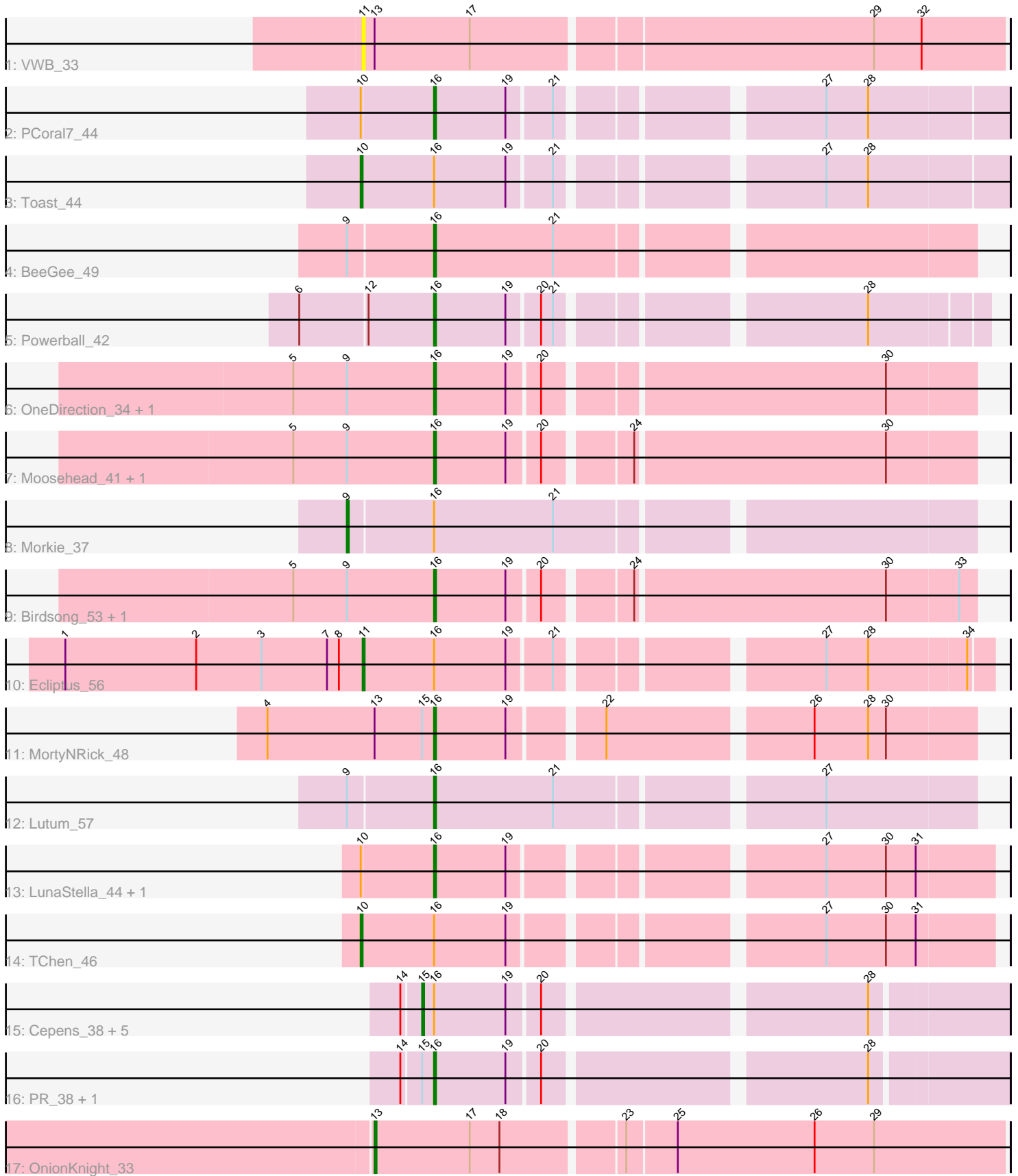


Pham 305230



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 305230 Report

This analysis was run 06/08/26 on database version 649.

WARNING: Pham size does not match number of genes in report. Either unphamerated genes have been added (by you) or starterator has removed genes due to invalid start codon.

Pham number 305230 has 27 members, 1 are drafts.

Phages represented in each track:

- Track 1 : VWB\_33
- Track 2 : PCoral7\_44
- Track 3 : Toast\_44
- Track 4 : BeeGee\_49
- Track 5 : Powerball\_42
- Track 6 : OneDirection\_34, BotCity\_55
- Track 7 : Moosehead\_41, Phabuloso\_54
- Track 8 : Morkie\_37
- Track 9 : Birdsong\_53, Asapag\_53
- Track 10 : Ecliptus\_56
- Track 11 : MortyNRick\_48
- Track 12 : Lutum\_57
- Track 13 : LunaStella\_44, MooMoo\_43
- Track 14 : TChen\_46
- Track 15 : Cepens\_38, Megabear\_38, Jeon\_38, GodPhather\_39, Taptic\_38, Argie\_39
- Track 16 : PR\_38, D12\_37
- Track 17 : OnionKnight\_33

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

The start number called the most often in the published annotations is 16, it was called in 15 of the 26 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Asapag\_53, BeeGee\_49, Birdsong\_53, BotCity\_55, D12\_37, LunaStella\_44, Lutum\_57, MooMoo\_43, Moosehead\_41, MortyNRick\_48, OneDirection\_34, PCoral7\_44, PR\_38, Phabuloso\_54, Powerball\_42,

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

- Argie\_39, Cepens\_38, Ecliptus\_56, GodPhather\_39, Jeon\_38, Megabear\_38, Morkie\_37, TChen\_46, Taptic\_38, Toast\_44,

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

- OnionKnight\_33, VWB\_33,

### Summary by start number:

Start 9:

- Found in 9 of 27 ( 33.3% ) of genes in pham
- Manual Annotations of this start: 1 of 26
- Called 11.1% of time when present
- Phage (with cluster) where this start called: Morkie\_37 (DH),

Start 10:

- Found in 5 of 27 ( 18.5% ) of genes in pham
- Manual Annotations of this start: 2 of 26
- Called 40.0% of time when present
- Phage (with cluster) where this start called: TChen\_46 (F4), Toast\_44 (CV),

Start 11:

- Found in 2 of 27 ( 7.4% ) of genes in pham
- Manual Annotations of this start: 1 of 26
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Ecliptus\_56 (DN), VWB\_33 (BA),

Start 13:

- Found in 3 of 27 ( 11.1% ) of genes in pham
- Manual Annotations of this start: 1 of 26
- Called 33.3% of time when present
- Phage (with cluster) where this start called: OnionKnight\_33 (singleton),

Start 15:

- Found in 9 of 27 ( 33.3% ) of genes in pham
- Manual Annotations of this start: 6 of 26
- Called 66.7% of time when present
- Phage (with cluster) where this start called: Argie\_39 (W), Cepens\_38 (W), GodPhather\_39 (W), Jeon\_38 (W), Megabear\_38 (W), Taptic\_38 (W),

Start 16:

- Found in 25 of 27 ( 92.6% ) of genes in pham
- Manual Annotations of this start: 15 of 26
- Called 60.0% of time when present
- Phage (with cluster) where this start called: Asapag\_53 (DN1), BeeGee\_49 (CY5), Birdsong\_53 (DN), BotCity\_55 (DN), D12\_37 (W), LunaStella\_44 (F4), Lutum\_57 (DN1), MooMoo\_43 (singleton), Moosehead\_41 (CZ6), MortyNRick\_48 (DN), OneDirection\_34 (CZ6), PCoral7\_44 (CV), PR\_38 (W), Phabuloso\_54 (DN1), Powerball\_42 (CZ4),

### Summary by clusters:

There are 11 clusters represented in this pham: DN, singleton, F4, DH, CY5, CZ6, CZ4, DN1, W, CV, BA,

Info for manual annotations of cluster CV:

- Start number 10 was manually annotated 1 time for cluster CV.
- Start number 16 was manually annotated 1 time for cluster CV.

Info for manual annotations of cluster CY5:

- Start number 16 was manually annotated 1 time for cluster CY5.

Info for manual annotations of cluster CZ4:

- Start number 16 was manually annotated 1 time for cluster CZ4.

Info for manual annotations of cluster CZ6:

- Start number 16 was manually annotated 2 times for cluster CZ6.

Info for manual annotations of cluster DH:

- Start number 9 was manually annotated 1 time for cluster DH.

Info for manual annotations of cluster DN:

- Start number 11 was manually annotated 1 time for cluster DN.
- Start number 16 was manually annotated 3 times for cluster DN.

Info for manual annotations of cluster DN1:

- Start number 16 was manually annotated 3 times for cluster DN1.

Info for manual annotations of cluster F4:

- Start number 10 was manually annotated 1 time for cluster F4.
- Start number 16 was manually annotated 1 time for cluster F4.

Info for manual annotations of cluster W:

- Start number 15 was manually annotated 6 times for cluster W.
- Start number 16 was manually annotated 2 times for cluster W.

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

Gene: Argie\_39 Start: 38767, Stop: 39039, Start Num: 15

Candidate Starts for Argie\_39:

(14, 38758), (Start: 15 @38767 has 6 MA's), (Start: 16 @38773 has 15 MA's), (19, 38809), (20, 38824), (28, 38974),

Gene: Asapag\_53 Start: 35734, Stop: 35991, Start Num: 16

Candidate Starts for Asapag\_53:

(5, 35665), (Start: 9 @35692 has 1 MA's), (Start: 16 @35734 has 15 MA's), (19, 35770), (20, 35785), (24, 35824), (30, 35947), (33, 35983),

Gene: BeeGee\_49 Start: 36014, Stop: 36271, Start Num: 16

Candidate Starts for BeeGee\_49:

(Start: 9 @35972 has 1 MA's), (Start: 16 @36014 has 15 MA's), (21, 36074),

Gene: Birdsong\_53 Start: 35955, Stop: 36212, Start Num: 16

Candidate Starts for Birdsong\_53:

(5, 35886), (Start: 9 @35913 has 1 MA's), (Start: 16 @35955 has 15 MA's), (19, 35991), (20, 36006), (24, 36045), (30, 36168), (33, 36204),

Gene: BotCity\_55 Start: 36501, Stop: 36758, Start Num: 16

Candidate Starts for BotCity\_55:

(5, 36432), (Start: 9 @36459 has 1 MA's), (Start: 16 @36501 has 15 MA's), (19, 36537), (20, 36552), (30, 36714),

Gene: Cepens\_38 Start: 38482, Stop: 38754, Start Num: 15

Candidate Starts for Cepens\_38:

(14, 38473), (Start: 15 @38482 has 6 MA's), (Start: 16 @38488 has 15 MA's), (19, 38524), (20, 38539), (28, 38689),

Gene: D12\_37 Start: 39036, Stop: 39302, Start Num: 16

Candidate Starts for D12\_37:

(14, 39021), (Start: 15 @39030 has 6 MA's), (Start: 16 @39036 has 15 MA's), (19, 39072), (20, 39087), (28, 39237),

Gene: Ecliptus\_56 Start: 37774, Stop: 38064, Start Num: 11

Candidate Starts for Ecliptus\_56:

(1, 37624), (2, 37690), (3, 37723), (7, 37756), (8, 37762), (Start: 11 @37774 has 1 MA's), (Start: 16 @37810 has 15 MA's), (19, 37846), (21, 37867), (27, 37984), (28, 38005), (34, 38053),

Gene: GodPhather\_39 Start: 39246, Stop: 39518, Start Num: 15

Candidate Starts for GodPhather\_39:

(14, 39237), (Start: 15 @39246 has 6 MA's), (Start: 16 @39252 has 15 MA's), (19, 39288), (20, 39303), (28, 39453),

Gene: Jeon\_38 Start: 38988, Stop: 39260, Start Num: 15

Candidate Starts for Jeon\_38:

(14, 38979), (Start: 15 @38988 has 6 MA's), (Start: 16 @38994 has 15 MA's), (19, 39030), (20, 39045), (28, 39195),

Gene: LunaStella\_44 Start: 33802, Stop: 34059, Start Num: 16

Candidate Starts for LunaStella\_44:

(Start: 10 @33766 has 2 MA's), (Start: 16 @33802 has 15 MA's), (19, 33838), (27, 33976), (30, 34006), (31, 34021),

Gene: Lutum\_57 Start: 36995, Stop: 37252, Start Num: 16

Candidate Starts for Lutum\_57:

(Start: 9 @36953 has 1 MA's), (Start: 16 @36995 has 15 MA's), (21, 37055), (27, 37178),

Gene: Megabear\_38 Start: 38403, Stop: 38675, Start Num: 15

Candidate Starts for Megabear\_38:

(14, 38394), (Start: 15 @38403 has 6 MA's), (Start: 16 @38409 has 15 MA's), (19, 38445), (20, 38460), (28, 38610),

Gene: MooMoo\_43 Start: 34078, Stop: 34335, Start Num: 16

Candidate Starts for MooMoo\_43:

(Start: 10 @34042 has 2 MA's), (Start: 16 @34078 has 15 MA's), (19, 34114), (27, 34252), (30, 34282), (31, 34297),

Gene: Moosehead\_41 Start: 28984, Stop: 29241, Start Num: 16

Candidate Starts for Moosehead\_41:

(5, 28915), (Start: 9 @28942 has 1 MA's), (Start: 16 @28984 has 15 MA's), (19, 29020), (20, 29035), (24, 29074), (30, 29197),

Gene: Morkie\_37 Start: 28817, Stop: 29116, Start Num: 9

Candidate Starts for Morkie\_37:

(Start: 9 @28817 has 1 MA's), (Start: 16 @28859 has 15 MA's), (21, 28919),

Gene: MortyNRick\_48 Start: 36007, Stop: 36261, Start Num: 16

Candidate Starts for MortyNRick\_48:

(4, 35923), (Start: 13 @35977 has 1 MA's), (Start: 15 @36001 has 6 MA's), (Start: 16 @36007 has 15 MA's), (19, 36043), (22, 36085), (26, 36181), (28, 36208), (30, 36217),

Gene: OneDirection\_34 Start: 27370, Stop: 27627, Start Num: 16

Candidate Starts for OneDirection\_34:

(5, 27301), (Start: 9 @27328 has 1 MA's), (Start: 16 @27370 has 15 MA's), (19, 27406), (20, 27421), (30, 27583),

Gene: OnionKnight\_33 Start: 25282, Stop: 25590, Start Num: 13

Candidate Starts for OnionKnight\_33:

(Start: 13 @25282 has 1 MA's), (17, 25330), (18, 25345), (23, 25402), (25, 25426), (26, 25495), (29, 25525),

Gene: PCoral7\_44 Start: 34911, Stop: 35174, Start Num: 16

Candidate Starts for PCoral7\_44:

(Start: 10 @34875 has 2 MA's), (Start: 16 @34911 has 15 MA's), (19, 34947), (21, 34968), (27, 35085), (28, 35106),

Gene: PR\_38 Start: 39013, Stop: 39279, Start Num: 16

Candidate Starts for PR\_38:

(14, 38998), (Start: 15 @39007 has 6 MA's), (Start: 16 @39013 has 15 MA's), (19, 39049), (20, 39064), (28, 39214),

Gene: Phabuloso\_54 Start: 36332, Stop: 36589, Start Num: 16

Candidate Starts for Phabuloso\_54:

(5, 36263), (Start: 9 @36290 has 1 MA's), (Start: 16 @36332 has 15 MA's), (19, 36368), (20, 36383), (24, 36422), (30, 36545),

Gene: Powerball\_42 Start: 33050, Stop: 33301, Start Num: 16

Candidate Starts for Powerball\_42:

(6, 32984), (12, 33017), (Start: 16 @33050 has 15 MA's), (19, 33086), (20, 33101), (21, 33107), (28, 33245),

Gene: TChen\_46 Start: 35717, Stop: 36010, Start Num: 10

Candidate Starts for TChen\_46:

(Start: 10 @35717 has 2 MA's), (Start: 16 @35753 has 15 MA's), (19, 35789), (27, 35927), (30, 35957), (31, 35972),

Gene: Taptic\_38 Start: 38403, Stop: 38675, Start Num: 15

Candidate Starts for Taptic\_38:

(14, 38394), (Start: 15 @38403 has 6 MA's), (Start: 16 @38409 has 15 MA's), (19, 38445), (20, 38460), (28, 38610),

Gene: Toast\_44 Start: 34875, Stop: 35174, Start Num: 10

Candidate Starts for Toast\_44:

(Start: 10 @34875 has 2 MA's), (Start: 16 @34911 has 15 MA's), (19, 34947), (21, 34968), (27, 35085), (28, 35106),

Gene: VWB\_33 Start: 28495, Stop: 28809, Start Num: 11

Candidate Starts for VWB\_33:

(Start: 11 @28495 has 1 MA's), (Start: 13 @28501 has 1 MA's), (17, 28549), (29, 28744), (32, 28768),