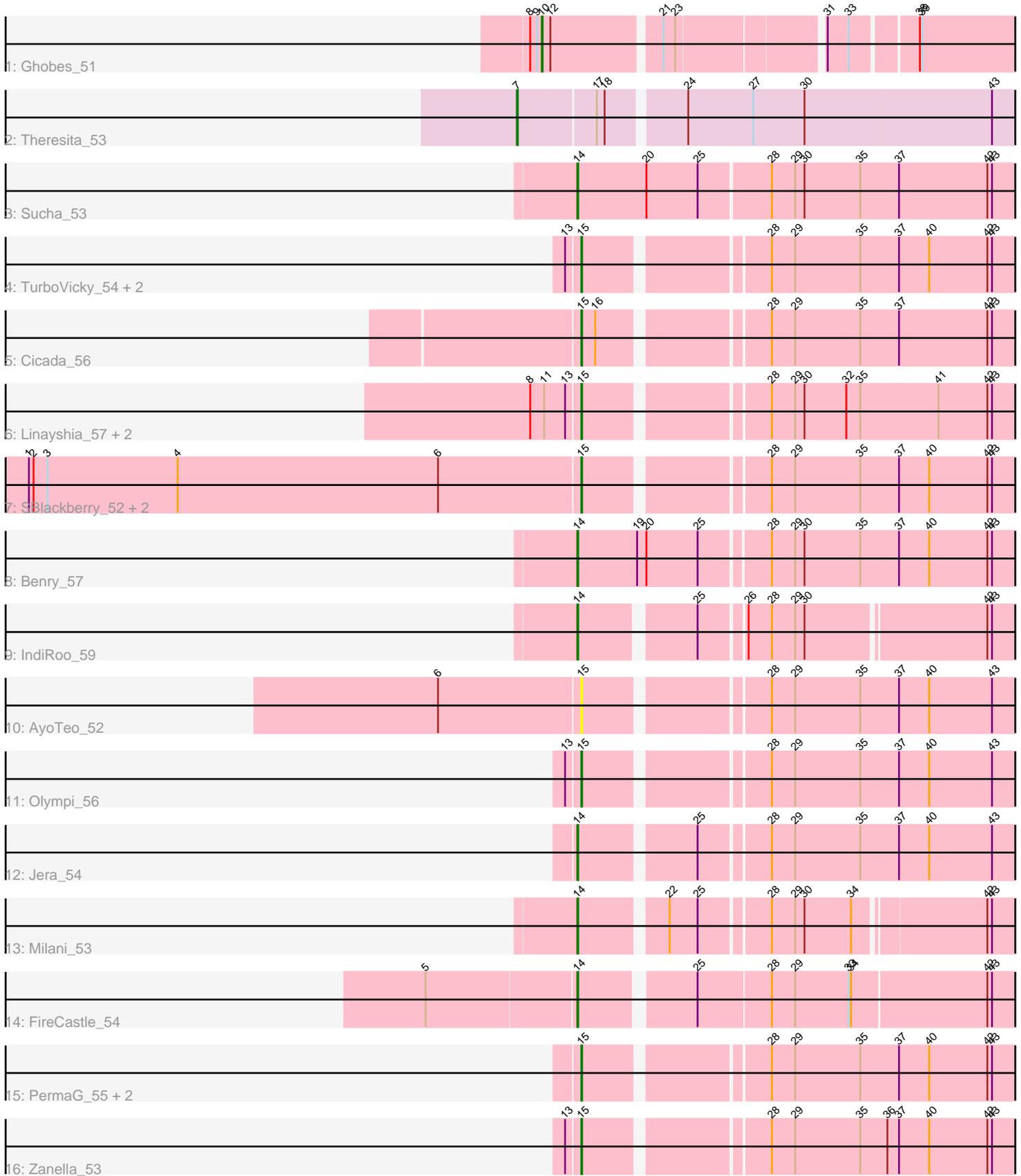


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Note: Tracks are now grouped by subcluster and scaled. Switching in subcluster is indicated by changes in track color. Track scale is now set by default to display the region 30 bp upstream of start 1 to 30 bp downstream of the last possible start. 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 284146 Report

This analysis was run 02/23/26 on database version 636.

Pham number 284146 has 24 members, 4 are drafts.

Phages represented in each track:

- Track 1 : Ghobes\_51
- Track 2 : Theresita\_53
- Track 3 : Sucha\_53
- Track 4 : TurboVicky\_54, Rootkit7\_52, Alove\_52
- Track 5 : Cicada\_56
- Track 6 : Linayshia\_57, Rasovi\_57, Htur\_57
- Track 7 : SBlackberry\_52, Labella\_54, Typher\_54
- Track 8 : Benry\_57
- Track 9 : IndiRoo\_59
- Track 10 : AyoTeo\_52
- Track 11 : Olympi\_56
- Track 12 : Jera\_54
- Track 13 : Milani\_53
- Track 14 : FireCastle\_54
- Track 15 : PermaG\_55, Goodman\_55, Johann\_55
- Track 16 : Zanella\_53

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

The start number called the most often in the published annotations is 15, it was called in 12 of the 20 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Alove\_52, AyoTeo\_52, Cicada\_56, Goodman\_55, Htur\_57, Johann\_55, Labella\_54, Linayshia\_57, Olympi\_56, PermaG\_55, Rasovi\_57, Rootkit7\_52, SBlackberry\_52, TurboVicky\_54, Typher\_54, Zanella\_53,

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

- 

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

- Benry\_57, FireCastle\_54, Ghobes\_51, IndiRoo\_59, Jera\_54, Milani\_53, Sucha\_53, Theresita\_53,

## Summary by start number:

### Start 7:

- Found in 1 of 24 ( 4.2% ) of genes in pham
- Manual Annotations of this start: 1 of 20
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Theresita\_53 (EA7),

### Start 10:

- Found in 1 of 24 ( 4.2% ) of genes in pham
- Manual Annotations of this start: 1 of 20
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Ghobes\_51 (DA),

### Start 14:

- Found in 6 of 24 ( 25.0% ) of genes in pham
- Manual Annotations of this start: 6 of 20
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Benry\_57 (EJ), FireCastle\_54 (EJ), IndiRoo\_59 (EJ), Jera\_54 (EJ), Milani\_53 (EJ), Sucha\_53 (EJ),

### Start 15:

- Found in 16 of 24 ( 66.7% ) of genes in pham
- Manual Annotations of this start: 12 of 20
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Alove\_52 (EJ), AyoTeo\_52 (EJ), Cicada\_56 (EJ), Goodman\_55 (EJ), Htur\_57 (EJ), Johann\_55 (EJ), Labella\_54 (EJ), Linayshia\_57 (EJ), Olympi\_56 (EJ), PermaG\_55 (EJ), Rasovi\_57 (EJ), Rootkit7\_52 (EJ), SBlackberry\_52 (EJ), TurboVicky\_54 (EJ), Typher\_54 (EJ), Zanella\_53 (EJ),

## Summary by clusters:

There are 3 clusters represented in this pham: DA, EA7, EJ,

Info for manual annotations of cluster DA:

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

Info for manual annotations of cluster EA7:

- Start number 7 was manually annotated 1 time for cluster EA7.

Info for manual annotations of cluster EJ:

- Start number 14 was manually annotated 6 times for cluster EJ.
- Start number 15 was manually annotated 12 times for cluster EJ.

## Gene Information:

Gene: Alove\_52 Start: 39317, Stop: 39853, Start Num: 15

Candidate Starts for Alove\_52:

(13, 39305), (Start: 15 @39317 has 12 MA's), (28, 39530), (29, 39560), (35, 39644), (37, 39692), (40, 39731), (42, 39806), (43, 39812),

Gene: AyoTeo\_52 Start: 39057, Stop: 39593, Start Num: 15

Candidate Starts for AyoTeo\_52:

(6, 38880), (Start: 15 @39057 has 12 MA's), (28, 39270), (29, 39300), (35, 39384), (37, 39432), (40, 39471), (43, 39552),

Gene: Benry\_57 Start: 38929, Stop: 39486, Start Num: 14

Candidate Starts for Benry\_57:

(Start: 14 @38929 has 6 MA's), (19, 39004), (20, 39016), (25, 39082), (28, 39163), (29, 39193), (30, 39205), (35, 39277), (37, 39325), (40, 39364), (42, 39439), (43, 39445),

Gene: Cicada\_56 Start: 39535, Stop: 40071, Start Num: 15

Candidate Starts for Cicada\_56:

(Start: 15 @39535 has 12 MA's), (16, 39553), (28, 39748), (29, 39778), (35, 39862), (37, 39910), (42, 40024), (43, 40030),

Gene: FireCastle\_54 Start: 39984, Stop: 40526, Start Num: 14

Candidate Starts for FireCastle\_54:

(5, 39795), (Start: 14 @39984 has 6 MA's), (25, 40116), (28, 40206), (29, 40236), (33, 40305), (34, 40308), (42, 40479), (43, 40485),

Gene: Ghobes\_51 Start: 41770, Stop: 42333, Start Num: 10

Candidate Starts for Ghobes\_51:

(8, 41755), (9, 41764), (Start: 10 @41770 has 1 MA's), (12, 41779), (21, 41911), (23, 41926), (31, 42097), (33, 42124), (38, 42202), (39, 42205),

Gene: Goodman\_55 Start: 39551, Stop: 40087, Start Num: 15

Candidate Starts for Goodman\_55:

(Start: 15 @39551 has 12 MA's), (28, 39764), (29, 39794), (35, 39878), (37, 39926), (40, 39965), (42, 40040), (43, 40046),

Gene: Htur\_57 Start: 40207, Stop: 40743, Start Num: 15

Candidate Starts for Htur\_57:

(8, 40150), (11, 40168), (13, 40195), (Start: 15 @40207 has 12 MA's), (28, 40420), (29, 40450), (30, 40462), (32, 40516), (35, 40534), (41, 40633), (42, 40696), (43, 40702),

Gene: IndiRoo\_59 Start: 39328, Stop: 39852, Start Num: 14

Candidate Starts for IndiRoo\_59:

(Start: 14 @39328 has 6 MA's), (25, 39460), (26, 39511), (28, 39541), (29, 39571), (30, 39583), (42, 39805), (43, 39811),

Gene: Jera\_54 Start: 38229, Stop: 38768, Start Num: 14

Candidate Starts for Jera\_54:

(Start: 14 @38229 has 6 MA's), (25, 38364), (28, 38445), (29, 38475), (35, 38559), (37, 38607), (40, 38646), (43, 38727),

Gene: Johann\_55 Start: 39551, Stop: 40087, Start Num: 15

Candidate Starts for Johann\_55:

(Start: 15 @39551 has 12 MA's), (28, 39764), (29, 39794), (35, 39878), (37, 39926), (40, 39965), (42, 40040), (43, 40046),

Gene: Labella\_54 Start: 39053, Stop: 39589, Start Num: 15

Candidate Starts for Labella\_54:

(1, 38348), (2, 38354), (3, 38372), (4, 38540), (6, 38876), (Start: 15 @39053 has 12 MA's), (28, 39266), (29, 39296), (35, 39380), (37, 39428), (40, 39467), (42, 39542), (43, 39548),

Gene: Linayshia\_57 Start: 40174, Stop: 40710, Start Num: 15

Candidate Starts for Linayshia\_57:

(8, 40117), (11, 40135), (13, 40162), (Start: 15 @40174 has 12 MA's), (28, 40387), (29, 40417), (30, 40429), (32, 40483), (35, 40501), (41, 40600), (42, 40663), (43, 40669),

Gene: Milani\_53 Start: 39154, Stop: 39678, Start Num: 14

Candidate Starts for Milani\_53:

(Start: 14 @39154 has 6 MA's), (22, 39253), (25, 39289), (28, 39370), (29, 39400), (30, 39412), (34, 39472), (42, 39631), (43, 39637),

Gene: Olympi\_56 Start: 39269, Stop: 39805, Start Num: 15

Candidate Starts for Olympi\_56:

(13, 39257), (Start: 15 @39269 has 12 MA's), (28, 39482), (29, 39512), (35, 39596), (37, 39644), (40, 39683), (43, 39764),

Gene: PermaG\_55 Start: 39476, Stop: 40012, Start Num: 15

Candidate Starts for PermaG\_55:

(Start: 15 @39476 has 12 MA's), (28, 39689), (29, 39719), (35, 39803), (37, 39851), (40, 39890), (42, 39965), (43, 39971),

Gene: Rasovi\_57 Start: 40207, Stop: 40743, Start Num: 15

Candidate Starts for Rasovi\_57:

(8, 40150), (11, 40168), (13, 40195), (Start: 15 @40207 has 12 MA's), (28, 40420), (29, 40450), (30, 40462), (32, 40516), (35, 40534), (41, 40633), (42, 40696), (43, 40702),

Gene: Rootkit7\_52 Start: 39317, Stop: 39853, Start Num: 15

Candidate Starts for Rootkit7\_52:

(13, 39305), (Start: 15 @39317 has 12 MA's), (28, 39530), (29, 39560), (35, 39644), (37, 39692), (40, 39731), (42, 39806), (43, 39812),

Gene: SBlackberry\_52 Start: 39277, Stop: 39813, Start Num: 15

Candidate Starts for SBlackberry\_52:

(1, 38572), (2, 38578), (3, 38596), (4, 38764), (6, 39100), (Start: 15 @39277 has 12 MA's), (28, 39490), (29, 39520), (35, 39604), (37, 39652), (40, 39691), (42, 39766), (43, 39772),

Gene: Sucha\_53 Start: 38354, Stop: 38917, Start Num: 14

Candidate Starts for Sucha\_53:

(Start: 14 @38354 has 6 MA's), (20, 38441), (25, 38507), (28, 38594), (29, 38624), (30, 38636), (35, 38708), (37, 38756), (42, 38870), (43, 38876),

Gene: Theresita\_53 Start: 37969, Stop: 38592, Start Num: 7

Candidate Starts for Theresita\_53:

(Start: 7 @37969 has 1 MA's), (17, 38062), (18, 38071), (24, 38161), (27, 38245), (30, 38311), (43, 38551),

Gene: TurboVicky\_54 Start: 39494, Stop: 40030, Start Num: 15

Candidate Starts for TurboVicky\_54:

(13, 39482), (Start: 15 @39494 has 12 MA's), (28, 39707), (29, 39737), (35, 39821), (37, 39869), (40, 39908), (42, 39983), (43, 39989),

Gene: Typher\_54 Start: 39053, Stop: 39589, Start Num: 15

Candidate Starts for Typher\_54:

(1, 38348), (2, 38354), (3, 38372), (4, 38540), (6, 38876), (Start: 15 @39053 has 12 MA's), (28, 39266), (29, 39296), (35, 39380), (37, 39428), (40, 39467), (42, 39542), (43, 39548),

Gene: Zanella\_53 Start: 39297, Stop: 39833, Start Num: 15

Candidate Starts for Zanella\_53:

(13, 39285), (Start: 15 @39297 has 12 MA's), (28, 39510), (29, 39540), (35, 39624), (36, 39657), (37, 39672), (40, 39711), (42, 39786), (43, 39792),