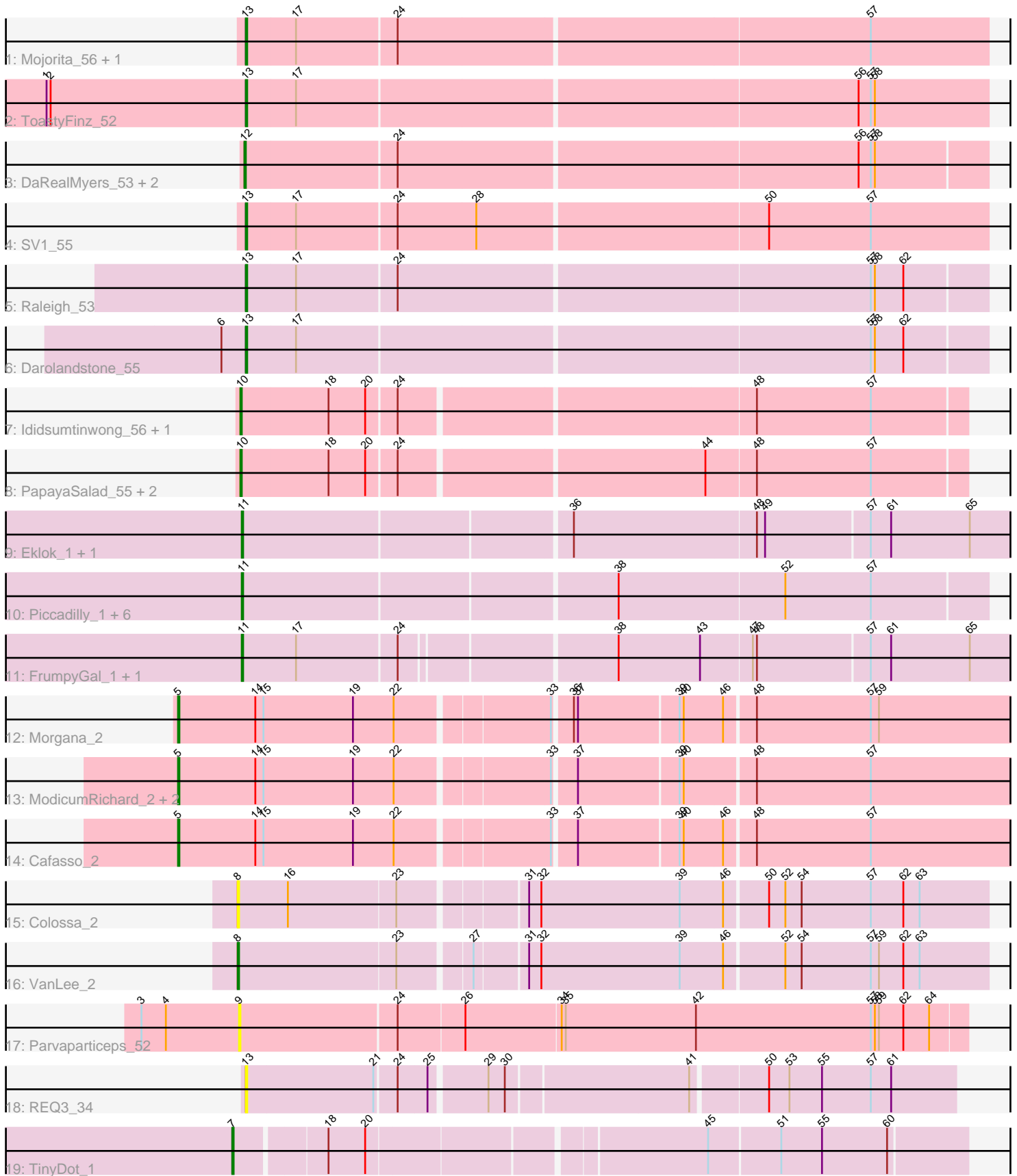


Pham 294916



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 294916 Report

This analysis was run 04/18/26 on database version 643.

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 294916 has 35 members, 4 are drafts.

Phages represented in each track:

- Track 1 : Mojorita\_56, Picard\_56
- Track 2 : ToastyFinz\_52
- Track 3 : DaRealMyers\_53, SoJo\_53, Tubberson\_53
- Track 4 : SV1\_55
- Track 5 : Raleigh\_53
- Track 6 : Darolandstone\_55
- Track 7 : Ididsumtinwong\_56, Bioscum\_55
- Track 8 : PapayaSalad\_55, Austintatious\_53, Lishka\_53
- Track 9 : Eklok\_1, AxeJC\_1
- Track 10 : Piccadilly\_1, Ignacio\_1, HFrancette\_1, ArizonaGT\_1, Vondra\_1, Cumberbatch\_1, Schlegelian\_1
- Track 11 : FrumpyGal\_1, Eastland\_1
- Track 12 : Morgana\_2
- Track 13 : ModicumRichard\_2, ObLaDi\_2, Aleemily\_2
- Track 14 : Cafasso\_2
- Track 15 : Colossa\_2
- Track 16 : VanLee\_2
- Track 17 : Parvaparticeps\_52
- Track 18 : REQ3\_34
- Track 19 : TinyDot\_1

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

The start number called the most often in the published annotations is 11, it was called in 11 of the 31 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- ArizonaGT\_1, AxeJC\_1, Cumberbatch\_1, Eastland\_1, Eklok\_1, FrumpyGal\_1, HFrancette\_1, Ignacio\_1, Piccadilly\_1, Schlegelian\_1, Vondra\_1,

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

- 

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

- Aleemily\_2, Austintatious\_53, Bioscum\_55, Cafasso\_2, Colossa\_2, DaRealMyers\_53, Darolandstone\_55, Ididsumtinwong\_56, Lishka\_53, ModicumRichard\_2, Mojorita\_56, Morgana\_2, ObLaDi\_2, PapayaSalad\_55, Parvuparticeps\_52, Picard\_56, REQ3\_34, Raleigh\_53, SV1\_55, SoJo\_53, TinyDot\_1, ToastyFinz\_52, Tubberson\_53, VanLee\_2,

### Summary by start number:

Start 5:

- Found in 5 of 35 ( 14.3% ) of genes in pham
- Manual Annotations of this start: 5 of 31
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Aleemily\_2 (DZ), Cafasso\_2 (DZ), ModicumRichard\_2 (DZ), Morgana\_2 (DZ), ObLaDi\_2 (DZ),

Start 7:

- Found in 1 of 35 ( 2.9% ) of genes in pham
- Manual Annotations of this start: 1 of 31
- Called 100.0% of time when present
- Phage (with cluster) where this start called: TinyDot\_1 (singleton),

Start 8:

- Found in 2 of 35 ( 5.7% ) of genes in pham
- Manual Annotations of this start: 1 of 31
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Colossa\_2 (KA), VanLee\_2 (KA),

Start 9:

- Found in 1 of 35 ( 2.9% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Parvuparticeps\_52 (UNK),

Start 10:

- Found in 5 of 35 ( 14.3% ) of genes in pham
- Manual Annotations of this start: 5 of 31
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Austintatious\_53 (BC3), Bioscum\_55 (BC3), Ididsumtinwong\_56 (BC3), Lishka\_53 (BC3), PapayaSalad\_55 (BC3),

Start 11:

- Found in 11 of 35 ( 31.4% ) of genes in pham
- Manual Annotations of this start: 11 of 31
- Called 100.0% of time when present
- Phage (with cluster) where this start called: ArizonaGT\_1 (BP), AxeJC\_1 (BP), Cumberbatch\_1 (BP), Eastland\_1 (BP), Eklok\_1 (BP), FrumpyGal\_1 (BP), HFrancette\_1 (BP), Ignacio\_1 (BP), Piccadilly\_1 (BP), Schlegelian\_1 (BP), Vondra\_1 (BP),

Start 12:

- Found in 3 of 35 ( 8.6% ) of genes in pham
- Manual Annotations of this start: 2 of 31
- Called 100.0% of time when present
- Phage (with cluster) where this start called: DaRealMyers\_53 (BC1), SoJo\_53 (BC1), Tubberson\_53 (BC1),

Start 13:

- Found in 7 of 35 ( 20.0% ) of genes in pham
- Manual Annotations of this start: 6 of 31
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Darolandstone\_55 (BC2), Moajorita\_56 (BC1), Picard\_56 (BC1), REQ3\_34 (singleton), Raleigh\_53 (BC2), SV1\_55 (BC1), ToastyFinz\_52 (BC1),

**Summary by clusters:**

There are 8 clusters represented in this pham: singleton, KA, DZ, BP, UNK, BC1, BC2, BC3,

Info for manual annotations of cluster BC1:

- Start number 12 was manually annotated 2 times for cluster BC1.
- Start number 13 was manually annotated 4 times for cluster BC1.

Info for manual annotations of cluster BC2:

- Start number 13 was manually annotated 2 times for cluster BC2.

Info for manual annotations of cluster BC3:

- Start number 10 was manually annotated 5 times for cluster BC3.

Info for manual annotations of cluster BP:

- Start number 11 was manually annotated 11 times for cluster BP.

Info for manual annotations of cluster DZ:

- Start number 5 was manually annotated 5 times for cluster DZ.

Info for manual annotations of cluster KA:

- Start number 8 was manually annotated 1 time for cluster KA.

**Gene Information:**

Gene: Aleemily\_2 Start: 374, Stop: 967, Start Num: 5

Candidate Starts for Aleemily\_2:

(Start: 5 @374 has 5 MA's), (14, 431), (15, 437), (19, 503), (22, 533), (33, 638), (37, 653), (39, 725), (40, 728), (48, 776), (57, 860),

Gene: ArizonaGT\_1 Start: 1, Stop: 531, Start Num: 11

Candidate Starts for ArizonaGT\_1:

(Start: 11 @1 has 11 MA's), (38, 265), (52, 385), (57, 448),

Gene: Austintatious\_53 Start: 35682, Stop: 36194, Start Num: 10  
Candidate Starts for Austintatious\_53:  
(Start: 10 @35682 has 5 MA's), (18, 35745), (20, 35772), (24, 35793), (44, 36006), (48, 36042), (57, 36126),

Gene: AxeJC\_1 Start: 1, Stop: 558, Start Num: 11  
Candidate Starts for AxeJC\_1:  
(Start: 11 @1 has 11 MA's), (36, 232), (48, 364), (49, 370), (57, 445), (61, 460), (65, 517),

Gene: Bioscum\_55 Start: 37299, Stop: 37811, Start Num: 10  
Candidate Starts for Bioscum\_55:  
(Start: 10 @37299 has 5 MA's), (18, 37362), (20, 37389), (24, 37410), (48, 37659), (57, 37743),

Gene: Cafasso\_2 Start: 374, Stop: 967, Start Num: 5  
Candidate Starts for Cafasso\_2:  
(Start: 5 @374 has 5 MA's), (14, 431), (15, 437), (19, 503), (22, 533), (33, 638), (37, 653), (39, 725), (40, 728), (46, 755), (48, 776), (57, 860),

Gene: Colossa\_2 Start: 370, Stop: 900, Start Num: 8  
Candidate Starts for Colossa\_2:  
(Start: 8 @370 has 1 MA's), (16, 406), (23, 484), (31, 568), (32, 577), (39, 679), (46, 709), (50, 739), (52, 751), (54, 763), (57, 814), (62, 838), (63, 850),

Gene: Cumberbatch\_1 Start: 1, Stop: 531, Start Num: 11  
Candidate Starts for Cumberbatch\_1:  
(Start: 11 @1 has 11 MA's), (38, 265), (52, 385), (57, 448),

Gene: DaRealMyers\_53 Start: 38498, Stop: 39028, Start Num: 12  
Candidate Starts for DaRealMyers\_53:  
(Start: 12 @38498 has 2 MA's), (24, 38606), (56, 38936), (57, 38945), (58, 38948),

Gene: Darolandstone\_55 Start: 40191, Stop: 40721, Start Num: 13  
Candidate Starts for Darolandstone\_55:  
(6, 40173), (Start: 13 @40191 has 6 MA's), (17, 40227), (57, 40638), (58, 40641), (62, 40662),

Gene: Eastland\_1 Start: 1, Stop: 552, Start Num: 11  
Candidate Starts for Eastland\_1:  
(Start: 11 @1 has 11 MA's), (17, 40), (24, 112), (38, 259), (43, 319), (47, 355), (48, 358), (57, 439), (61, 454), (65, 511),

Gene: Eklok\_1 Start: 1, Stop: 558, Start Num: 11  
Candidate Starts for Eklok\_1:  
(Start: 11 @1 has 11 MA's), (36, 232), (48, 364), (49, 370), (57, 445), (61, 460), (65, 517),

Gene: FrumpyGal\_1 Start: 1, Stop: 552, Start Num: 11  
Candidate Starts for FrumpyGal\_1:  
(Start: 11 @1 has 11 MA's), (17, 40), (24, 112), (38, 259), (43, 319), (47, 355), (48, 358), (57, 439), (61, 454), (65, 511),

Gene: HFrancette\_1 Start: 1, Stop: 531, Start Num: 11  
Candidate Starts for HFrancette\_1:  
(Start: 11 @1 has 11 MA's), (38, 265), (52, 385), (57, 448),

Gene: Ididsumtinwong\_56 Start: 37286, Stop: 37798, Start Num: 10  
Candidate Starts for Ididsumtinwong\_56:  
(Start: 10 @37286 has 5 MA's), (18, 37349), (20, 37376), (24, 37397), (48, 37646), (57, 37730),

Gene: Ignacio\_1 Start: 1, Stop: 531, Start Num: 11  
Candidate Starts for Ignacio\_1:  
(Start: 11 @1 has 11 MA's), (38, 265), (52, 385), (57, 448),

Gene: Lishka\_53 Start: 35690, Stop: 36202, Start Num: 10  
Candidate Starts for Lishka\_53:  
(Start: 10 @35690 has 5 MA's), (18, 35753), (20, 35780), (24, 35801), (44, 36014), (48, 36050), (57, 36134),

Gene: ModicumRichard\_2 Start: 374, Stop: 967, Start Num: 5  
Candidate Starts for ModicumRichard\_2:  
(Start: 5 @374 has 5 MA's), (14, 431), (15, 437), (19, 503), (22, 533), (33, 638), (37, 653), (39, 725), (40, 728), (48, 776), (57, 860),

Gene: Mojorita\_56 Start: 37959, Stop: 38492, Start Num: 13  
Candidate Starts for Mojorita\_56:  
(Start: 13 @37959 has 6 MA's), (17, 37995), (24, 38067), (57, 38406),

Gene: Morgana\_2 Start: 379, Stop: 972, Start Num: 5  
Candidate Starts for Morgana\_2:  
(Start: 5 @379 has 5 MA's), (14, 436), (15, 442), (19, 508), (22, 538), (33, 643), (36, 655), (37, 658), (39, 730), (40, 733), (46, 760), (48, 781), (57, 865), (59, 871),

Gene: ObLaDi\_2 Start: 374, Stop: 967, Start Num: 5  
Candidate Starts for ObLaDi\_2:  
(Start: 5 @374 has 5 MA's), (14, 431), (15, 437), (19, 503), (22, 533), (33, 638), (37, 653), (39, 725), (40, 728), (48, 776), (57, 860),

Gene: PapayaSalad\_55 Start: 37880, Stop: 38392, Start Num: 10  
Candidate Starts for PapayaSalad\_55:  
(Start: 10 @37880 has 5 MA's), (18, 37943), (20, 37970), (24, 37991), (44, 38204), (48, 38240), (57, 38324),

Gene: Parvaparticeps\_52 Start: 40205, Stop: 39681, Start Num: 9  
Candidate Starts for Parvaparticeps\_52:  
(3, 40277), (4, 40259), (9, 40205), (24, 40091), (26, 40043), (34, 39974), (35, 39971), (42, 39875), (57, 39749), (58, 39746), (59, 39743), (62, 39725), (64, 39707),

Gene: Picard\_56 Start: 38985, Stop: 39518, Start Num: 13  
Candidate Starts for Picard\_56:  
(Start: 13 @38985 has 6 MA's), (17, 39021), (24, 39093), (57, 39432),

Gene: Piccadilly\_1 Start: 1, Stop: 531, Start Num: 11  
Candidate Starts for Piccadilly\_1:  
(Start: 11 @1 has 11 MA's), (38, 265), (52, 385), (57, 448),

Gene: REQ3\_34 Start: 15686, Stop: 16183, Start Num: 13  
Candidate Starts for REQ3\_34:

(Start: 13 @15686 has 6 MA's), (21, 15779), (24, 15794), (25, 15815), (29, 15854), (30, 15866), (41, 15995), (50, 16046), (53, 16061), (55, 16085), (57, 16121), (61, 16136),

Gene: Raleigh\_53 Start: 40251, Stop: 40781, Start Num: 13

Candidate Starts for Raleigh\_53:

(Start: 13 @40251 has 6 MA's), (17, 40287), (24, 40359), (57, 40698), (58, 40701), (62, 40722),

Gene: SV1\_55 Start: 37076, Stop: 37609, Start Num: 13

Candidate Starts for SV1\_55:

(Start: 13 @37076 has 6 MA's), (17, 37112), (24, 37184), (28, 37241), (50, 37448), (57, 37523),

Gene: Schlegelian\_1 Start: 1, Stop: 531, Start Num: 11

Candidate Starts for Schlegelian\_1:

(Start: 11 @1 has 11 MA's), (38, 265), (52, 385), (57, 448),

Gene: SoJo\_53 Start: 38499, Stop: 39029, Start Num: 12

Candidate Starts for SoJo\_53:

(Start: 12 @38499 has 2 MA's), (24, 38607), (56, 38937), (57, 38946), (58, 38949),

Gene: TinyDot\_1 Start: 1, Stop: 510, Start Num: 7

Candidate Starts for TinyDot\_1:

(Start: 7 @1 has 1 MA's), (18, 64), (20, 91), (45, 325), (51, 376), (55, 406), (60, 454),

Gene: ToastyFinz\_52 Start: 39154, Stop: 39687, Start Num: 13

Candidate Starts for ToastyFinz\_52:

(1, 39007), (2, 39010), (Start: 13 @39154 has 6 MA's), (17, 39190), (56, 39592), (57, 39601), (58, 39604),

Gene: Tubberson\_53 Start: 38494, Stop: 39024, Start Num: 12

Candidate Starts for Tubberson\_53:

(Start: 12 @38494 has 2 MA's), (24, 38602), (56, 38932), (57, 38941), (58, 38944),

Gene: VanLee\_2 Start: 366, Stop: 896, Start Num: 8

Candidate Starts for VanLee\_2:

(Start: 8 @366 has 1 MA's), (23, 480), (27, 528), (31, 564), (32, 573), (39, 675), (46, 705), (52, 747), (54, 759), (57, 810), (59, 816), (62, 834), (63, 846),

Gene: Vondra\_1 Start: 1, Stop: 531, Start Num: 11

Candidate Starts for Vondra\_1:

(Start: 11 @1 has 11 MA's), (38, 265), (52, 385), (57, 448),