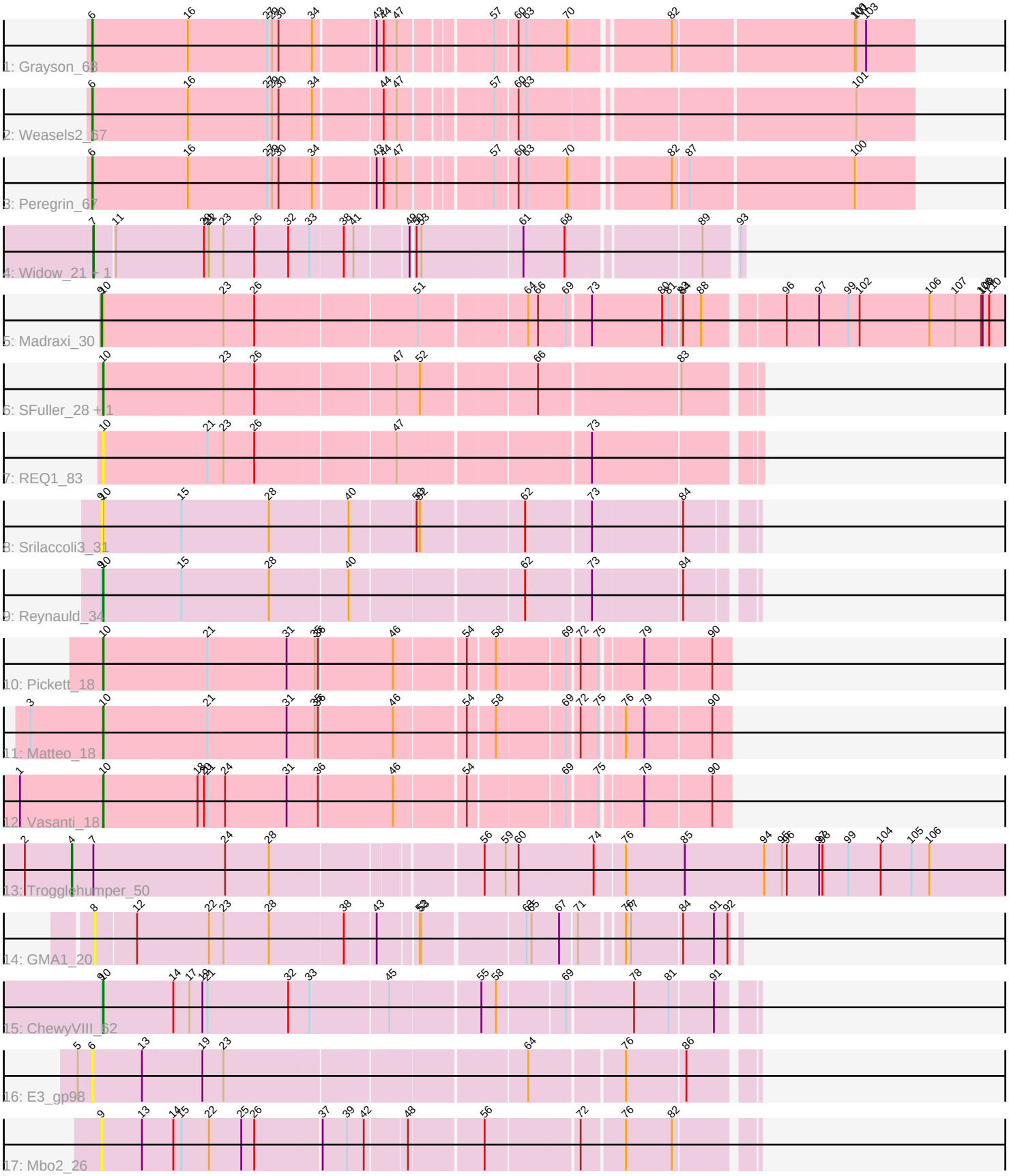
# Pham 291568


1: Grayson_68
2: Weasels2_67
3: Peregrin_67
4: Widow_21 + 1
5: Madraxi_30
6: SFuller_28 + 1
7: REQ1_83
8: Srilaccoli3_31
9: Reynauld_34
10: Pickett_18
11: Matteo_18
12: Vasanti_18
13: Troggle_humper_50
14: GMA1_20
15: ChewyVIII_62
16: E3_gp98
17: Mbo2_26

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 291568 Report

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

Pham number 291568 has 19 members, 6 are drafts.

Phages represented in each track:
- Track 1 : Grayson_68
- Track 2 : Weasels2_67
- Track 3 : Peregrin_67
- Track 4 : Widow_21, Puppers_21
- Track 5 : Madraxi_30
- Track 6 : SFuller_28, Jflix2_26
- Track 7 : REQ1_83
- Track 8 : Srilaccoli3_31
- Track 9 : Reynauld_34
- Track 10 : Pickett_18
- Track 11 : Matteo_18
- Track 12 : Vasanti_18
- Track 13 : Trogglehumper_50
- Track 14 : GMA1_20
- Track 15 : ChewyVIII_62
- Track 16 : E3_gp98
- Track 17 : Mbo2_26

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

The start number called the most often in the published annotations is 10, it was called in 6 of the 13 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
- ChewyVIII_62, Jflix2_26, Matteo_18, Pickett_18, REQ1_83, Reynauld_34, SFuller_28, Vasanti_18,

Genes that have the "Most Annotated" start but do not call it:
- Madraxi_30, Srilaccoli3_31,

Genes that do not have the "Most Annotated" start:
- E3_gp98, GMA1_20, Grayson_68, Mbo2_26, Peregrin_67, Puppers_21, Trogglehumper_50, Weasels2_67, Widow_21,

**Summary by start number:**

Start 4:
• Found in 1 of 19 ( 5.3% ) of genes in pham
• Manual Annotations of this start: 1 of 13
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Trogglehumper_50 (singleton),

Start 6:
• Found in 4 of 19 ( 21.1% ) of genes in pham
• Manual Annotations of this start: 3 of 13
• Called 100.0% of time when present
• Phage (with cluster) where this start called: E3_gp98 (singleton), Grayson_68 (CB), Peregrin_67 (CB), Weasels2_67 (CB),

Start 7:
• Found in 3 of 19 ( 15.8% ) of genes in pham
• Manual Annotations of this start: 2 of 13
• Called 66.7% of time when present
• Phage (with cluster) where this start called: Puppers_21 (CD), Widow_21 (CD),

Start 8:
• Found in 1 of 19 ( 5.3% ) of genes in pham
• No Manual Annotations of this start.
• Called 100.0% of time when present
• Phage (with cluster) where this start called: GMA1_20 (singleton),

Start 9:
• Found in 5 of 19 ( 26.3% ) of genes in pham
• Manual Annotations of this start: 1 of 13
• Called 60.0% of time when present
• Phage (with cluster) where this start called: Madraxi_30 (CF), Mbo2_26 (singleton), Srilaccoli3_31 (CH),

Start 10:
• Found in 10 of 19 ( 52.6% ) of genes in pham
• Manual Annotations of this start: 6 of 13
• Called 80.0% of time when present
• Phage (with cluster) where this start called: ChewyVIII_62 (singleton), Jflix2_26 (CF), Matteo_18 (CZ2), Pickett_18 (CZ2), REQ1_83 (CF), Reynauld_34 (CH), SFuller_28 (CF), Vasanti_18 (CZ2),

**Summary by clusters:**

There are 6 clusters represented in this pham: singleton, CH, CZ2, CB, CF, CD,

Info for manual annotations of cluster CB:
•Start number 6 was manually annotated 3 times for cluster CB.

Info for manual annotations of cluster CD:
•Start number 7 was manually annotated 2 times for cluster CD.

Info for manual annotations of cluster CF:

•Start number 9 was manually annotated 1 time for cluster CF.
•Start number 10 was manually annotated 1 time for cluster CF.

Info for manual annotations of cluster CH:
•Start number 10 was manually annotated 1 time for cluster CH.

Info for manual annotations of cluster CZ2:
•Start number 10 was manually annotated 3 times for cluster CZ2.

### *Gene Information:*

Gene: ChewyVIII_62 Start: 43758, Stop: 44864, Start Num: 10
Candidate Starts for ChewyVIII_62:
(Start: 9 @43755 has 1 MA's), (Start: 10 @43758 has 6 MA's), (14, 43887), (17, 43917), (19, 43935), (21, 43944), (32, 44094), (33, 44133), (45, 44271), (55, 44424), (58, 44448), (69, 44559), (78, 44670), (81, 44733), (91, 44805),

Gene: E3_gp98 Start: 56068, Stop: 57180, Start Num: 6
Candidate Starts for E3_gp98:
(5, 56041), (Start: 6 @56068 has 3 MA's), (13, 56158), (19, 56263), (23, 56302), (64, 56809), (76, 56965), (86, 57070),

Gene: GMA1_20 Start: 17561, Stop: 18616, Start Num: 8
Candidate Starts for GMA1_20:
(8, 17561), (12, 17633), (22, 17759), (23, 17786), (28, 17870), (38, 18005), (43, 18059), (52, 18122), (53, 18125), (63, 18287), (65, 18296), (67, 18344), (71, 18371), (76, 18434), (77, 18443), (84, 18533), (91, 18584), (92, 18605),

Gene: Grayson_68 Start: 28644, Stop: 30044, Start Num: 6
Candidate Starts for Grayson_68:
(Start: 6 @28644 has 3 MA's), (16, 28821), (27, 28965), (29, 28974), (30, 28986), (34, 29043), (43, 29148), (44, 29157), (47, 29181), (57, 29331), (60, 29367), (63, 29379), (70, 29451), (82, 29613), (100, 29934), (101, 29937), (103, 29955),

Gene: Jflix2_26 Start: 25867, Stop: 26955, Start Num: 10
Candidate Starts for Jflix2_26:
(Start: 10 @25867 has 6 MA's), (23, 26083), (26, 26140), (47, 26383), (52, 26422), (66, 26608), (83, 26845),

Gene: Madraxi_30 Start: 28062, Stop: 29615, Start Num: 9
Candidate Starts for Madraxi_30:
(Start: 9 @28062 has 1 MA's), (Start: 10 @28065 has 6 MA's), (23, 28281), (26, 28338), (51, 28620), (64, 28791), (66, 28809), (69, 28857), (73, 28893), (80, 29019), (81, 29031), (83, 29049), (84, 29052), (88, 29076), (96, 29208), (97, 29268), (99, 29322), (102, 29343), (106, 29472), (107, 29520), (108, 29568), (109, 29571), (110, 29583),

Gene: Matteo_18 Start: 16486, Stop: 17544, Start Num: 10
Candidate Starts for Matteo_18:
(3, 16354), (Start: 10 @16486 has 6 MA's), (21, 16669), (31, 16813), (35, 16864), (36, 16870), (46, 17002), (54, 17119), (58, 17164), (69, 17281), (72, 17299), (75, 17326), (76, 17362), (79, 17395), (90, 17512),

Gene: Mbo2_26 Start: 27781, Stop: 28878, Start Num: 9
Candidate Starts for Mbo2_26:
(Start: 9 @27781 has 1 MA's), (13, 27856), (14, 27913), (15, 27928), (22, 27973), (25, 28033), (26, 28057), (37, 28174), (39, 28219), (42, 28249), (48, 28315), (56, 28444), (72, 28597), (76, 28666), (82, 28750),

Gene: Peregrin_67 Start: 28158, Stop: 29555, Start Num: 6
Candidate Starts for Peregrin_67:
(Start: 6 @28158 has 3 MA's), (16, 28335), (27, 28479), (29, 28488), (30, 28500), (34, 28557), (43, 28662), (44, 28671), (47, 28695), (57, 28845), (60, 28881), (63, 28893), (70, 28965), (82, 29127), (87, 29154), (100, 29448),

Gene: Pickett_18 Start: 16479, Stop: 17537, Start Num: 10
Candidate Starts for Pickett_18:
(Start: 10 @16479 has 6 MA's), (21, 16662), (31, 16806), (35, 16857), (36, 16863), (46, 16995), (54, 17112), (58, 17157), (69, 17274), (72, 17292), (75, 17319), (79, 17388), (90, 17505),

Gene: Puppers_21 Start: 17502, Stop: 18587, Start Num: 7
Candidate Starts for Puppers_21:
(Start: 7 @17502 has 2 MA's), (11, 17538), (20, 17691), (21, 17697), (22, 17700), (23, 17727), (26, 17784), (32, 17847), (33, 17883), (38, 17943), (41, 17961), (49, 18048), (50, 18054), (53, 18063), (61, 18234), (68, 18309), (89, 18525), (93, 18579),

Gene: REQ1_83 Start: 49534, Stop: 50622, Start Num: 10
Candidate Starts for REQ1_83:
(Start: 10 @49534 has 6 MA's), (21, 49720), (23, 49750), (26, 49807), (47, 50050), (73, 50356),

Gene: Reynauld_34 Start: 35895, Stop: 36983, Start Num: 10
Candidate Starts for Reynauld_34:
(Start: 9 @35892 has 1 MA's), (Start: 10 @35895 has 6 MA's), (15, 36039), (28, 36195), (40, 36333), (62, 36615), (73, 36723), (84, 36879),

Gene: SFuller_28 Start: 26460, Stop: 27548, Start Num: 10
Candidate Starts for SFuller_28:
(Start: 10 @26460 has 6 MA's), (23, 26676), (26, 26733), (47, 26976), (52, 27015), (66, 27201), (83, 27438),

Gene: Srilaccoli3_31 Start: 34816, Stop: 35907, Start Num: 9
Candidate Starts for Srilaccoli3_31:
(Start: 9 @34816 has 1 MA's), (Start: 10 @34819 has 6 MA's), (15, 34963), (28, 35119), (40, 35257), (50, 35368), (52, 35374), (62, 35539), (73, 35647), (84, 35803),

Gene: Trogglehumper_50 Start: 44419, Stop: 46098, Start Num: 4
Candidate Starts for Trogglehumper_50:
(2, 44332), (Start: 4 @44419 has 1 MA's), (Start: 7 @44458 has 2 MA's), (24, 44698), (28, 44779), (56, 45124), (59, 45163), (60, 45187), (74, 45319), (76, 45373), (85, 45481), (94, 45625), (95, 45658), (96, 45667), (97, 45727), (98, 45733), (99, 45781), (104, 45841), (105, 45898), (106, 45931),

Gene: Vasanti_18 Start: 16494, Stop: 17552, Start Num: 10
Candidate Starts for Vasanti_18:
(1, 16344), (Start: 10 @16494 has 6 MA's), (18, 16662), (20, 16671), (21, 16677), (24, 16710), (31, 16821), (36, 16878), (46, 17010), (54, 17127), (69, 17289), (75, 17334), (79, 17403), (90, 17520),

Gene: Weasels2_67 Start: 28157, Stop: 29557, Start Num: 6
Candidate Starts for Weasels2_67:
(Start: 6 @28157 has 3 MA's), (16, 28334), (27, 28478), (29, 28487), (30, 28499), (34, 28556), (44, 28670), (47, 28694), (57, 28844), (60, 28880), (63, 28892), (101, 29450),

Gene: Widow_21 Start: 17493, Stop: 18578, Start Num: 7
Candidate Starts for Widow_21:
(Start: 7 @17493 has 2 MA's), (11, 17529), (20, 17682), (21, 17688), (22, 17691), (23, 17718), (26, 17775), (32, 17838), (33, 17874), (38, 17934), (41, 17952), (49, 18039), (50, 18045), (53, 18054), (61, 18225), (68, 18300), (89, 18516), (93, 18570),