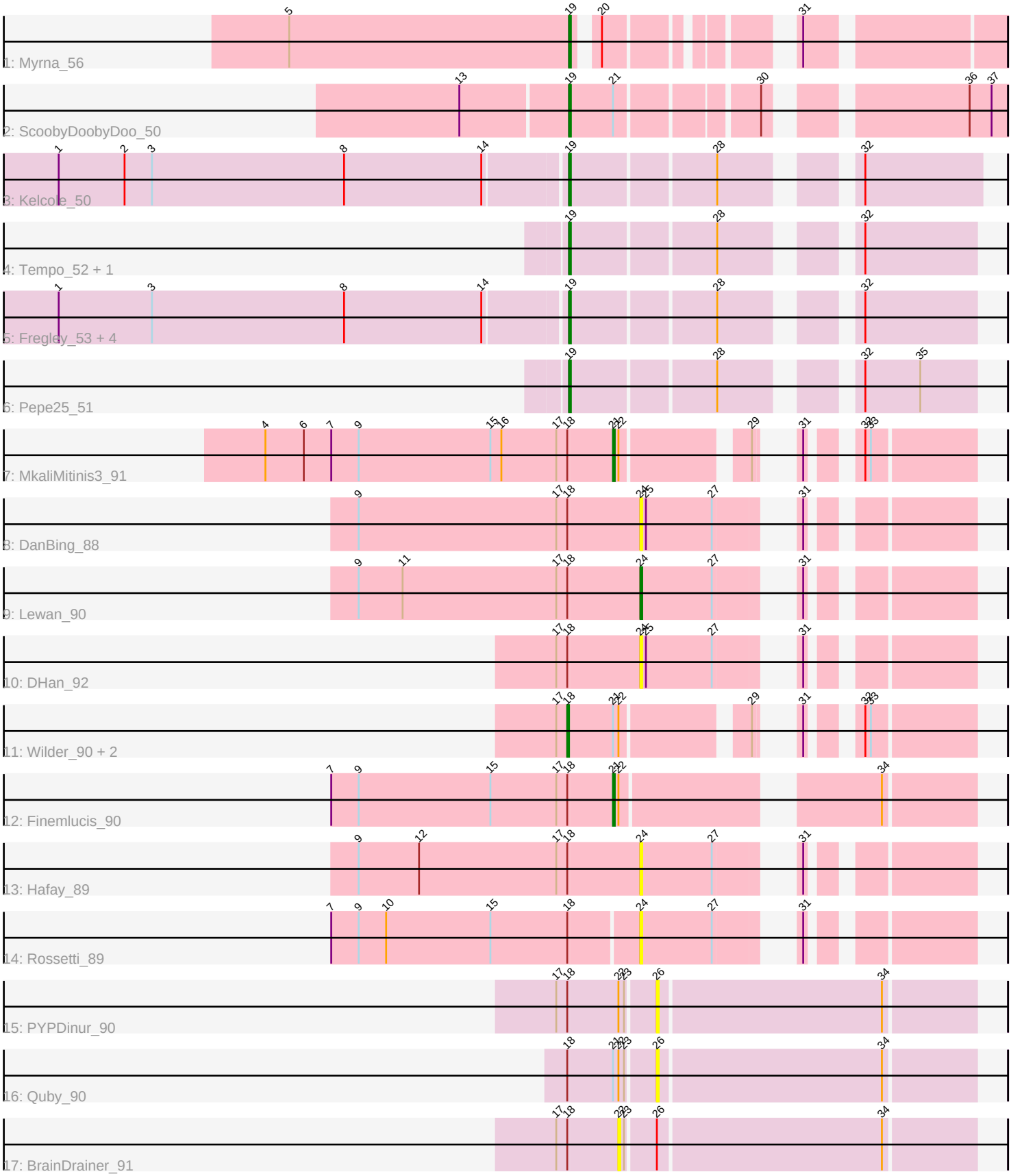
Pham 311971


1: Myrna_56
2: ScoobyDoobyDoo_50
3: Kelcole_50
4: Tempo_52 + 1
5: Fregley_53 + 4
6: Pepe25_51
7: MkaliMitinis3_91
8: DanBing_88
9: Lewan_90
10: DHan_92
11: Wilder_90 + 2
12: Finemlucis_90
13: Hafay_89
14: Rossetti_89
15: PYPDinur_90
16: Quby_90
17: BrainDrainer_91

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 311971 Report

This analysis was run 06/27/26 on database version 652.

Pham number 311971 has 24 members, 9 are drafts.

Phages represented in each track:
• Track 1 : Myrna_56
• Track 2 : ScoobyDoobyDoo_50
• Track 3 : Kelcole_50
• Track 4 : Tempo_52, KillerQueen_53
• Track 5 : Fregley_53, RobinRose_54, OneinaGillian_52, CandC_51, Romm_54
• Track 6 : Pepe25_51
• Track 7 : MkaliMitinis3_91
• Track 8 : DanBing_88
• Track 9 : Lewan_90
• Track 10 : DHan_92
• Track 11 : Wilder_90, Kahlid_88, Lynnae_90
• Track 12 : Finemlucis_90
• Track 13 : Hafay_89
• Track 14 : Rossetti_89
• Track 15 : PYPDinur_90
• Track 16 : Quby_90
• Track 17 : BrainDrainer_91

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

The start number called the most often in the published annotations is 19, it was called in 10 of the 15 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• CandC_51, Fregley_53, Kelcole_50, KillerQueen_53, Myrna_56, OneinaGillian_52, Pepe25_51, RobinRose_54, Romm_54, ScoobyDoobyDoo_50, Tempo_52,

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

Genes that do not have the "Most Annotated" start:
• BrainDrainer_91, DHan_92, DanBing_88, Finemlucis_90, Hafay_89, Kahlid_88, Lewan_90, Lynnae_90, MkaliMitinis3_91, PYPDinur_90, Quby_90, Rossetti_89, Wilder_90,

Summary by start number:

Start 18:
• Found in 13 of 24 (54.2%) of genes in pham
• Manual Annotations of this start: 2 of 15
• Called 23.1% of time when present
• Phage (with cluster) where this start called: Kahlid_88 (L2), Lynnae_90 (L2), Wilder_90 (L2),

Start 19:
• Found in 11 of 24 (45.8%) of genes in pham
• Manual Annotations of this start: 10 of 15
• Called 100.0% of time when present
• Phage (with cluster) where this start called: CandC_51 (EG), Fregley_53 (EG), Kelcole_50 (EG), KillerQueen_53 (EG), Myrna_56 (C2), OneinaGillian_52 (EG), Pepe25_51 (EG), RobinRose_54 (EG), Romm_54 (EG), ScoobyDoobyDoo_50 (C2), Tempo_52 (EG),

Start 21:
• Found in 7 of 24 (29.2%) of genes in pham
• Manual Annotations of this start: 2 of 15
• Called 28.6% of time when present
• Phage (with cluster) where this start called: Finemlucis_90 (L2), MkaliMitinis3_91 (L2),

Start 22:
• Found in 8 of 24 (33.3%) of genes in pham
• No Manual Annotations of this start.
• Called 12.5% of time when present
• Phage (with cluster) where this start called: BrainDrainer_91 (L4),

Start 24:
• Found in 5 of 24 (20.8%) of genes in pham
• Manual Annotations of this start: 1 of 15
• Called 100.0% of time when present
• Phage (with cluster) where this start called: DHan_92 (L2), DanBing_88 (L2), Hafay_89 (L2), Lewan_90 (L2), Rossetti_89 (L2),

Start 26:
• Found in 3 of 24 (12.5%) of genes in pham
• No Manual Annotations of this start.
• Called 66.7% of time when present
• Phage (with cluster) where this start called: PYPDinur_90 (L4), Quby_90 (L4),

Summary by clusters:

There are 4 clusters represented in this pham: C2, EG, L2, L4,

Info for manual annotations of cluster C2:
•Start number 19 was manually annotated 2 times for cluster C2.

Info for manual annotations of cluster EG:

•Start number 19 was manually annotated 8 times for cluster EG.

Info for manual annotations of cluster L2:
•Start number 18 was manually annotated 2 times for cluster L2.
•Start number 21 was manually annotated 2 times for cluster L2.
•Start number 24 was manually annotated 1 time for cluster L2.

Gene Information:

Gene: BrainDrainer_91 Start: 57339, Stop: 57524, Start Num: 22
Candidate Starts for BrainDrainer_91:
(17, 57306), (Start: 18 @57312 has 2 MA's), (22, 57339), (23, 57342), (26, 57357), (34, 57477),

Gene: CandC_51 Start: 36309, Stop: 36118, Start Num: 19
Candidate Starts for CandC_51:
(1, 36582), (3, 36531), (8, 36426), (14, 36351), (Start: 19 @36309 has 10 MA's), (28, 36234), (32, 36177),

Gene: DHan_92 Start: 57819, Stop: 57959, Start Num: 24
Candidate Starts for DHan_92:
(17, 57774), (Start: 18 @57780 has 2 MA's), (Start: 24 @57819 has 1 MA's), (25, 57822), (27, 57858), (31, 57885),

Gene: DanBing_88 Start: 57317, Stop: 57457, Start Num: 24
Candidate Starts for DanBing_88:
(9, 57164), (17, 57272), (Start: 18 @57278 has 2 MA's), (Start: 24 @57317 has 1 MA's), (25, 57320), (27, 57356), (31, 57383),

Gene: Finemlucis_90 Start: 58613, Stop: 58783, Start Num: 21
Candidate Starts for Finemlucis_90:
(7, 58460), (9, 58475), (15, 58547), (17, 58583), (Start: 18 @58589 has 2 MA's), (Start: 21 @58613 has 2 MA's), (22, 58616), (34, 58736),

Gene: Fregley_53 Start: 36870, Stop: 36679, Start Num: 19
Candidate Starts for Fregley_53:
(1, 37143), (3, 37092), (8, 36987), (14, 36912), (Start: 19 @36870 has 10 MA's), (28, 36795), (32, 36738),

Gene: Hafay_89 Start: 57435, Stop: 57575, Start Num: 24
Candidate Starts for Hafay_89:
(9, 57282), (12, 57315), (17, 57390), (Start: 18 @57396 has 2 MA's), (Start: 24 @57435 has 1 MA's), (27, 57474), (31, 57501),

Gene: Kahlid_88 Start: 57250, Stop: 57417, Start Num: 18
Candidate Starts for Kahlid_88:
(17, 57244), (Start: 18 @57250 has 2 MA's), (Start: 21 @57274 has 2 MA's), (22, 57277), (29, 57337), (31, 57343), (32, 57361), (33, 57364),

Gene: Kelcole_50 Start: 36504, Stop: 36310, Start Num: 19
Candidate Starts for Kelcole_50:

(1, 36777), (2, 36741), (3, 36726), (8, 36621), (14, 36546), (Start: 19 @36504 has 10 MA's), (28, 36429), (32, 36372),

Gene: KillerQueen_53 Start: 36753, Stop: 36562, Start Num: 19
Candidate Starts for KillerQueen_53:
(Start: 19 @36753 has 10 MA's), (28, 36678), (32, 36621),

Gene: Lewan_90 Start: 57483, Stop: 57623, Start Num: 24
Candidate Starts for Lewan_90:
(9, 57330), (11, 57354), (17, 57438), (Start: 18 @57444 has 2 MA's), (Start: 24 @57483 has 1 MA's), (27, 57522), (31, 57549),

Gene: Lynnae_90 Start: 57262, Stop: 57429, Start Num: 18
Candidate Starts for Lynnae_90:
(17, 57256), (Start: 18 @57262 has 2 MA's), (Start: 21 @57286 has 2 MA's), (22, 57289), (29, 57349), (31, 57355), (32, 57373), (33, 57376),

Gene: MkaliMitinis3_91 Start: 57639, Stop: 57782, Start Num: 21
Candidate Starts for MkaliMitinis3_91:
(4, 57450), (6, 57471), (7, 57486), (9, 57501), (15, 57573), (16, 57579), (17, 57609), (Start: 18 @57615 has 2 MA's), (Start: 21 @57639 has 2 MA's), (22, 57642), (29, 57702), (31, 57708), (32, 57726), (33, 57729),

Gene: Myrna_56 Start: 22168, Stop: 22353, Start Num: 19
Candidate Starts for Myrna_56:
(5, 22015), (Start: 19 @22168 has 10 MA's), (20, 22177), (31, 22255),

Gene: OneinaGillian_52 Start: 36406, Stop: 36215, Start Num: 19
Candidate Starts for OneinaGillian_52:
(1, 36679), (3, 36628), (8, 36523), (14, 36448), (Start: 19 @36406 has 10 MA's), (28, 36331), (32, 36274),

Gene: PYPDinur_90 Start: 57609, Stop: 57776, Start Num: 26
Candidate Starts for PYPDinur_90:
(17, 57558), (Start: 18 @57564 has 2 MA's), (22, 57591), (23, 57594), (26, 57609), (34, 57729),

Gene: Pepe25_51 Start: 35948, Stop: 35757, Start Num: 19
Candidate Starts for Pepe25_51:
(Start: 19 @35948 has 10 MA's), (28, 35873), (32, 35816), (35, 35786),

Gene: Quby_90 Start: 56844, Stop: 57011, Start Num: 26
Candidate Starts for Quby_90:
(Start: 18 @56799 has 2 MA's), (Start: 21 @56823 has 2 MA's), (22, 56826), (23, 56829), (26, 56844), (34, 56964),

Gene: RobinRose_54 Start: 36915, Stop: 36724, Start Num: 19
Candidate Starts for RobinRose_54:
(1, 37188), (3, 37137), (8, 37032), (14, 36957), (Start: 19 @36915 has 10 MA's), (28, 36840), (32, 36783),

Gene: Romm_54 Start: 36915, Stop: 36724, Start Num: 19
Candidate Starts for Romm_54:

(1, 37188), (3, 37137), (8, 37032), (14, 36957), (Start: 19 @36915 has 10 MA's), (28, 36840), (32, 36783),

Gene: Rossetti_89 Start: 57710, Stop: 57850, Start Num: 24
Candidate Starts for Rossetti_89:
(7, 57545), (9, 57560), (10, 57575), (15, 57632), (Start: 18 @57674 has 2 MA's), (Start: 24 @57710 has 1 MA's), (27, 57749), (31, 57776),

Gene: ScoobyDoobyDoo_50 Start: 17925, Stop: 18128, Start Num: 19
Candidate Starts for ScoobyDoobyDoo_50:
(13, 17868), (Start: 19 @17925 has 10 MA's), (Start: 21 @17949 has 2 MA's), (30, 18018), (36, 18108), (37, 18120),

Gene: Tempo_52 Start: 36794, Stop: 36603, Start Num: 19
Candidate Starts for Tempo_52:
(Start: 19 @36794 has 10 MA's), (28, 36719), (32, 36662),

Gene: Wilder_90 Start: 57250, Stop: 57417, Start Num: 18
Candidate Starts for Wilder_90:
(17, 57244), (Start: 18 @57250 has 2 MA's), (Start: 21 @57274 has 2 MA's), (22, 57277), (29, 57337), (31, 57343), (32, 57361), (33, 57364),