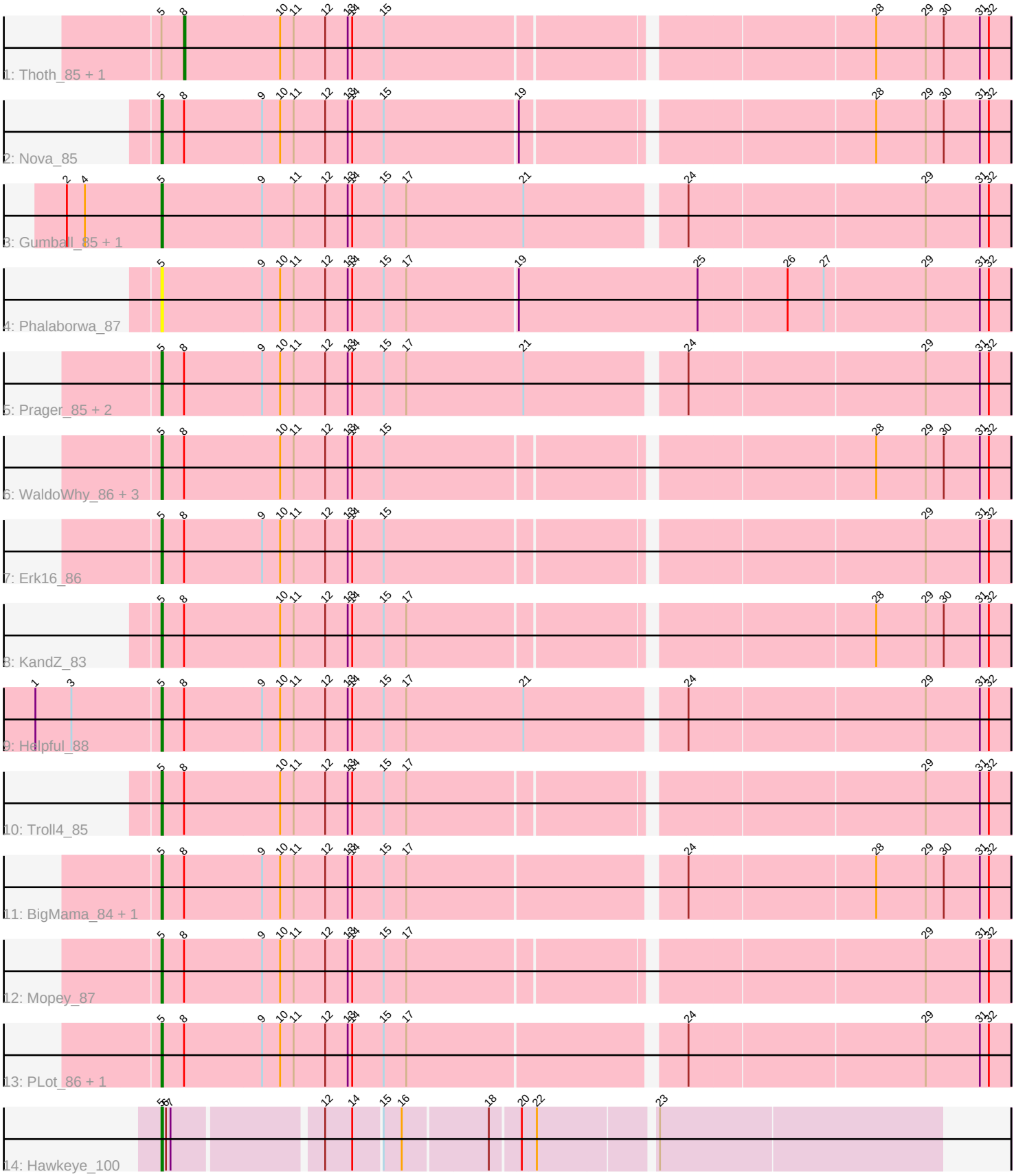
Pham 309221


1: Thoth_85 + 1
2: Nova_85
3: Gumball_85 + 1
4: Phalaborwa_87
5: Prager_85 + 2
6: WaldoWhy_86 + 3
7: Erk16_86
8: KandZ_83
9: Helpful_88
10: Troll4_85
11: BigMama_84 + 1
12: Mopey_87
13: PLot_86 + 1
14: Hawkeye_100

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 309221 Report

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

Pham number 309221 has 23 members, 1 are drafts.

Phages represented in each track:
• Track 1 : Thoth_85, Butterscotch_83
• Track 2 : Nova_85
• Track 3 : Gumball_85, SirHarley_87
• Track 4 : Phalaborwa_87
• Track 5 : Prager_85, SuperheroCarly_84, Giuseppe_87
• Track 6 : WaldoWhy_86, Adjutor_83, Delton_84, Chill_86
• Track 7 : Erk16_86
• Track 8 : KandZ_83
• Track 9 : Helpful_88
• Track 10 : Troll4_85
• Track 11 : BigMama_84, Penelope2018_85
• Track 12 : Mopey_87
• Track 13 : PLot_86, Visconti_86
• Track 14 : Hawkeye_100

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

The start number called the most often in the published annotations is 5, it was called in 20 of the 22 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Adjutor_83, BigMama_84, Chill_86, Delton_84, Erk16_86, Giuseppe_87, Gumball_85, Hawkeye_100, Helpful_88, KandZ_83, Mopey_87, Nova_85, PLot_86, Penelope2018_85, Phalaborwa_87, Prager_85, SirHarley_87, SuperheroCarly_84, Troll4_85, Visconti_86, WaldoWhy_86,

Genes that have the "Most Annotated" start but do not call it:
• Butterscotch_83, Thoth_85,

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

Summary by start number:

Start 5:
• Found in 23 of 23 (100.0%) of genes in pham
• Manual Annotations of this start: 20 of 22
• Called 91.3% of time when present
• Phage (with cluster) where this start called: Adjutor_83 (D1), BigMama_84 (D1), Chill_86 (D1), Delton_84 (D1), Erk16_86 (D1), Giuseppe_87 (D1), Gumball_85 (D1), Hawkeye_100 (D2), Helpful_88 (D1), KandZ_83 (D1), Mopey_87 (D1), Nova_85 (D1), PLot_86 (D1), Penelope2018_85 (D1), Phalaborwa_87 (D1), Prager_85 (D1), SirHarley_87 (D1), SuperheroCarly_84 (D1), Troll4_85 (D1), Visconti_86 (D1), WaldoWhy_86 (D1),

Start 8:
• Found in 19 of 23 (82.6%) of genes in pham
• Manual Annotations of this start: 2 of 22
• Called 10.5% of time when present
• Phage (with cluster) where this start called: Butterscotch_83 (D1), Thoth_85 (D1),

Summary by clusters:

There are 2 clusters represented in this pham: D2, D1,

Info for manual annotations of cluster D1:
•Start number 5 was manually annotated 19 times for cluster D1.
•Start number 8 was manually annotated 2 times for cluster D1.

Info for manual annotations of cluster D2:
•Start number 5 was manually annotated 1 time for cluster D2.

Gene Information:

Gene: Adjutor_83 Start: 60047, Stop: 60586, Start Num: 5
Candidate Starts for Adjutor_83:
(Start: 5 @60047 has 20 MA's), (Start: 8 @60062 has 2 MA's), (10, 60125), (11, 60134), (12, 60155), (13, 60170), (14, 60173), (15, 60194), (28, 60497), (29, 60530), (30, 60542), (31, 60566), (32, 60572),

Gene: BigMama_84 Start: 60135, Stop: 60677, Start Num: 5
Candidate Starts for BigMama_84:
(Start: 5 @60135 has 20 MA's), (Start: 8 @60150 has 2 MA's), (9, 60201), (10, 60213), (11, 60222), (12, 60243), (13, 60258), (14, 60261), (15, 60282), (17, 60297), (24, 60468), (28, 60588), (29, 60621), (30, 60633), (31, 60657), (32, 60663),

Gene: Butterscotch_83 Start: 60113, Stop: 60637, Start Num: 8
Candidate Starts for Butterscotch_83:
(Start: 5 @60098 has 20 MA's), (Start: 8 @60113 has 2 MA's), (10, 60176), (11, 60185), (12, 60206), (13, 60221), (14, 60224), (15, 60245), (28, 60548), (29, 60581), (30, 60593), (31, 60617), (32, 60623),

Gene: Chill_86 Start: 60075, Stop: 60614, Start Num: 5
Candidate Starts for Chill_86:
(Start: 5 @60075 has 20 MA's), (Start: 8 @60090 has 2 MA's), (10, 60153), (11, 60162), (12, 60183), (13, 60198), (14, 60201), (15, 60222), (28, 60525), (29, 60558), (30, 60570), (31, 60594), (32, 60600),

Gene: Delton_84 Start: 60508, Stop: 61047, Start Num: 5
Candidate Starts for Delton_84:
(Start: 5 @60508 has 20 MA's), (Start: 8 @60523 has 2 MA's), (10, 60586), (11, 60595), (12, 60616), (13, 60631), (14, 60634), (15, 60655), (28, 60958), (29, 60991), (30, 61003), (31, 61027), (32, 61033),

Gene: Erk16_86 Start: 60431, Stop: 60970, Start Num: 5
Candidate Starts for Erk16_86:
(Start: 5 @60431 has 20 MA's), (Start: 8 @60446 has 2 MA's), (9, 60497), (10, 60509), (11, 60518), (12, 60539), (13, 60554), (14, 60557), (15, 60578), (29, 60914), (31, 60950), (32, 60956),

Gene: Giuseppe_87 Start: 60144, Stop: 60689, Start Num: 5
Candidate Starts for Giuseppe_87:
(Start: 5 @60144 has 20 MA's), (Start: 8 @60159 has 2 MA's), (9, 60210), (10, 60222), (11, 60231), (12, 60252), (13, 60267), (14, 60270), (15, 60291), (17, 60306), (21, 60384), (24, 60480), (29, 60633), (31, 60669), (32, 60675),

Gene: Gumball_85 Start: 60357, Stop: 60902, Start Num: 5
Candidate Starts for Gumball_85:
(2, 60294), (4, 60306), (Start: 5 @60357 has 20 MA's), (9, 60423), (11, 60444), (12, 60465), (13, 60480), (14, 60483), (15, 60504), (17, 60519), (21, 60597), (24, 60693), (29, 60846), (31, 60882), (32, 60888),

Gene: Hawkeye_100 Start: 62894, Stop: 63379, Start Num: 5
Candidate Starts for Hawkeye_100:
(Start: 5 @62894 has 20 MA's), (6, 62897), (7, 62900), (12, 62993), (14, 63011), (15, 63029), (16, 63041), (18, 63095), (20, 63113), (22, 63122), (23, 63194),

Gene: Helpful_88 Start: 60343, Stop: 60888, Start Num: 5
Candidate Starts for Helpful_88:
(1, 60262), (3, 60286), (Start: 5 @60343 has 20 MA's), (Start: 8 @60358 has 2 MA's), (9, 60409), (10, 60421), (11, 60430), (12, 60451), (13, 60466), (14, 60469), (15, 60490), (17, 60505), (21, 60583), (24, 60679), (29, 60832), (31, 60868), (32, 60874),

Gene: KandZ_83 Start: 60171, Stop: 60710, Start Num: 5
Candidate Starts for KandZ_83:
(Start: 5 @60171 has 20 MA's), (Start: 8 @60186 has 2 MA's), (10, 60249), (11, 60258), (12, 60279), (13, 60294), (14, 60297), (15, 60318), (17, 60333), (28, 60621), (29, 60654), (30, 60666), (31, 60690), (32, 60696),

Gene: Mopey_87 Start: 60171, Stop: 60710, Start Num: 5
Candidate Starts for Mopey_87:
(Start: 5 @60171 has 20 MA's), (Start: 8 @60186 has 2 MA's), (9, 60237), (10, 60249), (11, 60258), (12, 60279), (13, 60294), (14, 60297), (15, 60318), (17, 60333), (29, 60654), (31, 60690), (32, 60696),

Gene: Nova_85 Start: 60661, Stop: 61200, Start Num: 5
Candidate Starts for Nova_85:
(Start: 5 @60661 has 20 MA's), (Start: 8 @60676 has 2 MA's), (9, 60727), (10, 60739), (11, 60748), (12, 60769), (13, 60784), (14, 60787), (15, 60808), (19, 60895), (28, 61111), (29, 61144), (30, 61156), (31, 61180), (32, 61186),

Gene: PLot_86 Start: 60322, Stop: 60864, Start Num: 5
Candidate Starts for PLot_86:

(Start: 5 @60322 has 20 MA's), (Start: 8 @60337 has 2 MA's), (9, 60388), (10, 60400), (11, 60409), (12, 60430), (13, 60445), (14, 60448), (15, 60469), (17, 60484), (24, 60655), (29, 60808), (31, 60844), (32, 60850),

Gene: Penelope2018_85 Start: 60097, Stop: 60639, Start Num: 5
Candidate Starts for Penelope2018_85:
(Start: 5 @60097 has 20 MA's), (Start: 8 @60112 has 2 MA's), (9, 60163), (10, 60175), (11, 60184), (12, 60205), (13, 60220), (14, 60223), (15, 60244), (17, 60259), (24, 60430), (28, 60550), (29, 60583), (30, 60595), (31, 60619), (32, 60625),

Gene: Phalaborwa_87 Start: 60656, Stop: 61210, Start Num: 5
Candidate Starts for Phalaborwa_87:
(Start: 5 @60656 has 20 MA's), (9, 60722), (10, 60734), (11, 60743), (12, 60764), (13, 60779), (14, 60782), (15, 60803), (17, 60818), (19, 60890), (25, 61007), (26, 61064), (27, 61088), (29, 61154), (31, 61190), (32, 61196),

Gene: Prager_85 Start: 60002, Stop: 60547, Start Num: 5
Candidate Starts for Prager_85:
(Start: 5 @60002 has 20 MA's), (Start: 8 @60017 has 2 MA's), (9, 60068), (10, 60080), (11, 60089), (12, 60110), (13, 60125), (14, 60128), (15, 60149), (17, 60164), (21, 60242), (24, 60338), (29, 60491), (31, 60527), (32, 60533),

Gene: SirHarley_87 Start: 60341, Stop: 60886, Start Num: 5
Candidate Starts for SirHarley_87:
(2, 60278), (4, 60290), (Start: 5 @60341 has 20 MA's), (9, 60407), (11, 60428), (12, 60449), (13, 60464), (14, 60467), (15, 60488), (17, 60503), (21, 60581), (24, 60677), (29, 60830), (31, 60866), (32, 60872),

Gene: SuperheroCarly_84 Start: 60071, Stop: 60616, Start Num: 5
Candidate Starts for SuperheroCarly_84:
(Start: 5 @60071 has 20 MA's), (Start: 8 @60086 has 2 MA's), (9, 60137), (10, 60149), (11, 60158), (12, 60179), (13, 60194), (14, 60197), (15, 60218), (17, 60233), (21, 60311), (24, 60407), (29, 60560), (31, 60596), (32, 60602),

Gene: Thoth_85 Start: 60166, Stop: 60690, Start Num: 8
Candidate Starts for Thoth_85:
(Start: 5 @60151 has 20 MA's), (Start: 8 @60166 has 2 MA's), (10, 60229), (11, 60238), (12, 60259), (13, 60274), (14, 60277), (15, 60298), (28, 60601), (29, 60634), (30, 60646), (31, 60670), (32, 60676),

Gene: Troll4_85 Start: 60158, Stop: 60697, Start Num: 5
Candidate Starts for Troll4_85:
(Start: 5 @60158 has 20 MA's), (Start: 8 @60173 has 2 MA's), (10, 60236), (11, 60245), (12, 60266), (13, 60281), (14, 60284), (15, 60305), (17, 60320), (29, 60641), (31, 60677), (32, 60683),

Gene: Visconti_86 Start: 60112, Stop: 60654, Start Num: 5
Candidate Starts for Visconti_86:
(Start: 5 @60112 has 20 MA's), (Start: 8 @60127 has 2 MA's), (9, 60178), (10, 60190), (11, 60199), (12, 60220), (13, 60235), (14, 60238), (15, 60259), (17, 60274), (24, 60445), (29, 60598), (31, 60634), (32, 60640),

Gene: WaldoWhy_86 Start: 60075, Stop: 60614, Start Num: 5
Candidate Starts for WaldoWhy_86:

(Start: 5 @60075 has 20 MA's), (Start: 8 @60090 has 2 MA's), (10, 60153), (11, 60162), (12, 60183), (13, 60198), (14, 60201), (15, 60222), (28, 60525), (29, 60558), (30, 60570), (31, 60594), (32, 60600),