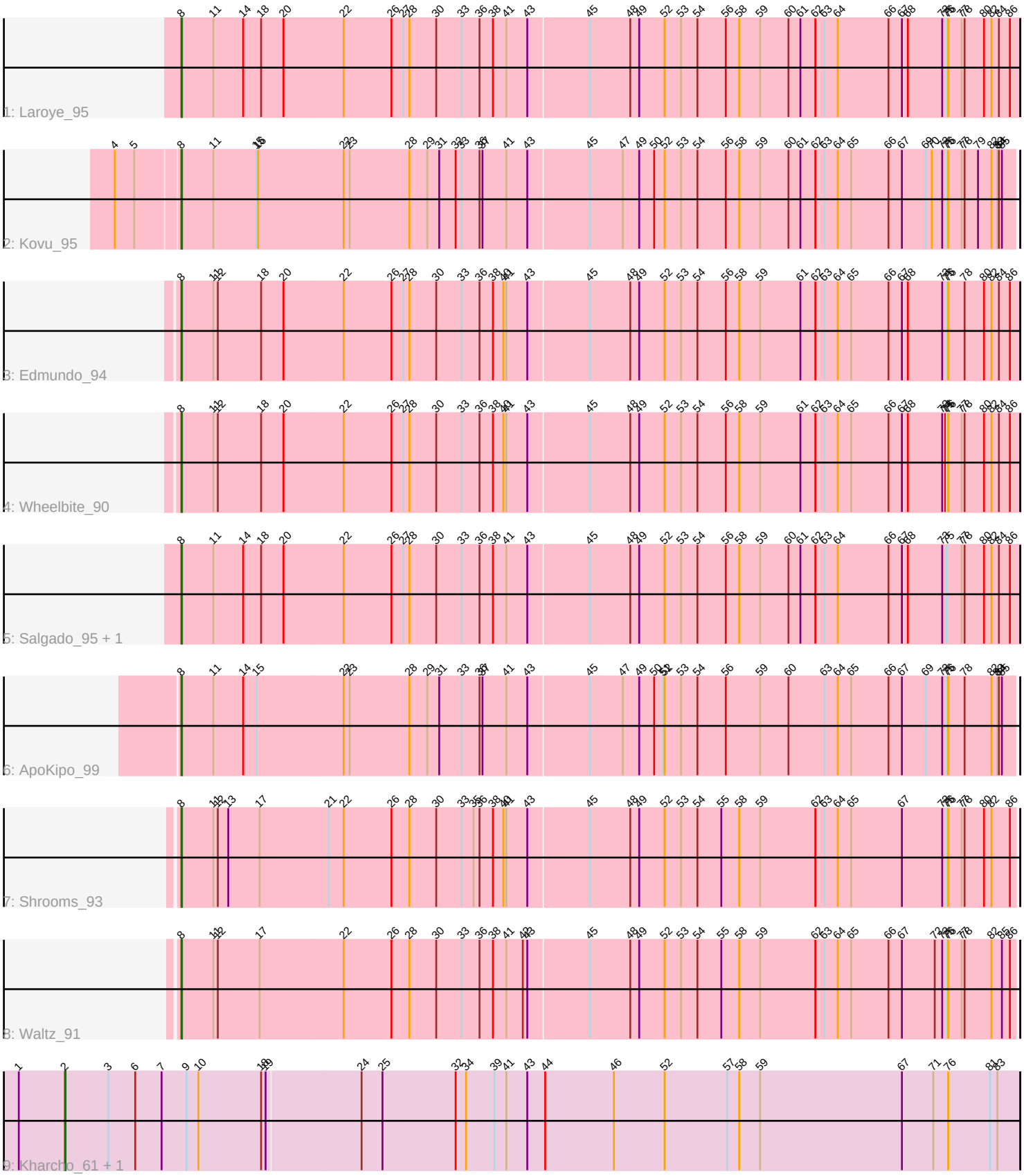
# Pham 284385


1: Laroye_95
2: Kovu_95
3: Edmundo_94
4: Wheelbite_90
5: Salgado_95 + 1
6: ApoKipo_99
7: Shrooms_93
8: Waltz_91
9: Kharcho_61 + 1

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 284385 Report

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

Pham number 284385 has 11 members, 0 are drafts.

Phages represented in each track:
• Track 1 : Laroye_95
• Track 2 : Kovu_95
• Track 3 : Edmundo_94
• Track 4 : Wheelbite_90
• Track 5 : Salgado_95, LiSara_92
• Track 6 : ApoKipo_99
• Track 7 : Shrooms_93
• Track 8 : Waltz_91
• Track 9 : Kharcho_61, Ottawa_61

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

The start number called the most often in the published annotations is 8, it was called in 9 of the 11 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• ApoKipo_99, Edmundo_94, Kovu_95, Laroye_95, LiSara_92, Salgado_95, Shrooms_93, Waltz_91, Wheelbite_90,

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

Genes that do not have the "Most Annotated" start:
• Kharcho_61, Ottawa_61,

**Summary by start number:**

Start 2:
• Found in 2 of 11 ( 18.2% ) of genes in pham
• Manual Annotations of this start: 2 of 11
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Kharcho_61 (FM), Ottawa_61 (FM),

Start 8:

• Found in 9 of 11 ( 81.8% ) of genes in pham
• Manual Annotations of this start: 9 of 11
• Called 100.0% of time when present
• Phage (with cluster) where this start called: ApoKipo_99 (AL), Edmundo_94 (AL), Kovu_95 (AL), Laroye_95 (AL), LiSara_92 (AL), Salgado_95 (AL), Shrooms_93 (AL), Waltz_91 (AL), Wheelbite_90 (AL),

**Summary by clusters:**

There are 2 clusters represented in this pham: AL, FM,

Info for manual annotations of cluster AL:
•Start number 8 was manually annotated 9 times for cluster AL.

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

***Gene Information:***

Gene: ApoKipo_99 Start: 56676, Stop: 58337, Start Num: 8
Candidate Starts for ApoKipo_99:
(Start: 8 @56676 has 9 MA's), (11, 56736), (14, 56796), (15, 56823), (22, 56997), (23, 57009), (28, 57129), (29, 57165), (31, 57189), (33, 57234), (36, 57270), (37, 57276), (41, 57324), (43, 57366), (45, 57486), (47, 57549), (49, 57582), (50, 57612), (51, 57630), (52, 57633), (53, 57666), (54, 57699), (56, 57756), (59, 57825), (60, 57882), (63, 57954), (64, 57981), (65, 58008), (66, 58083), (67, 58110), (69, 58158), (73, 58191), (75, 58200), (76, 58203), (78, 58236), (82, 58290), (83, 58302), (84, 58305), (85, 58311),

Gene: Edmundo_94 Start: 55295, Stop: 56959, Start Num: 8
Candidate Starts for Edmundo_94:
(Start: 8 @55295 has 9 MA's), (11, 55358), (12, 55367), (18, 55454), (20, 55499), (22, 55619), (26, 55712), (27, 55736), (28, 55748), (30, 55802), (33, 55853), (36, 55889), (38, 55916), (40, 55937), (41, 55943), (43, 55985), (45, 56102), (48, 56180), (49, 56198), (52, 56249), (53, 56282), (54, 56315), (56, 56372), (58, 56399), (59, 56441), (61, 56522), (62, 56552), (63, 56570), (64, 56597), (65, 56624), (66, 56699), (67, 56726), (68, 56738), (73, 56807), (75, 56816), (76, 56819), (78, 56852), (80, 56888), (82, 56903), (84, 56918), (86, 56939),

Gene: Kharcho_61 Start: 33998, Stop: 35899, Start Num: 2
Candidate Starts for Kharcho_61:
(1, 33905), (Start: 2 @33998 has 2 MA's), (3, 34085), (6, 34139), (7, 34190), (9, 34238), (10, 34262), (18, 34388), (19, 34397), (24, 34583), (25, 34625), (32, 34772), (34, 34793), (39, 34850), (41, 34874), (43, 34916), (44, 34952), (46, 35090), (52, 35192), (57, 35318), (58, 35342), (59, 35384), (67, 35669), (71, 35732), (76, 35762), (81, 35843), (83, 35858),

Gene: Kovu_95 Start: 56142, Stop: 57803, Start Num: 8
Candidate Starts for Kovu_95:
(4, 56019), (5, 56058), (Start: 8 @56142 has 9 MA's), (11, 56202), (15, 56289), (16, 56292), (22, 56463), (23, 56475), (28, 56595), (29, 56631), (31, 56655), (32, 56688), (33, 56700), (36, 56736), (37, 56742), (41, 56790), (43, 56832), (45, 56952), (47, 57015), (49, 57048), (50, 57078), (52, 57099), (53, 57132), (54, 57165), (56, 57222), (58, 57249), (59, 57291), (60, 57348), (61, 57372), (62, 57402), (63, 57420), (64, 57447), (65, 57474), (66, 57549), (67, 57576), (69, 57624), (70, 57636), (73, 57657), (75,

57666), (76, 57669), (77, 57696), (78, 57702), (79, 57729), (82, 57756), (83, 57768), (84, 57771), (85, 57777),

Gene: Laroye_95 Start: 55108, Stop: 56772, Start Num: 8
Candidate Starts for Laroye_95:
(Start: 8 @55108 has 9 MA's), (11, 55171), (14, 55231), (18, 55267), (20, 55312), (22, 55432), (26, 55525), (27, 55549), (28, 55561), (30, 55615), (33, 55666), (36, 55702), (38, 55729), (41, 55756), (43, 55798), (45, 55915), (48, 55993), (49, 56011), (52, 56062), (53, 56095), (54, 56128), (56, 56185), (58, 56212), (59, 56254), (60, 56311), (61, 56335), (62, 56365), (63, 56383), (64, 56410), (66, 56512), (67, 56539), (68, 56551), (73, 56620), (75, 56629), (76, 56632), (77, 56659), (78, 56665), (80, 56701), (82, 56716), (84, 56731), (86, 56752),

Gene: LiSara_92 Start: 55240, Stop: 56904, Start Num: 8
Candidate Starts for LiSara_92:
(Start: 8 @55240 has 9 MA's), (11, 55303), (14, 55363), (18, 55399), (20, 55444), (22, 55564), (26, 55657), (27, 55681), (28, 55693), (30, 55747), (33, 55798), (36, 55834), (38, 55861), (41, 55888), (43, 55930), (45, 56047), (48, 56125), (49, 56143), (52, 56194), (53, 56227), (54, 56260), (56, 56317), (58, 56344), (59, 56386), (60, 56443), (61, 56467), (62, 56497), (63, 56515), (64, 56542), (66, 56644), (67, 56671), (68, 56683), (73, 56752), (75, 56761), (77, 56791), (78, 56797), (80, 56833), (82, 56848), (84, 56863), (86, 56884),

Gene: Ottawa_61 Start: 33948, Stop: 35849, Start Num: 2
Candidate Starts for Ottawa_61:
(1, 33855), (Start: 2 @33948 has 2 MA's), (3, 34035), (6, 34089), (7, 34140), (9, 34188), (10, 34212), (18, 34338), (19, 34347), (24, 34533), (25, 34575), (32, 34722), (34, 34743), (39, 34800), (41, 34824), (43, 34866), (44, 34902), (46, 35040), (52, 35142), (57, 35268), (58, 35292), (59, 35334), (67, 35619), (71, 35682), (76, 35712), (81, 35793), (83, 35808),

Gene: Salgado_95 Start: 54910, Stop: 56574, Start Num: 8
Candidate Starts for Salgado_95:
(Start: 8 @54910 has 9 MA's), (11, 54973), (14, 55033), (18, 55069), (20, 55114), (22, 55234), (26, 55327), (27, 55351), (28, 55363), (30, 55417), (33, 55468), (36, 55504), (38, 55531), (41, 55558), (43, 55600), (45, 55717), (48, 55795), (49, 55813), (52, 55864), (53, 55897), (54, 55930), (56, 55987), (58, 56014), (59, 56056), (60, 56113), (61, 56137), (62, 56167), (63, 56185), (64, 56212), (66, 56314), (67, 56341), (68, 56353), (73, 56422), (75, 56431), (77, 56461), (78, 56467), (80, 56503), (82, 56518), (84, 56533), (86, 56554),

Gene: Shrooms_93 Start: 54534, Stop: 56189, Start Num: 8
Candidate Starts for Shrooms_93:
(Start: 8 @54534 has 9 MA's), (11, 54597), (12, 54606), (13, 54627), (17, 54690), (21, 54828), (22, 54858), (26, 54951), (28, 54987), (30, 55041), (33, 55092), (35, 55116), (36, 55128), (38, 55155), (40, 55176), (41, 55182), (43, 55224), (45, 55341), (48, 55419), (49, 55437), (52, 55488), (53, 55521), (54, 55554), (55, 55602), (58, 55638), (59, 55680), (62, 55791), (63, 55809), (64, 55836), (65, 55863), (67, 55965), (73, 56046), (75, 56055), (76, 56058), (77, 56085), (78, 56091), (80, 56127), (82, 56142), (86, 56178),

Gene: Waltz_91 Start: 53322, Stop: 54977, Start Num: 8
Candidate Starts for Waltz_91:
(Start: 8 @53322 has 9 MA's), (11, 53385), (12, 53394), (17, 53478), (22, 53646), (26, 53739), (28, 53775), (30, 53829), (33, 53880), (36, 53916), (38, 53943), (41, 53970), (42, 54003), (43, 54012), (45, 54129), (48, 54207), (49, 54225), (52, 54276), (53, 54309), (54, 54342), (55, 54390), (58, 54426), (59, 54468), (62, 54579), (63, 54597), (64, 54624), (65, 54651), (66, 54726), (67, 54753), (72, 54819), (73, 54834), (75, 54843), (76, 54846), (77, 54873), (78, 54879), (82, 54930), (85, 54951), (86, 54966),

Gene: Wheelbite_90 Start: 54992, Stop: 56656, Start Num: 8
Candidate Starts for Wheelbite_90:
(Start: 8 @54992 has 9 MA's), (11, 55055), (12, 55064), (18, 55151), (20, 55196), (22, 55316), (26, 55409), (27, 55433), (28, 55445), (30, 55499), (33, 55550), (36, 55586), (38, 55613), (40, 55634), (41, 55640), (43, 55682), (45, 55799), (48, 55877), (49, 55895), (52, 55946), (53, 55979), (54, 56012), (56, 56069), (58, 56096), (59, 56138), (61, 56219), (62, 56249), (63, 56267), (64, 56294), (65, 56321), (66, 56396), (67, 56423), (68, 56435), (73, 56504), (74, 56510), (75, 56513), (76, 56516), (77, 56543), (78, 56549), (80, 56585), (82, 56600), (84, 56615), (86, 56636),