Pham 284029

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 284029 Report

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

Pham number 284029 has 33 members, 5 are drafts.

Phages represented in each track:
• Track 1 : Toniann_97
• Track 2 : Miskis_89, Dusty_93, Aphelion_96
• Track 3 : Norvs_97
• Track 4 : Obliviate_79
• Track 5 : BritBrat_74
• Track 6 : SoilAssassin_56, Attis_56, LordFarquaad_58
• Track 7 : DobbysSock_56
• Track 8 : Beenie_56
• Track 9 : Tuti_62
• Track 10 : Thimann_62
• Track 11 : Samman98_62, Invectra_64, Clark_61
• Track 12 : Faith5x5_56
• Track 13 : Halo3_7
• Track 14 : Malisha_82
• Track 15 : Spooky_82
• Track 16 : Crater_78, Leroy_79, Pepperoni_56, Horus_80, Phistory_77, Ecliptus_84
• Track 17 : Apricot_77, Lton_57
• Track 18 : ParvusTarda_94
• Track 19 : Colossa_60
• Track 20 : Colossa_61
• Track 21 : GAL1_62

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

The start number called the most often in the published annotations is 24, it was called in 14 of the 28 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Aphelion_96, Apricot_77, Crater_78, Dusty_93, Ecliptus_84, Halo3_7, Horus_80, Leroy_79, Lton_57, Miskis_89, Norvs_97, Obliviate_79, Pepperoni_56, Phistory_77, Toniann_97,

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

Genes that do not have the "Most Annotated" start:
• Attis_56, Beenie_56, BritBrat_74, Clark_61, Colossa_60, Colossa_61, DobbysSock_56, Faith5x5_56, GAL1_62, Invectra_64, LordFarquaad_58, Malisha_82, ParvusTarda_94, Samman98_62, SoilAssassin_56, Spooky_82, Thimann_62, Tuti_62,

Summary by start number:

Start 16:
• Found in 4 of 33 (12.1%) of genes in pham
• Manual Annotations of this start: 3 of 28
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Beenie_56 (CZ4), DobbysSock_56 (CZ4), Thimann_62 (CZ4), Tuti_62 (CZ4),

Start 21:
• Found in 1 of 33 (3.0%) of genes in pham
• No Manual Annotations of this start.
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Colossa_61 (KA),

Start 23:
• Found in 3 of 33 (9.1%) of genes in pham
• Manual Annotations of this start: 3 of 28
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Attis_56 (CZ2), LordFarquaad_58 (CZ2), SoilAssassin_56 (CZ2),

Start 24:
• Found in 15 of 33 (45.5%) of genes in pham
• Manual Annotations of this start: 14 of 28
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Aphelion_96 (CQ1), Apricot_77 (DN3), Crater_78 (DN3), Dusty_93 (CQ1), Ecliptus_84 (DN), Halo3_7 (DC1), Horus_80 (DN1), Leroy_79 (DN1), Lton_57 (CZ), Miskis_89 (CQ1), Norvs_97 (CQ1), Obliviate_79 (CV), Pepperoni_56 (CZ), Phistory_77 (DN1), Toniann_97 (CQ1),

Start 27:
• Found in 3 of 33 (9.1%) of genes in pham
• Manual Annotations of this start: 3 of 28
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Clark_61 (CZ4), Invectra_64 (CZ4), Samman98_62 (CZ4),

Start 33:
• Found in 1 of 33 (3.0%) of genes in pham
• Manual Annotations of this start: 1 of 28
• Called 100.0% of time when present
• Phage (with cluster) where this start called: ParvusTarda_94 (DV),

Start 39:
• Found in 4 of 33 (12.1%) of genes in pham

• Manual Annotations of this start: 3 of 28
• Called 100.0% of time when present
• Phage (with cluster) where this start called: BritBrat_74 (CY2), GAL1_62 (singleton), Malisha_82 (DN), Spooky_82 (DN2),

Start 45:
• Found in 2 of 33 (6.1%) of genes in pham
• Manual Annotations of this start: 1 of 28
• Called 50.0% of time when present
• Phage (with cluster) where this start called: Faith5x5_56 (CZ6),

Start 53:
• Found in 1 of 33 (3.0%) of genes in pham
• No Manual Annotations of this start.
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Colossa_60 (KA),

Summary by clusters:

There are 15 clusters represented in this pham: DN, CY2, KA, CZ2, CZ6, singleton, CZ4, CZ, DN1, DN3, DN2, DV, CQ1, CV, DC1,

Info for manual annotations of cluster CQ1:
•Start number 24 was manually annotated 5 times for cluster CQ1.

Info for manual annotations of cluster CV:
•Start number 24 was manually annotated 1 time for cluster CV.

Info for manual annotations of cluster CY2:
•Start number 39 was manually annotated 1 time for cluster CY2.

Info for manual annotations of cluster CZ:
•Start number 24 was manually annotated 1 time for cluster CZ.

Info for manual annotations of cluster CZ2:
•Start number 23 was manually annotated 3 times for cluster CZ2.

Info for manual annotations of cluster CZ4:
•Start number 16 was manually annotated 3 times for cluster CZ4.
•Start number 27 was manually annotated 3 times for cluster CZ4.

Info for manual annotations of cluster CZ6:
•Start number 45 was manually annotated 1 time for cluster CZ6.

Info for manual annotations of cluster DC1:
•Start number 24 was manually annotated 1 time for cluster DC1.

Info for manual annotations of cluster DN:
•Start number 24 was manually annotated 1 time for cluster DN.
•Start number 39 was manually annotated 1 time for cluster DN.

Info for manual annotations of cluster DN1:
•Start number 24 was manually annotated 3 times for cluster DN1.

Info for manual annotations of cluster DN2:
•Start number 39 was manually annotated 1 time for cluster DN2.

Info for manual annotations of cluster DN3:
•Start number 24 was manually annotated 2 times for cluster DN3.

Info for manual annotations of cluster DV:
•Start number 33 was manually annotated 1 time for cluster DV.

Gene Information:

Gene: Aphelion_96 Start: 59234, Stop: 59845, Start Num: 24
Candidate Starts for Aphelion_96:
(11, 59090), (20, 59216), (Start: 24 @59234 has 14 MA's), (41, 59315), (42, 59324), (43, 59336), (57, 59450), (61, 59504), (80, 59645), (89, 59714), (95, 59789), (97, 59807),

Gene: Apricot_77 Start: 44433, Stop: 44912, Start Num: 24
Candidate Starts for Apricot_77:
(Start: 24 @44433 has 14 MA's), (51, 44619), (57, 44682), (64, 44721), (89, 44811),

Gene: Attis_56 Start: 39408, Stop: 40010, Start Num: 23
Candidate Starts for Attis_56:
(14, 39342), (Start: 23 @39408 has 3 MA's), (25, 39420), (37, 39474), (48, 39564), (51, 39600), (61, 39705), (77, 39807), (80, 39846), (92, 39954), (94, 39975),

Gene: Beenie_56 Start: 40503, Stop: 41057, Start Num: 16
Candidate Starts for Beenie_56:
(Start: 16 @40503 has 3 MA's), (18, 40515), (22, 40539), (41, 40614), (57, 40731), (65, 40797), (75, 40860), (89, 40923), (98, 41037),

Gene: BritBrat_74 Start: 46520, Stop: 46924, Start Num: 39
Candidate Starts for BritBrat_74:
(Start: 39 @46520 has 3 MA's), (40, 46532), (56, 46631),

Gene: Clark_61 Start: 40299, Stop: 40820, Start Num: 27
Candidate Starts for Clark_61:
(19, 40254), (Start: 27 @40299 has 3 MA's), (31, 40311), (49, 40419), (57, 40494), (65, 40560), (75, 40623), (89, 40686), (98, 40800),

Gene: Colossa_60 Start: 39464, Stop: 39880, Start Num: 53
Candidate Starts for Colossa_60:
(2, 38885), (5, 38975), (8, 39044), (9, 39080), (10, 39089), (53, 39464), (54, 39476), (79, 39674), (87, 39725), (93, 39791), (94, 39812), (98, 39860),

Gene: Colossa_61 Start: 39877, Stop: 40413, Start Num: 21
Candidate Starts for Colossa_61:
(21, 39877), (25, 39895), (61, 40135), (80, 40276), (88, 40324), (91, 40354),

Gene: Crater_78 Start: 45182, Stop: 45649, Start Num: 24

Candidate Starts for Crater_78:
(Start: 24 @45182 has 14 MA's), (70, 45437), (73, 45449),

Gene: DobbysSock_56 Start: 39905, Stop: 40468, Start Num: 16
Candidate Starts for DobbysSock_56:
(Start: 16 @39905 has 3 MA's), (18, 39917), (22, 39941), (32, 39980), (Start: 45 @40046 has 1 MA's),
(46, 40052), (57, 40142), (65, 40208), (75, 40271), (89, 40334), (98, 40448),

Gene: Dusty_93 Start: 57740, Stop: 58351, Start Num: 24
Candidate Starts for Dusty_93:
(11, 57596), (20, 57722), (Start: 24 @57740 has 14 MA's), (41, 57821), (42, 57830), (43, 57842), (57,
57956), (61, 58010), (80, 58151), (89, 58220), (95, 58295), (97, 58313),

Gene: Ecliptus_84 Start: 48151, Stop: 48618, Start Num: 24
Candidate Starts for Ecliptus_84:
(Start: 24 @48151 has 14 MA's), (70, 48406), (73, 48418),

Gene: Faith5x5_56 Start: 35249, Stop: 35653, Start Num: 45
Candidate Starts for Faith5x5_56:
(22, 35126), (36, 35198), (Start: 45 @35249 has 1 MA's), (47, 35264), (74, 35471), (86, 35516), (89,
35558),

Gene: GAL1_62 Start: 40466, Stop: 40969, Start Num: 39
Candidate Starts for GAL1_62:
(26, 40409), (Start: 39 @40466 has 3 MA's), (40, 40478), (71, 40727), (89, 40850),

Gene: Halo3_7 Start: 3546, Stop: 4028, Start Num: 24
Candidate Starts for Halo3_7:
(12, 3414), (17, 3498), (Start: 24 @3546 has 14 MA's), (57, 3744), (69, 3795), (82, 3879), (84, 3888),
(85, 3891), (89, 3930), (90, 3939), (96, 3987),

Gene: Horus_80 Start: 47249, Stop: 47716, Start Num: 24
Candidate Starts for Horus_80:
(Start: 24 @47249 has 14 MA's), (70, 47504), (73, 47516),

Gene: Invectra_64 Start: 41872, Stop: 42393, Start Num: 27
Candidate Starts for Invectra_64:
(19, 41827), (Start: 27 @41872 has 3 MA's), (31, 41884), (49, 41992), (57, 42067), (65, 42133), (75,
42196), (89, 42259), (98, 42373),

Gene: Leroy_79 Start: 45444, Stop: 45911, Start Num: 24
Candidate Starts for Leroy_79:
(Start: 24 @45444 has 14 MA's), (70, 45699), (73, 45711),

Gene: LordFarquaad_58 Start: 39389, Stop: 39991, Start Num: 23
Candidate Starts for LordFarquaad_58:
(14, 39323), (Start: 23 @39389 has 3 MA's), (25, 39401), (37, 39455), (48, 39545), (51, 39581), (61,
39686), (77, 39788), (80, 39827), (92, 39935), (94, 39956),

Gene: Lton_57 Start: 34468, Stop: 34947, Start Num: 24
Candidate Starts for Lton_57:
(Start: 24 @34468 has 14 MA's), (51, 34654), (57, 34717), (64, 34756), (89, 34846),

Gene: Malisha_82 Start: 49477, Stop: 49902, Start Num: 39
Candidate Starts for Malisha_82:
(34, 49453), (38, 49474), (Start: 39 @49477 has 3 MA's), (40, 49489), (55, 49585), (66, 49669), (67, 49672), (89, 49807), (90, 49816),

Gene: Miskis_89 Start: 57403, Stop: 58014, Start Num: 24
Candidate Starts for Miskis_89:
(11, 57259), (20, 57385), (Start: 24 @57403 has 14 MA's), (41, 57484), (42, 57493), (43, 57505), (57, 57619), (61, 57673), (80, 57814), (89, 57883), (95, 57958), (97, 57976),

Gene: Norvs_97 Start: 58732, Stop: 59343, Start Num: 24
Candidate Starts for Norvs_97:
(20, 58714), (Start: 24 @58732 has 14 MA's), (41, 58813), (42, 58822), (43, 58834), (57, 58948), (61, 59002), (80, 59143), (89, 59212), (95, 59287), (97, 59305),

Gene: Obliviate_79 Start: 48067, Stop: 48606, Start Num: 24
Candidate Starts for Obliviate_79:
(Start: 24 @48067 has 14 MA's), (43, 48169), (81, 48421), (89, 48478),

Gene: ParvusTarda_94 Start: 64352, Stop: 64807, Start Num: 33
Candidate Starts for ParvusTarda_94:
(Start: 33 @64352 has 1 MA's), (35, 64364), (44, 64415), (57, 64505), (68, 64568), (89, 64661), (98, 64775),

Gene: Pepperoni_56 Start: 35924, Stop: 36391, Start Num: 24
Candidate Starts for Pepperoni_56:
(Start: 24 @35924 has 14 MA's), (70, 36179), (73, 36191),

Gene: Phistory_77 Start: 44347, Stop: 44814, Start Num: 24
Candidate Starts for Phistory_77:
(Start: 24 @44347 has 14 MA's), (70, 44602), (73, 44614),

Gene: Samman98_62 Start: 40402, Stop: 40923, Start Num: 27
Candidate Starts for Samman98_62:
(19, 40357), (Start: 27 @40402 has 3 MA's), (31, 40414), (49, 40522), (57, 40597), (65, 40663), (75, 40726), (89, 40789), (98, 40903),

Gene: SoilAssassin_56 Start: 39407, Stop: 40009, Start Num: 23
Candidate Starts for SoilAssassin_56:
(14, 39341), (Start: 23 @39407 has 3 MA's), (25, 39419), (37, 39473), (48, 39563), (51, 39599), (61, 39704), (77, 39806), (80, 39845), (92, 39953), (94, 39974),

Gene: Spooky_82 Start: 46716, Stop: 47147, Start Num: 39
Candidate Starts for Spooky_82:
(28, 46671), (Start: 39 @46716 has 3 MA's), (40, 46728), (50, 46800), (58, 46857), (59, 46860), (71, 46929), (89, 47052),

Gene: Thimann_62 Start: 40740, Stop: 41195, Start Num: 16
Candidate Starts for Thimann_62:
(6, 40554), (13, 40686), (15, 40734), (Start: 16 @40740 has 3 MA's), (18, 40752), (30, 40806), (35, 40815), (72, 40983), (89, 41061), (98, 41175),

Gene: Toniann_97 Start: 58672, Stop: 59283, Start Num: 24

Candidate Starts for Toniann_97:
(1, 57979), (3, 58339), (4, 58348), (7, 58453), (20, 58654), (Start: 24 @58672 has 14 MA's), (41, 58753), (42, 58762), (43, 58774), (57, 58888), (61, 58942), (80, 59083), (95, 59227), (97, 59245),

Gene: Tuti_62 Start: 41262, Stop: 41939, Start Num: 16
Candidate Starts for Tuti_62:
(6, 41076), (13, 41208), (15, 41256), (Start: 16 @41262 has 3 MA's), (18, 41274), (29, 41325), (48, 41460), (52, 41511), (60, 41586), (62, 41616), (63, 41625), (67, 41637), (76, 41706), (78, 41712), (83, 41751), (89, 41805), (98, 41919),