

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 4322 Report

This analysis was run 04/28/24 on database version 559.

Pham number 4322 has 21 members, 7 are drafts.

Phages represented in each track:

- Track 1 : GodonK_53
- Track 2 : Phendrix_53
- Track 3: BlueNGold_71, Boopy_73, Forza_73, Mareelih_71
- Track 4 : Sixama 66
- Track 5: Bloom_172, Talia1610_172, Racecar_170, Mimi_175, Patbob_168
- Track 6 : DunneganBoMo_164
- Track 7: SJReid 173
- Track 8 : Atuin 166
- Track 9 : A3Wally_156, PauloDiaboli_157
- Track 10 : Big4_147
- Track 11 : Zooman 135
- Track 12 : Cece 137
- Track 13 : Pumpernickel_152

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

The start number called the most often in the published annotations is 11, it was called in 5 of the 14 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

• BlueNGold_71, Boopy_73, Forza_73, Mareelih_71, Sixama_66,

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

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

• A3Wally_156, Atuin_166, Big4_147, Bloom_172, Cece_137, DunneganBoMo_164, GodonK_53, Mimi_175, Patbob_168, PauloDiaboli_157, Phendrix_53, Pumpernickel_152, Racecar_170, SJReid_173, Talia1610_172, Zooman_135,

Summary by start number:

Start 9:

• Found in 2 of 21 (9.5%) of genes in pham

- Manual Annotations of this start: 2 of 14
- Called 100.0% of time when present
- Phage (with cluster) where this start called: GodonK_53 (DK), Phendrix_53 (DK),

Start 10:

- Found in 1 of 21 (4.8%) of genes in pham
- Manual Annotations of this start: 1 of 14
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Pumpernickel_152 (GD4),

Start 11:

- Found in 5 of 21 (23.8%) of genes in pham
- Manual Annotations of this start: 5 of 14
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BlueNGold_71 (DS), Boopy_73 (DS), Forza_73 (DS), Mareelih_71 (DS), Sixama_66 (DS),

Start 12:

- Found in 5 of 21 (23.8%) of genes in pham
- Manual Annotations of this start: 1 of 14
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Bloom_172 (FC), Mimi_175 (FC), Patbob_168 (FC), Racecar_170 (FC), Talia1610_172 (FC),

Start 13:

- Found in 1 of 21 (4.8%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: SJReid 173 (FC),

Start 14:

- Found in 3 of 21 (14.3%) of genes in pham
- Manual Annotations of this start: 1 of 14
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Atuin_166 (FC), Cece_137 (GD3), DunneganBoMo_164 (FC),

Start 15:

- Found in 4 of 21 (19.0%) of genes in pham
- Manual Annotations of this start: 4 of 14
- Called 100.0% of time when present
- Phage (with cluster) where this start called: A3Wally_156 (GD1), Big4_147 (GD2), PauloDiaboli_157 (GD1), Zooman_135 (GD2),

Summary by clusters:

There are 7 clusters represented in this pham: GD1, GD2, GD3, GD4, DK, FC, DS,

Info for manual annotations of cluster DK:

•Start number 9 was manually annotated 2 times for cluster DK.

Info for manual annotations of cluster DS:

•Start number 11 was manually annotated 5 times for cluster DS.

Info for manual annotations of cluster FC:

•Start number 12 was manually annotated 1 time for cluster FC.

Info for manual annotations of cluster GD1:

Start number 15 was manually annotated 2 times for cluster GD1.

Info for manual annotations of cluster GD2:

•Start number 15 was manually annotated 2 times for cluster GD2.

Info for manual annotations of cluster GD3:

•Start number 14 was manually annotated 1 time for cluster GD3.

Info for manual annotations of cluster GD4:

•Start number 10 was manually annotated 1 time for cluster GD4.

Gene Information:

Gene: A3Wally_156 Start: 92113, Stop: 92586, Start Num: 15

Candidate Starts for A3Wally_156:

(Start: 15 @92113 has 4 MA's), (21, 92140), (25, 92191), (31, 92227), (50, 92398), (57, 92512), (58, 92518),

Gene: Atuin_166 Start: 111127, Stop: 111639, Start Num: 14

Candidate Starts for Atuin 166:

(4, 111040), (Start: 14 @111127 has 1 MA's), (22, 111193), (23, 111202), (35, 111271), (43, 111319), (52, 111451), (56, 111532), (57, 111553), (61, 111589),

Gene: Big4_147 Start: 90507, Stop: 91019, Start Num: 15

Candidate Starts for Big4 147:

(7, 90477), (Start: 15 @90507 has 4 MA's), (18, 90522), (25, 90585), (34, 90633), (57, 90939),

Gene: Bloom 172 Start: 111856, Stop: 112371, Start Num: 12

Candidate Starts for Bloom_172:

(Start: 12 @111856 has 1 MA's), (16, 111880), (41, 112048), (53, 112219), (57, 112288), (60, 112318),

Gene: BlueNGold 71 Start: 29354, Stop: 29881, Start Num: 11

Candidate Starts for BlueNGold 71:

(6, 29315), (Start: 11 @29354 has 5 MA's), (23, 29432), (25, 29438), (29, 29465), (35, 29504), (37, 29516), (40, 29534), (44, 29570), (46, 29588), (54, 29711), (57, 29774), (64, 29861), (65, 29867),

Gene: Boopy_73 Start: 29366, Stop: 29893, Start Num: 11

Candidate Starts for Boopy_73:

(6, 29327), (Start: 11 @29366 has 5 MA's), (23, 29444), (25, 29450), (29, 29477), (35, 29516), (37, 29528), (40, 29546), (44, 29582), (46, 29600), (54, 29723), (57, 29786), (64, 29873), (65, 29879),

Gene: Cece 137 Start: 93265, Stop: 93744, Start Num: 14

Candidate Starts for Cece 137:

(Start: 14 @93265 has 1 MA's), (25, 93343), (38, 93427), (45, 93475), (49, 93517), (50, 93550), (51, 93559), (55, 93604), (57, 93664), (59, 93688),

Gene: DunneganBoMo_164 Start: 108033, Stop: 108545, Start Num: 14

Candidate Starts for DunneganBoMo_164:

(Start: 14 @108033 has 1 MA's), (23, 108108), (35, 108177), (43, 108225), (50, 108339), (52, 108357), (57, 108459), (61, 108495),

Gene: Forza_73 Start: 29282, Stop: 29809, Start Num: 11

Candidate Starts for Forza 73:

(6, 29243), (Start: 11 @29282 has 5 MA's), (23, 29360), (25, 29366), (29, 29393), (35, 29432), (37, 29444), (40, 29462), (44, 29498), (46, 29516), (54, 29639), (57, 29702), (64, 29789), (65, 29795),

Gene: GodonK_53 Start: 18211, Stop: 18723, Start Num: 9

Candidate Starts for GodonK 53:

(1, 18070), (Start: 9 @ 18211 has 2 MA's), (17, 18244), (19, 18247), (24, 18304), (25, 18307), (26, 18313), (28, 18331), (30, 18346), (32, 18358), (33, 18361), (36, 18385), (37, 18388), (42, 18427), (44, 18442), (47, 18469), (48, 18478), (49, 18499), (57, 18646), (58, 18652), (62, 18688),

Gene: Mareelih_71 Start: 28784, Stop: 29311, Start Num: 11

Candidate Starts for Mareelih 71:

(6, 28745), (Start: 11 @28784 has 5 MA's), (23, 28862), (25, 28868), (29, 28895), (35, 28934), (37, 28946), (40, 28964), (44, 29000), (46, 29018), (54, 29141), (57, 29204), (64, 29291), (65, 29297),

Gene: Mimi_175 Start: 111481, Stop: 111996, Start Num: 12

Candidate Starts for Mimi 175:

(Start: 12 @111481 has 1 MA's), (16, 111505), (41, 111673), (53, 111844), (57, 111913), (60, 111943),

Gene: Patbob 168 Start: 112037, Stop: 112552, Start Num: 12

Candidate Starts for Patbob 168:

(Start: 12 @112037 has 1 MA's), (16, 112061), (41, 112229), (53, 112400), (57, 112469), (60, 112499),

Gene: PauloDiaboli_157 Start: 90422, Stop: 90895, Start Num: 15

Candidate Starts for PauloDiaboli 157:

(Start: 15 @90422 has 4 MA's), (21, 90449), (25, 90500), (31, 90536), (50, 90707), (57, 90821), (58, 90827),

Gene: Phendrix_53 Start: 18224, Stop: 18736, Start Num: 9

Candidate Starts for Phendrix_53:

(1, 18083), (Start: 9 @18224 has 2 MA's), (17, 18257), (19, 18260), (20, 18266), (24, 18317), (26, 18326), (27, 18329), (28, 18344), (30, 18359), (32, 18371), (33, 18374), (36, 18398), (37, 18401), (42, 18440), (44, 18455), (48, 18491), (49, 18512), (57, 18659), (58, 18665), (62, 18701),

Gene: Pumpernickel 152 Start: 92449, Stop: 92964, Start Num: 10

Candidate Starts for Pumpernickel 152:

(8, 92431), (Start: 10 @92449 has 1 MA's), (23, 92533), (26, 92545), (50, 92746), (57, 92860), (58, 92866), (63, 92941),

Gene: Racecar_170 Start: 112447, Stop: 112962, Start Num: 12

Candidate Starts for Racecar_170:

(Start: 12 @112447 has 1 MA's), (16, 112471), (41, 112639), (53, 112810), (57, 112879), (60, 112909),

Gene: SJReid_173 Start: 102502, Stop: 103020, Start Num: 13

Candidate Starts for SJReid_173:

(2, 102382), (3, 102400), (5, 102457), (13, 102502), (23, 102580), (35, 102649), (39, 102670), (43, 102697), (48, 102748), (57, 102931),

Gene: Sixama_66 Start: 27325, Stop: 27849, Start Num: 11

Candidate Starts for Sixama_66:

(Start: 11 @27325 has 5 MA's), (23, 27403), (29, 27436), (35, 27475), (50, 27631), (54, 27682), (57, 27745), (58, 27751), (64, 27829),

Gene: Talia1610_172 Start: 111858, Stop: 112373, Start Num: 12

Candidate Starts for Talia1610_172:

(Start: 12 @111858 has 1 MA's), (16, 111882), (41, 112050), (53, 112221), (57, 112290), (60, 112320),

Gene: Zooman_135 Start: 87406, Stop: 87918, Start Num: 15

Candidate Starts for Zooman_135:

(Start: 15 @87406 has 4 MA's), (18, 87421), (25, 87484), (34, 87532), (57, 87838),