# Pham 289689


1: LeoJr_207
2: LeoJr_206
3: WaddleDee_192 + 1
4: BooTeria_206 + 4
5: BooTeria_204 + 2
6: ReginaGlobina_209
7: Panchaali_199
8: Atuin_197
9: Ellewin_201 + 1
10: Stewart25555_199
11: ReginaGlobina_210
12: KSunshine22_202
13: Panchaali_198
14: Ellewin_203
15: Racecar_204
16: Atuin_198
17: Stewart25555_200
18: Laure_206

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 289689 Report

This analysis was run 03/28/26 on database version 641.

Pham number 289689 has 26 members, 17 are drafts.

Phages represented in each track:
• Track 1 : LeoJr_207
• Track 2 : LeoJr_206
• Track 3 : WaddleDee_192, DunneganBoMo_196
• Track 4 : BooTeria_206, WaddleDee_194, DunneganBoMo_198, Emmetator_201, Artu_200
• Track 5 : BooTeria_204, Artu_198, Emmetator_199
• Track 6 : ReginaGlobina_209
• Track 7 : Panchaali_199
• Track 8 : Atuin_197
• Track 9 : Ellewin_201, KSunshine22_200
• Track 10 : Stewart25555_199
• Track 11 : ReginaGlobina_210
• Track 12 : KSunshine22_202
• Track 13 : Panchaali_198
• Track 14 : Ellewin_203
• Track 15 : Racecar_204
• Track 16 : Atuin_198
• Track 17 : Stewart25555_200
• Track 18 : Laure_206

***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 5 of the 9 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Artu_200, Atuin_198, BooTeria_206, DunneganBoMo_198, Emmetator_201, LeoJr_207, Panchaali_199, Racecar_204, Stewart25555_200, WaddleDee_194,

Genes that have the "Most Annotated" start but do not call it:
• ReginaGlobina_210,

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

• Artu_198, Atuin_197, BooTeria_204, DunneganBoMo_196, Ellewin_201, Ellewin_203, Emmetator_199, KSunshine22_200, KSunshine22_202, Laure_206, LeoJr_206, Panchaali_198, ReginaGlobina_209, Stewart25555_199, WaddleDee_192,

**Summary by start number:**

Start 3:
• Found in 1 of 26 ( 3.8% ) of genes in pham
• No Manual Annotations of this start.
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Laure_206 (UNK),

Start 5:
• Found in 5 of 26 ( 19.2% ) of genes in pham
• Manual Annotations of this start: 2 of 9
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Atuin_197 (FC), LeoJr_206 (FC), Panchaali_198 (FC), ReginaGlobina_209 (FC), Stewart25555_199 (FC),

Start 6:
• Found in 7 of 26 ( 26.9% ) of genes in pham
• Manual Annotations of this start: 2 of 9
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Artu_198 (FC), BooTeria_204 (FC), DunneganBoMo_196 (FC), Ellewin_201 (FC), Emmetator_199 (FC), KSunshine22_200 (FC), WaddleDee_192 (FC),

Start 7:
• Found in 2 of 26 ( 7.7% ) of genes in pham
• No Manual Annotations of this start.
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Ellewin_203 (FC), KSunshine22_202 (FC),

Start 8:
• Found in 11 of 26 ( 42.3% ) of genes in pham
• Manual Annotations of this start: 5 of 9
• Called 90.9% of time when present
• Phage (with cluster) where this start called: Artu_200 (FC), Atuin_198 (FC), BooTeria_206 (FC), DunneganBoMo_198 (FC), Emmetator_201 (FC), LeoJr_207 (FC), Panchaali_199 (FC), Racecar_204 (FC), Stewart25555_200 (FC), WaddleDee_194 (FC),

Start 11:
• Found in 3 of 26 ( 11.5% ) of genes in pham
• No Manual Annotations of this start.
• Called 33.3% of time when present
• Phage (with cluster) where this start called: ReginaGlobina_210 (FC),

**Summary by clusters:**

There are 2 clusters represented in this pham: UNK, FC,

Info for manual annotations of cluster FC:
•Start number 5 was manually annotated 2 times for cluster FC.
•Start number 6 was manually annotated 2 times for cluster FC.
•Start number 8 was manually annotated 5 times for cluster FC.

### *Gene Information:*

Gene: Artu_198 Start: 145725, Stop: 145988, Start Num: 6
Candidate Starts for Artu_198:
(Start: 6 @145725 has 2 MA's), (31, 145956), (32, 145962),

Gene: Artu_200 Start: 146149, Stop: 146400, Start Num: 8
Candidate Starts for Artu_200:
(Start: 8 @146149 has 5 MA's), (10, 146161), (14, 146182), (16, 146215), (17, 146218), (20, 146248), (23, 146269), (25, 146296), (30, 146368),

Gene: Atuin_197 Start: 139593, Stop: 139862, Start Num: 5
Candidate Starts for Atuin_197:
(2, 139542), (Start: 5 @139593 has 2 MA's), (16, 139674),

Gene: Atuin_198 Start: 139859, Stop: 140113, Start Num: 8
Candidate Starts for Atuin_198:
(Start: 8 @139859 has 5 MA's), (11, 139874), (25, 140009), (26, 140024),

Gene: BooTeria_206 Start: 145656, Stop: 145907, Start Num: 8
Candidate Starts for BooTeria_206:
(Start: 8 @145656 has 5 MA's), (10, 145668), (14, 145689), (16, 145722), (17, 145725), (20, 145755), (23, 145776), (25, 145803), (30, 145875),

Gene: BooTeria_204 Start: 145232, Stop: 145495, Start Num: 6
Candidate Starts for BooTeria_204:
(Start: 6 @145232 has 2 MA's), (31, 145463), (32, 145469),

Gene: DunneganBoMo_198 Start: 145120, Stop: 145371, Start Num: 8
Candidate Starts for DunneganBoMo_198:
(Start: 8 @145120 has 5 MA's), (10, 145132), (14, 145153), (16, 145186), (17, 145189), (20, 145219), (23, 145240), (25, 145267), (30, 145339),

Gene: DunneganBoMo_196 Start: 144696, Stop: 144959, Start Num: 6
Candidate Starts for DunneganBoMo_196:
(Start: 6 @144696 has 2 MA's), (29, 144882), (31, 144927), (32, 144933),

Gene: Ellewin_201 Start: 143962, Stop: 144225, Start Num: 6
Candidate Starts for Ellewin_201:
(Start: 6 @143962 has 2 MA's), (16, 144037), (31, 144193), (32, 144199),

Gene: Ellewin_203 Start: 144386, Stop: 144640, Start Num: 7
Candidate Starts for Ellewin_203:
(7, 144386), (22, 144506), (25, 144536), (26, 144551),

Gene: Emmetator_201 Start: 144519, Stop: 144770, Start Num: 8
Candidate Starts for Emmetator_201:
(Start: 8 @144519 has 5 MA's), (10, 144531), (14, 144552), (16, 144585), (17, 144588), (20, 144618), (23, 144639), (25, 144666), (30, 144738),

Gene: Emmetator_199 Start: 144095, Stop: 144358, Start Num: 6
Candidate Starts for Emmetator_199:
(Start: 6 @144095 has 2 MA's), (31, 144326), (32, 144332),

Gene: KSunshine22_202 Start: 143797, Stop: 144051, Start Num: 7
Candidate Starts for KSunshine22_202:
(7, 143797), (15, 143836), (22, 143917), (25, 143947), (26, 143962),

Gene: KSunshine22_200 Start: 143373, Stop: 143636, Start Num: 6
Candidate Starts for KSunshine22_200:
(Start: 6 @143373 has 2 MA's), (16, 143448), (31, 143604), (32, 143610),

Gene: Laure_206 Start: 129859, Stop: 130134, Start Num: 3
Candidate Starts for Laure_206:
(3, 129859), (19, 129967), (24, 130018),

Gene: LeoJr_207 Start: 140033, Stop: 140284, Start Num: 8
Candidate Starts for LeoJr_207:
(Start: 8 @140033 has 5 MA's), (20, 140138), (25, 140186), (30, 140252), (32, 140261), (33, 140264),

Gene: LeoJr_206 Start: 139767, Stop: 140036, Start Num: 5
Candidate Starts for LeoJr_206:
(2, 139716), (Start: 5 @139767 has 2 MA's),

Gene: Panchaali_199 Start: 145723, Stop: 145974, Start Num: 8
Candidate Starts for Panchaali_199:
(Start: 8 @145723 has 5 MA's), (11, 145738), (13, 145753), (14, 145756), (17, 145792), (19, 145813), (20, 145822), (21, 145834), (25, 145870), (26, 145885),

Gene: Panchaali_198 Start: 145460, Stop: 145726, Start Num: 5
Candidate Starts for Panchaali_198:
(1, 145406), (Start: 5 @145460 has 2 MA's), (31, 145694),

Gene: Racecar_204 Start: 141268, Stop: 141534, Start Num: 8
Candidate Starts for Racecar_204:
(4, 141256), (Start: 8 @141268 has 5 MA's), (12, 141295), (18, 141358),

Gene: ReginaGlobina_209 Start: 141050, Stop: 141319, Start Num: 5
Candidate Starts for ReginaGlobina_209:
(2, 140999), (Start: 5 @141050 has 2 MA's), (16, 141131), (27, 141236),

Gene: ReginaGlobina_210 Start: 141331, Stop: 141570, Start Num: 11
Candidate Starts for ReginaGlobina_210:
(Start: 8 @141316 has 5 MA's), (11, 141331), (25, 141466), (28, 141496),

Gene: Stewart25555_199 Start: 142742, Stop: 143011, Start Num: 5
Candidate Starts for Stewart25555_199:

(Start: 5 @142742 has 2 MA's), (9, 142757), (31, 142979),

Gene: Stewart25555_200 Start: 143008, Stop: 143268, Start Num: 8
Candidate Starts for Stewart25555_200:
(Start: 8 @143008 has 5 MA's), (13, 143038), (25, 143164),

Gene: WaddleDee_192 Start: 143157, Stop: 143420, Start Num: 6
Candidate Starts for WaddleDee_192:
(Start: 6 @143157 has 2 MA's), (29, 143343), (31, 143388), (32, 143394),

Gene: WaddleDee_194 Start: 143581, Stop: 143832, Start Num: 8
Candidate Starts for WaddleDee_194:
(Start: 8 @143581 has 5 MA's), (10, 143593), (14, 143614), (16, 143647), (17, 143650), (20, 143680), (23, 143701), (25, 143728), (30, 143800),