Pham 200719

≫» % 1 ×	√ √ √ √	۴ ۴ ۴ ۱	
1: Godon K_177 + 1			
	<u>к</u> о ко	Ŷ Ŷ	Ŷ
2: Воору_165 + 3			
γ ⊳ 6 1 ∧	N2 N3 N3		
B: Sixama_164			
	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	Ŷ	
4: GMA2_60			
	<b>↓ ↓</b> 5	20	
5: Dodo_111 + 2			
	<u>ب</u> ه به		
6: Big <b>ቆ_</b> 100 + 1			
, , , , , , , , , , , , , , , , , , ,	<b>↓</b> ↓5		
7: Cec <mark>e_</mark> 94			
	<b>,</b> ⊳ ,∕5,6	Ŷ ^{\$}	
B: Pumpernickel_108			

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 200719 Report

This analysis was run 01/18/25 on database version 583.

Pham number 200719 has 15 members, 2 are drafts.

Phages represented in each track:

- Track 1 : GodonK_177, Phendrix_166
- Track 2 : Boopy_165, BlueNGold_162, Mareelih_163, Forza_166
- Track 3 : Sixama_164
- Track 4 : GMA2_60
- Track 5 : Dodo_111, PauloDiaboli_111, A3Wally_111
- Track 6 : Big4_100, Zooman_95
- Track 7 : Cece_94
- Track 8 : Pumpernickel_108

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

The start number called the most often in the published annotations is 3, it was called in 6 of the 13 non-draft genes in the pham.

Genes that call this "Most Annotated" start: • BlueNGold_162, Boopy_165, Forza_166, GodonK_177, Mareelih_163, Phendrix_166,

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

Genes that do not have the "Most Annotated" start: • A3Wally_111, Big4_100, Cece_94, Dodo_111, GMA2_60, PauloDiaboli_111, Pumpernickel_108, Sixama_164, Zooman_95,

### Summary by start number:

Start 1:

- Found in 7 of 15 (46.7%) of genes in pham
- Manual Annotations of this start: 6 of 13
- Called 100.0% of time when present

• Phage (with cluster) where this start called: A3Wally_111 (GD1), Big4_100 (GD2), Cece_94 (GD3), Dodo_111 (GD1), PauloDiaboli_111 (GD1), Pumpernickel_108 (GD4), Zooman_95 (GD2),

Start 2:

- Found in 2 of 15 (13.3%) of genes in pham
- Manual Annotations of this start: 1 of 13
- Called 100.0% of time when present
- Phage (with cluster) where this start called: GMA2_60 (DS), Sixama_164 (DS),

Start 3:

- Found in 6 of 15 (40.0%) of genes in pham
- Manual Annotations of this start: 6 of 13
- Called 100.0% of time when present

• Phage (with cluster) where this start called: BlueNGold_162 (DS), Boopy_165 (DS), Forza_166 (DS), GodonK_177 (DK), Mareelih_163 (DS), Phendrix_166 (DK),

#### Summary by clusters:

There are 6 clusters represented in this pham: GD1, GD2, GD3, GD4, DK, DS,

Info for manual annotations of cluster DK: •Start number 3 was manually annotated 2 times for cluster DK.

Info for manual annotations of cluster DS:Start number 2 was manually annotated 1 time for cluster DS.Start number 3 was manually annotated 4 times for cluster DS.

Info for manual annotations of cluster GD1: •Start number 1 was manually annotated 2 times for cluster GD1.

Info for manual annotations of cluster GD2: •Start number 1 was manually annotated 2 times for cluster GD2.

Info for manual annotations of cluster GD3: •Start number 1 was manually annotated 1 time for cluster GD3.

Info for manual annotations of cluster GD4: •Start number 1 was manually annotated 1 time for cluster GD4.

### Gene Information:

Gene: A3Wally_111 Start: 75589, Stop: 74876, Start Num: 1 Candidate Starts for A3Wally_111: (Start: 1 @75589 has 6 MA's), (14, 75355), (15, 75334), (20, 75127),

Gene: Big4_100 Start: 74707, Stop: 74009, Start Num: 1 Candidate Starts for Big4_100: (Start: 1 @74707 has 6 MA's), (14, 74473), (15, 74452),

Gene: BlueNGold_162 Start: 92754, Stop: 92056, Start Num: 3 Candidate Starts for BlueNGold_162: (Start: 3 @92754 has 6 MA's), (7, 92625), (8, 92607), (15, 92511), (18, 92442), (22, 92271), (25, 92187), (26, 92076), Gene: Boopy_165 Start: 92765, Stop: 92067, Start Num: 3 Candidate Starts for Boopy_165: (Start: 3 @92765 has 6 MA's), (7, 92636), (8, 92618), (15, 92522), (18, 92453), (22, 92282), (25, 92198), (26, 92087), Gene: Cece_94 Start: 77750, Stop: 77037, Start Num: 1 Candidate Starts for Cece 94: (Start: 1 @77750 has 6 MA's), (10, 77558), (14, 77516), (15, 77495), Gene: Dodo 111 Start: 75911, Stop: 75198, Start Num: 1 Candidate Starts for Dodo 111: (Start: 1 @75911 has 6 MA's), (14, 75677), (15, 75656), (20, 75449), Gene: Forza_166 Start: 92682, Stop: 91984, Start Num: 3 Candidate Starts for Forza_166: (Start: 3 @92682 has 6 MA's), (7, 92553), (8, 92535), (15, 92439), (18, 92370), (22, 92199), (25, 92115), (26, 92004), Gene: GMA2_60 Start: 63482, Stop: 62877, Start Num: 2 Candidate Starts for GMA2 60: (Start: 2 @63482 has 1 MA's), (7, 63353), (9, 63332), (13, 63266), (15, 63239), (17, 63182), (22, 62999), Gene: GodonK_177 Start: 88708, Stop: 88028, Start Num: 3 Candidate Starts for GodonK_177: (Start: 3 @88708 has 6 MA's), (4, 88702), (5, 88627), (7, 88579), (11, 88516), (15, 88465), (17, 88408), (18, 88396), (19, 88270), (23, 88174), (24, 88159), (25, 88132), Gene: Mareelih 163 Start: 92200, Stop: 91502, Start Num: 3 Candidate Starts for Mareelih_163: (Start: 3 @92200 has 6 MA's), (7, 92071), (8, 92053), (15, 91957), (18, 91888), (22, 91717), (25, 91633), (26, 91522), Gene: PauloDiaboli_111 Start: 74946, Stop: 74233, Start Num: 1 Candidate Starts for PauloDiaboli 111: (Start: 1 @74946 has 6 MA's), (14, 74712), (15, 74691), (20, 74484), Gene: Phendrix 166 Start: 87805, Stop: 87125, Start Num: 3 Candidate Starts for Phendrix 166: (Start: 3 @87805 has 6 MA's), (4, 87799), (5, 87724), (7, 87676), (11, 87613), (15, 87562), (17, 87505), (18, 87493), (19, 87367), (23, 87271), (24, 87256), (25, 87229), Gene: Pumpernickel 108 Start: 76513, Stop: 75818, Start Num: 1 Candidate Starts for Pumpernickel 108: (Start: 1 @76513 has 6 MA's), (6, 76414), (14, 76279), (15, 76258), (16, 76249), (21, 76027), Gene: Sixama_164 Start: 92202, Stop: 91534, Start Num: 2 Candidate Starts for Sixama_164: (Start: 2 @92202 has 1 MA's), (4, 92196), (5, 92121), (7, 92073), (11, 92010), (12, 92004), (13, 91986), (15, 91959),

Gene: Zooman_95 Start: 72552, Stop: 71857, Start Num: 1

Candidate Starts for Zooman_95: (Start: 1 @72552 has 6 MA's), (14, 72318), (15, 72297),