Pham 216465

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1: Weirdo19_91				
	1/6	16 M	പ്പുര	*
2: Eesa_28				
	,° Д	1× 1° 1°	°6	
3: Vulpecula_29 + 1				
	XXX A	10	~ ³ 99	A` A2
4: Abidatro_29	, <u></u> ,0	89. A.	~?? ????	
		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	15 <i>4</i> 50	8
5: Toad24_30	\$ P	r^⊳ r>°	%	
6: Ruchi_29	,°	1 ⁶ 1 ²	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	×
7: KendraB23_32 + 2	x 100	1 ⁰ 199	%	×.
B: Jamun_28	× 2	Å Å Å	<u>م</u> م	
ව: TaylorSipht_29	ie y	2 ¹⁴ 29	Ŷ	
10: Chickaboom_30	N ⁶	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	જેજ	*
11: Westrich_31				
III. Westlich_31	N 22	* * *	ŵ	
12: Brynnie_29				
5 1	,o	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	reference of the second	Å
13: Orcanus_29				
_	~~ ~~ ~?	or O	~ ³ %	
14: Galaxy_30	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~			
	₹ <b>₽</b>	1 ⁴ 16	°¢ I I I I I I I I I I I I I I I I I I I	
15: Kuleana_32	× 2	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		
16: Atlantica_30 + 4	, <u>,</u> , ,	2 ⁶		
17: KHumphrey_30	1 ⁵⁰ 22	\$° 1.	<u>ښ</u> ې کې	
18: Catfish_49	~	\$ \$	ng)r	
19: Octobien14_72	NN 20	က်	>	
20: Nicole72_53				

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 216465 Report

This analysis was run 02/22/25 on database version 588.

Pham number 216465 has 27 members, 11 are drafts.

Phages represented in each track:

- Track 1 : Weirdo19 91
- Track 2 : Eesa 28
- Track 3 : Vulpecula_29, Basilisk_30
- Track 4 : Abidatro 29
- Track 5 : Toad24 30
- Track 6 : Ruchi 29
- Track 7 : KendraB23 32, Gravel 31, Pelletreau 31
- Track 8 : Jamun 28
- Track 9 : TaylorSipht_29
- Track 10 : Chickaboom 30
- Track 11 : Westrich 31
- Track 12 : Brynnie 29
- Track 13 : Orcanus_29 Track 14 : Galaxy_30
- Track 15 : Kuleana 32
- Track 16 : Atlantica 30, Camara 30, Rattail 30, HamCheese 29, DanHam62 30
- Track 17 : KHumphrey_30
- Track 18 : Catfish 49
- Track 19 : Octobien14 72
- Track 20 : Nicole72 53

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

The start number called the most often in the published annotations is 16, it was called in 9 of the 16 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

• Basilisk_30, Brynnie_29, Chickaboom_30, Eesa_28, Jamun_28, Orcanus_29, Ruchi_29, TaylorSipht_29, Toad24_30, Vulpecula_29,

Genes that have the "Most Annotated" start but do not call it: Abidatro_29, Gravel_31, KendraB23_32, Pelletreau_31, Westrich_31,

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

• Atlantica_30, Camara_30, Catfish_49, DanHam62_30, Galaxy_30, HamCheese_29, KHumphrey_30, Kuleana_32, Nicole72_53, Octobien14_72, Rattail_30, Weirdo19_91,

# Summary by start number:

Start 8:

- Found in 1 of 27 (3.7%) of genes in pham
- Manual Annotations of this start: 1 of 16
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Kuleana_32 (AS2),

#### Start 11:

- Found in 1 of 27 (3.7%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Weirdo19_91 (AH),

#### Start 13:

- Found in 1 of 27 (3.7%) of genes in pham
- Manual Annotations of this start: 1 of 16
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Galaxy_30 (AS1),

## Start 14:

- Found in 2 of 27 (7.4%) of genes in pham
- Manual Annotations of this start: 1 of 16
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Abidatro_29 (AS1),

#### Start 15:

- Found in 1 of 27 (3.7%) of genes in pham
- Manual Annotations of this start: 1 of 16
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Catfish_49 (CU5),

#### Start 16:

- Found in 15 of 27 (55.6%) of genes in pham
- Manual Annotations of this start: 9 of 16
- Called 66.7% of time when present

• Phage (with cluster) where this start called: Basilisk_30 (AS1), Brynnie_29 (AS1), Chickaboom 30 (AS1), Eesa 28 (AS1), Jamun 28 (AS1), Orcanus 29 (AS1),

Ruchi 29 (AS1), TaylorSipht 29 (AS1), Toad24 30 (AS1), Vulpecula 29 (AS1),

#### Start 19:

- Found in 1 of 27 (3.7%) of genes in pham
- Manual Annotations of this start: 1 of 16
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Octobien14_72 (DU1),

#### Start 20:

- Found in 1 of 27 (3.7%) of genes in pham
- Manual Annotations of this start: 1 of 16

- Called 100.0% of time when present
- Phage (with cluster) where this start called: Nicole72_53 (EC),

#### Start 22:

- Found in 16 of 27 (59.3%) of genes in pham
- Manual Annotations of this start: 1 of 16
- Called 37.5% of time when present

• Phage (with cluster) where this start called: Atlantica_30 (AS3), Camara_30 (AS3), DanHam62_30 (AS3), HamCheese_29 (AS3), KHumphrey_30 (AS3), Rattail_30 (AS3),

Start 26:

- Found in 24 of 27 (88.9%) of genes in pham
- No Manual Annotations of this start.
- Called 16.7% of time when present

• Phage (with cluster) where this start called: Gravel_31 (AS1), KendraB23_32 (AS1), Pelletreau 31 (AS1) Westrich 31 (AS1)

Pelletreau_31 (AS1), Westrich_31 (AS1),

## Summary by clusters:

There are 7 clusters represented in this pham: AS3, AS2, AS1, AH, CU5, EC, DU1,

Info for manual annotations of cluster AS1:

•Start number 13 was manually annotated 1 time for cluster AS1.

•Start number 14 was manually annotated 1 time for cluster AS1.

•Start number 16 was manually annotated 9 times for cluster AS1.

Info for manual annotations of cluster AS2:

•Start number 8 was manually annotated 1 time for cluster AS2.

Info for manual annotations of cluster AS3: •Start number 22 was manually annotated 1 time for cluster AS3.

Info for manual annotations of cluster CU5: •Start number 15 was manually annotated 1 time for cluster CU5.

Info for manual annotations of cluster DU1: •Start number 19 was manually annotated 1 time for cluster DU1.

Info for manual annotations of cluster EC: •Start number 20 was manually annotated 1 time for cluster EC.

#### Gene Information:

Gene: Abidatro_29 Start: 21393, Stop: 20860, Start Num: 14 Candidate Starts for Abidatro_29: (6, 21495), (Start: 14 @21393 has 1 MA's), (Start: 16 @21390 has 9 MA's), (Start: 22 @21357 has 1 MA's), (26, 21261), (33, 21105), (36, 21096), (41, 20922), (42, 20895),

Gene: Atlantica_30 Start: 20838, Stop: 20518, Start Num: 22

Candidate Starts for Atlantica 30: (2, 21273), (4, 21123), (9, 20928), (17, 20871), (Start: 22 @20838 has 1 MA's), (26, 20742), Gene: Basilisk_30 Start: 22338, Stop: 21847, Start Num: 16 Candidate Starts for Basilisk_30: (Start: 16 @22338 has 9 MA's), (Start: 22 @22305 has 1 MA's), (24, 22233), (26, 22209), (28, 22164), (36, 22044),Gene: Brynnie_29 Start: 22216, Stop: 21725, Start Num: 16 Candidate Starts for Brynnie 29: (9, 22267), (Start: 16 @22216 has 9 MA's), (Start: 22 @22183 has 1 MA's), (24, 22111), (26, 22087), (28, 22042), (36, 21922), Gene: Camara_30 Start: 20839, Stop: 20519, Start Num: 22 Candidate Starts for Camara_30: (2, 21274), (4, 21124), (9, 20929), (17, 20872), (Start: 22 @20839 has 1 MA's), (26, 20743), Gene: Catfish_49 Start: 34051, Stop: 34401, Start Num: 15 Candidate Starts for Catfish 49: (Start: 15 @34051 has 1 MA's), (21, 34084), (26, 34174), (27, 34198), (35, 34324), (39, 34384), Gene: Chickaboom_30 Start: 21353, Stop: 20883, Start Num: 16 Candidate Starts for Chickaboom 30: (5, 21479), (7, 21440), (Start: 16 @21353 has 9 MA's), (Start: 22 @21320 has 1 MA's), (24, 21248), (26, 21224), (33, 21068), Gene: DanHam62_30 Start: 20838, Stop: 20518, Start Num: 22 Candidate Starts for DanHam62 30: (2, 21273), (4, 21123), (9, 20928), (17, 20871), (Start: 22 @20838 has 1 MA's), (26, 20742), Gene: Eesa_28 Start: 22106, Stop: 21612, Start Num: 16 Candidate Starts for Eesa 28: (7, 22193), (Start: 16 @22106 has 9 MA's), (26, 21977), (28, 21932), (29, 21926), (33, 21821), (36, 21812), (41, 21665), Gene: Galaxy_30 Start: 21976, Stop: 21491, Start Num: 13 Candidate Starts for Galaxy_30: (Start: 13 @21976 has 1 MA's), (18, 21955), (Start: 22 @21931 has 1 MA's), (26, 21835), (33, 21679), (36, 21670), Gene: Gravel 31 Start: 21946, Stop: 21581, Start Num: 26 Candidate Starts for Gravel_31: (7, 22162), (Start: 16 @22075 has 9 MA's), (26, 21946), (28, 21901), (29, 21895), (33, 21790), (36, 21781), (41, 21634), Gene: HamCheese_29 Start: 20823, Stop: 20503, Start Num: 22 Candidate Starts for HamCheese 29: (2, 21258), (4, 21108), (9, 20913), (17, 20856), (Start: 22 @20823 has 1 MA's), (26, 20727), Gene: Jamun 28 Start: 21237, Stop: 20692, Start Num: 16 Candidate Starts for Jamun 28: (7, 21321), (Start: 14 @21240 has 1 MA's), (Start: 16 @21237 has 9 MA's), (Start: 22 @21204 has 1 MA's), (26, 21108), (28, 21063), (29, 21057), (36, 20943), (41, 20766),

Gene: KHumphrey_30 Start: 20837, Stop: 20517, Start Num: 22 Candidate Starts for KHumphrey_30: (1, 21422), (2, 21272), (4, 21122), (9, 20927), (17, 20870), (Start: 22 @20837 has 1 MA's), (26, 20741),

Gene: KendraB23_32 Start: 22134, Stop: 21769, Start Num: 26 Candidate Starts for KendraB23_32: (7, 22350), (Start: 16 @22263 has 9 MA's), (26, 22134), (28, 22089), (29, 22083), (33, 21978), (36, 21969), (41, 21822),

Gene: Kuleana_32 Start: 21579, Stop: 21160, Start Num: 8 Candidate Starts for Kuleana_32: (3, 21714), (Start: 8 @21579 has 1 MA's), (12, 21528), (Start: 22 @21480 has 1 MA's), (24, 21408), (26, 21384), (36, 21219),

Gene: Nicole72_53 Start: 39892, Stop: 40239, Start Num: 20 Candidate Starts for Nicole72_53: (10, 39826), (12, 39844), (Start: 20 @39892 has 1 MA's), (30, 40084), (34, 40153), (36, 40159),

Gene: Octobien14_72 Start: 45181, Stop: 45522, Start Num: 19 Candidate Starts for Octobien14_72: (Start: 19 @45181 has 1 MA's), (25, 45283), (28, 45337), (32, 45421),

Gene: Orcanus_29 Start: 21876, Stop: 21382, Start Num: 16 Candidate Starts for Orcanus_29: (5, 22002), (7, 21963), (Start: 16 @21876 has 9 MA's), (26, 21747), (28, 21702), (29, 21696), (33, 21591), (36, 21582), (41, 21435),

Gene: Pelletreau_31 Start: 21946, Stop: 21581, Start Num: 26 Candidate Starts for Pelletreau_31: (7, 22162), (Start: 16 @22075 has 9 MA's), (26, 21946), (28, 21901), (29, 21895), (33, 21790), (36, 21781), (41, 21634),

Gene: Rattail_30 Start: 20919, Stop: 20599, Start Num: 22 Candidate Starts for Rattail_30: (2, 21354), (4, 21204), (9, 21009), (17, 20952), (Start: 22 @20919 has 1 MA's), (26, 20823),

Gene: Ruchi_29 Start: 22284, Stop: 21793, Start Num: 16 Candidate Starts for Ruchi_29: (5, 22410), (Start: 16 @22284 has 9 MA's), (Start: 22 @22251 has 1 MA's), (24, 22179), (26, 22155), (28, 22110), (36, 21990),

Gene: TaylorSipht_29 Start: 21289, Stop: 20720, Start Num: 16 Candidate Starts for TaylorSipht_29: (7, 21373), (Start: 16 @21289 has 9 MA's), (Start: 22 @21256 has 1 MA's), (24, 21184), (26, 21160), (28, 21115), (38, 20941),

Gene: Toad24_30 Start: 22325, Stop: 21831, Start Num: 16 Candidate Starts for Toad24_30: (7, 22412), (Start: 16 @22325 has 9 MA's), (26, 22196), (28, 22151), (29, 22145), (33, 22040), (36, 22031), (41, 21884),

Gene: Vulpecula_29 Start: 21960, Stop: 21436, Start Num: 16

Candidate Starts for Vulpecula_29: (Start: 16 @21960 has 9 MA's), (Start: 22 @21927 has 1 MA's), (24, 21855), (26, 21831), (28, 21786), (36, 21666),

Gene: Weirdo19_91 Start: 53190, Stop: 53612, Start Num: 11 Candidate Starts for Weirdo19_91: (11, 53190), (23, 53316), (31, 53445), (36, 53508), (37, 53550), (40, 53604),

Gene: Westrich_31 Start: 21873, Stop: 21508, Start Num: 26 Candidate Starts for Westrich_31: (5, 22128), (7, 22089), (Start: 16 @22002 has 9 MA's), (26, 21873), (28, 21828), (29, 21822), (33, 21717), (36, 21708), (41, 21561),