

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 158090 Report

This analysis was run 04/13/24 on database version 558.

Pham number 158090 has 29 members, 5 are drafts.

Phages represented in each track:

- Track 1 : Brynnie 54
- Track 2: Basilisk\_55, Chickaboom\_60, Vulpecula\_54, Ruchi\_54
- Track 3 : Galaxy\_54
- Track 4 : Eesa 55
- Track 5 : Orcanus 56
- Track 6 : Abidatro\_57
- Track 7 : Jamun 54
- Track 8 : TaylorSipht\_57
- Track 9 : Kepler\_58, Amelia\_56, Cote\_59, Coral\_56, Polka\_56,

HannahPhantana 64, Lunar 58

- Track 10 : Melons 58, Daob 58
- Track 11 : LittleTokyo 55
- Track 12 : Kuleana\_58
- Track 13: PhluffyCoco\_57, Juno112\_57, KHumphrey\_56
- Track 14 : Andrew 59
- Track 15 : Leona 56
- Track 16 : RedFox\_57
- Track 17: Renna12 57

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

The start number called the most often in the published annotations is 7, it was called in 9 of the 24 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

• Amelia\_56, Coral\_56, Cote\_59, Daob\_58, HannahPhantana\_64, Kepler\_58, Kuleana\_58, Lunar\_58, Melons\_58, Polka\_56,

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

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

• Abidatro\_57, Andrew\_59, Basilisk\_55, Brynnie\_54, Chickaboom\_60, Eesa\_55, Galaxy\_54, Jamun\_54, Juno112\_57, KHumphrey\_56, Leona\_56, LittleTokyo\_55,

Orcanus\_56, PhluffyCoco\_57, RedFox\_57, Renna12\_57, Ruchi\_54, TaylorSipht\_57, Vulpecula\_54,

## **Summary by start number:**

### Start 6:

- Found in 1 of 29 ( 3.4% ) of genes in pham
- Manual Annotations of this start: 1 of 24
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Brynnie\_54 (AS1),

#### Start 7:

- Found in 10 of 29 (34.5%) of genes in pham
- Manual Annotation's of this start: 9 of 24
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Amelia\_56 (AS2), Coral\_56 (AS2), Cote\_59 (AS2), Daob\_58 (AS2), HannahPhantana\_64 (AS2), Kepler\_58 (AS2), Kuleana\_58 (AS2), Lunar\_58 (AS2), Melons\_58 (AS2), Polka\_56 (AS2),

#### Start 8

- Found in 8 of 29 (27.6%) of genes in pham
- Manual Annotations of this start: 6 of 24
- Called 87.5% of time when present
- Phage (with cluster) where this start called: Abidatro\_57 (AS1), Basilisk\_55 (AS1), Chickaboom\_60 (AS1), Galaxy\_54 (AS1), Jamun\_54 (AS1), Ruchi\_54 (AS1), Vulpecula\_54 (AS1),

#### Start 9:

- Found in 1 of 29 ( 3.4% ) of genes in pham
- Manual Annotations of this start: 1 of 24
- Called 100.0% of time when present
- Phage (with cluster) where this start called: TaylorSipht 57 (AS1),

### Start 11:

- Found in 2 of 29 (6.9%) of genes in pham
- Manual Annotations of this start: 2 of 24
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Eesa 55 (AS1), Orcanus 56 (AS1),

#### Start 12:

- Found in 1 of 29 ( 3.4% ) of genes in pham
- Manual Annotations of this start: 1 of 24
- Called 100.0% of time when present
- Phage (with cluster) where this start called: LittleTokyo\_55 (AS2),

#### Start 14:

- Found in 6 of 29 (20.7%) of genes in pham
- Manual Annotations of this start: 3 of 24
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Andrew\_59 (AS3), Juno112\_57 (AS3), KHumphrey\_56 (AS3), Leona\_56 (AS3), PhluffyCoco\_57 (AS3), RedFox\_57 (AS3),

#### Start 16:

- Found in 6 of 29 (20.7%) of genes in pham
- Manual Annotations of this start: 1 of 24
- Called 16.7% of time when present
- Phage (with cluster) where this start called: Renna12\_57 (AS3),

### **Summary by clusters:**

There are 3 clusters represented in this pham: AS3, AS2, AS1,

Info for manual annotations of cluster AS1:

- •Start number 6 was manually annotated 1 time for cluster AS1.
- •Start number 8 was manually annotated 6 times for cluster AS1.
- •Start number 9 was manually annotated 1 time for cluster AS1.
- •Start number 11 was manually annotated 2 times for cluster AS1.

Info for manual annotations of cluster AS2:

- •Start number 7 was manually annotated 9 times for cluster AS2.
- •Start number 12 was manually annotated 1 time for cluster AS2.

Info for manual annotations of cluster AS3:

- •Start number 14 was manually annotated 3 times for cluster AS3.
- •Start number 16 was manually annotated 1 time for cluster AS3.

#### Gene Information:

Gene: Abidatro\_57 Start: 35985, Stop: 36374, Start Num: 8

Candidate Starts for Abidatro\_57:

(Start: 8 @ 35985 has 6 MA's), (17, 36087), (20, 36120), (21, 36123), (24, 36192),

Gene: Amelia 56 Start: 33981, Stop: 34379, Start Num: 7

Candidate Starts for Amelia 56:

(Start: 7 @ 33981 has 9 MA's), (19, 34113), (20, 34125),

Gene: Andrew\_59 Start: 35202, Stop: 35561, Start Num: 14

Candidate Starts for Andrew\_59:

(Start: 14 @35202 has 3 MA's), (17, 35274), (19, 35295), (23, 35373), (27, 35469),

Gene: Basilisk 55 Start: 35212, Stop: 35601, Start Num: 8

Candidate Starts for Basilisk 55:

(1, 35035), (3, 35152), (Start: 8 @ 35212 has 6 MA's), (17, 35314), (22, 35380), (24, 35419),

Gene: Brynnie\_54 Start: 35104, Stop: 35496, Start Num: 6

Candidate Starts for Brynnie\_54:

(3, 35053), (Start: 6 @35104 has 1 MA's), (Start: 8 @35113 has 6 MA's), (17, 35209), (22, 35275), (24, 35314),

Gene: Chickaboom 60 Start: 35548, Stop: 35937, Start Num: 8

Candidate Starts for Chickaboom 60:

(1, 35371), (3, 35488), (Start: 8 @ 35548 has 6 MA's), (17, 35650), (22, 35716), (24, 35755),

Gene: Coral\_56 Start: 33886, Stop: 34284, Start Num: 7

Candidate Starts for Coral 56:

(Start: 7 @ 33886 has 9 MA's), (19, 34018), (20, 34030),

Gene: Cote\_59 Start: 34319, Stop: 34717, Start Num: 7

Candidate Starts for Cote\_59:

(Start: 7 @34319 has 9 MA's), (19, 34451), (20, 34463),

Gene: Daob 58 Start: 34330, Stop: 34728, Start Num: 7

Candidate Starts for Daob\_58:

(Start: 7 @ 34330 has 9 MA's), (19, 34462), (20, 34474), (28, 34693),

Gene: Eesa 55 Start: 36339, Stop: 36716, Start Num: 11

Candidate Starts for Eesa\_55:

(4, 36270), (5, 36300), (Start: 11 @36339 has 2 MA's), (19, 36450), (20, 36462),

Gene: Galaxy\_54 Start: 34402, Stop: 34791, Start Num: 8

Candidate Starts for Galaxy 54:

(Start: 8 @ 34402 has 6 MA's), (20, 34537), (21, 34540), (24, 34609),

Gene: HannahPhantana\_64 Start: 33976, Stop: 34374, Start Num: 7

Candidate Starts for HannahPhantana 64:

(Start: 7 @ 33976 has 9 MA's), (19, 34108), (20, 34120),

Gene: Jamun\_54 Start: 35634, Stop: 36023, Start Num: 8

Candidate Starts for Jamun\_54:

(Start: 8 @ 35634 has 6 MA's), (17, 35736), (24, 35841), (25, 35844),

Gene: Juno112 57 Start: 34906, Stop: 35265, Start Num: 14

Candidate Starts for Juno112\_57:

(Start: 14 @ 34906 has 3 MA's), (Start: 16 @ 34942 has 1 MA's), (23, 35077), (27, 35173),

Gene: KHumphrey\_56 Start: 34794, Stop: 35153, Start Num: 14

Candidate Starts for KHumphrey\_56:

(Start: 14 @34794 has 3 MA's), (Start: 16 @34830 has 1 MA's), (23, 34965), (27, 35061),

Gene: Kepler\_58 Start: 34097, Stop: 34495, Start Num: 7

Candidate Starts for Kepler\_58:

(Start: 7 @ 34097 has 9 MA's), (19, 34229), (20, 34241),

Gene: Kuleana\_58 Start: 34415, Stop: 34810, Start Num: 7

Candidate Starts for Kuleana 58:

(Start: 7 @34415 has 9 MA's), (15, 34487), (18, 34541), (19, 34544), (20, 34556), (22, 34589), (28, 34775),

Gene: Leona\_56 Start: 34989, Stop: 35348, Start Num: 14

Candidate Starts for Leona\_56:

(Start: 14 @34989 has 3 MA's), (Start: 16 @35025 has 1 MA's), (19, 35082), (23, 35160), (27, 35256), (29, 35316),

Gene: LittleTokyo 55 Start: 33618, Stop: 33974, Start Num: 12

Candidate Starts for LittleTokyo\_55:

(Start: 12 @33618 has 1 MA's), (22, 33753), (24, 33792), (26, 33816),

Gene: Lunar\_58 Start: 34009, Stop: 34407, Start Num: 7

Candidate Starts for Lunar\_58:

(Start: 7 @ 34009 has 9 MA's), (19, 34141), (20, 34153),

Gene: Melons\_58 Start: 33823, Stop: 34221, Start Num: 7

Candidate Starts for Melons 58:

(Start: 7 @ 33823 has 9 MA's), (19, 33955), (20, 33967), (28, 34186),

Gene: Orcanus\_56 Start: 36030, Stop: 36407, Start Num: 11

Candidate Starts for Orcanus\_56:

(10, 36024), (Start: 11 @ 36030 has 2 MA's), (19, 36141), (20, 36153), (26, 36249),

Gene: PhluffyCoco\_57 Start: 35005, Stop: 35364, Start Num: 14

Candidate Starts for PhluffyCoco\_57:

(Start: 14 @ 35005 has 3 MA's), (Start: 16 @ 35041 has 1 MA's), (23, 35176), (27, 35272),

Gene: Polka 56 Start: 33831, Stop: 34229, Start Num: 7

Candidate Starts for Polka\_56:

(Start: 7 @ 33831 has 9 MA's), (19, 33963), (20, 33975),

Gene: RedFox\_57 Start: 35003, Stop: 35362, Start Num: 14

Candidate Starts for RedFox 57:

(Start: 14 @35003 has 3 MA's), (Start: 16 @35039 has 1 MA's), (19, 35096), (23, 35174), (27, 35270),

Gene: Renna12\_57 Start: 35155, Stop: 35478, Start Num: 16

Candidate Starts for Renna12\_57:

(Start: 16 @35155 has 1 MA's), (21, 35227), (23, 35290), (27, 35386),

Gene: Ruchi\_54 Start: 35134, Stop: 35523, Start Num: 8

Candidate Starts for Ruchi\_54:

(1, 34957), (3, 35074), (Start: 8 @35134 has 6 MA's), (17, 35236), (22, 35302), (24, 35341),

Gene: TaylorSipht\_57 Start: 35813, Stop: 36202, Start Num: 9

Candidate Starts for TaylorSipht 57:

(2, 35663), (Start: 9 @35813 has 1 MA's), (13, 35852), (17, 35915), (19, 35936), (24, 36020), (25, 36023),

Gene: Vulpecula\_54 Start: 34794, Stop: 35183, Start Num: 8

Candidate Starts for Vulpecula\_54:

(1, 34617), (3, 34734), (Start: 8 @ 34794 has 6 MA's), (17, 34896), (22, 34962), (24, 35001),