



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 156587 Report

This analysis was run 04/12/24 on database version 558.

Pham number 156587 has 28 members, 5 are drafts.

Phages represented in each track:

- Track 1 : Vulpecula\_49, Brynnie\_49
- Track 2 : Basilisk\_50, Ruchi\_49
- Track 3 : Orcanus\_51
- Track 4 : Eesa\_50
- Track 5 : Jamun\_49
- Track 6 : Galaxy\_49
- Track 7 : Abidatro\_52
- Track 8 : TaylorSipht\_51
- Track 9 : Chickaboom\_55
- Track 10 : Kepler\_53, Amelia\_52, Cote\_54, Polka\_52, Lunar\_53, HannahPhantana\_60
- Track 11 : Kuleana\_53
- Track 12 : Coral\_52
- Track 13 : Melons\_53, Daob\_54
- Track 14 : PhluffyCoco\_53
- Track 15 : Juno112\_53, KHumphrey\_52, RedFox\_53
- Track 16 : Andrew\_54, Leona\_52
- Track 17 : Renna12\_52

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

The start number called the most often in the published annotations is 10, it was called in 19 of the 23 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Abidatro\_52, Amelia\_52, Basilisk\_50, Brynnie\_49, Chickaboom\_55, Coral\_52, Cote\_54, Daob\_54, Eesa\_50, Galaxy\_49, HannahPhantana\_60, Jamun\_49, Kepler\_53, Kuleana\_53, Lunar\_53, Melons\_53, Orcanus\_51, Polka\_52, Ruchi\_49, TaylorSipht\_51, Vulpecula\_49,

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:

- Andrew\_54, Juno112\_53, KHumphrey\_52, Leona\_52, PhluffyCoco\_53, RedFox\_53, Renna12\_52,

### Summary by start number:

#### Start 8:

- Found in 7 of 28 ( 25.0% ) of genes in pham
- Manual Annotations of this start: 4 of 23
- Called 85.7% of time when present
- Phage (with cluster) where this start called: Andrew\_54 (AS3), Juno112\_53 (AS3), KHumphrey\_52 (AS3), Leona\_52 (AS3), RedFox\_53 (AS3), Renna12\_52 (AS3),

#### Start 10:

- Found in 21 of 28 ( 75.0% ) of genes in pham
- Manual Annotations of this start: 19 of 23
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Abidatro\_52 (AS1), Amelia\_52 (AS2), Basilisk\_50 (AS1), Brynnie\_49 (AS1), Chickaboom\_55 (AS1), Coral\_52 (AS2), Cote\_54 (AS2), Daob\_54 (AS2), Eesa\_50 (AS1), Galaxy\_49 (AS1), HannahPhantana\_60 (AS2), Jamun\_49 (AS1), Kepler\_53 (AS2), Kuleana\_53 (AS2), Lunar\_53 (AS2), Melons\_53 (AS2), Orcanus\_51 (AS1), Polka\_52 (AS2), Ruchi\_49 (AS1), TaylorSipht\_51 (AS1), Vulpecula\_49 (AS1),

#### Start 12:

- Found in 8 of 28 ( 28.6% ) of genes in pham
- No Manual Annotations of this start.
- Called 12.5% of time when present
- Phage (with cluster) where this start called: PhluffyCoco\_53 (AS3),

### Summary by clusters:

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

Info for manual annotations of cluster AS1:

- Start number 10 was manually annotated 10 times for cluster AS1.

Info for manual annotations of cluster AS2:

- Start number 10 was manually annotated 9 times for cluster AS2.

Info for manual annotations of cluster AS3:

- Start number 8 was manually annotated 4 times for cluster AS3.

### Gene Information:

Gene: Abidatro\_52 Start: 33557, Stop: 33799, Start Num: 10

Candidate Starts for Abidatro\_52:

(Start: 10 @33557 has 19 MA's), (11, 33596), (14, 33605), (15, 33620), (17, 33629),

Gene: Amelia\_52 Start: 32428, Stop: 32658, Start Num: 10

Candidate Starts for Amelia\_52:

(3, 32263), (7, 32338), (Start: 10 @32428 has 19 MA's), (13, 32461), (17, 32485), (22, 32506), (25, 32551), (26, 32560), (29, 32578), (33, 32614),

Gene: Andrew\_54 Start: 32798, Stop: 33043, Start Num: 8

Candidate Starts for Andrew\_54:

(Start: 8 @32798 has 4 MA's), (9, 32807), (12, 32843), (13, 32846), (15, 32864), (27, 32957), (31, 32978),

Gene: Basilisk\_50 Start: 32777, Stop: 33019, Start Num: 10

Candidate Starts for Basilisk\_50:

(Start: 10 @32777 has 19 MA's), (11, 32816), (14, 32825), (15, 32840), (17, 32849), (27, 32930),

Gene: Brynnie\_49 Start: 32634, Stop: 32876, Start Num: 10

Candidate Starts for Brynnie\_49:

(Start: 10 @32634 has 19 MA's), (11, 32673), (14, 32682), (15, 32697), (16, 32703), (17, 32706), (27, 32787),

Gene: Chickaboom\_55 Start: 33089, Stop: 33352, Start Num: 10

Candidate Starts for Chickaboom\_55:

(2, 32888), (4, 32942), (5, 32957), (Start: 10 @33089 has 19 MA's), (11, 33128), (14, 33137), (15, 33152), (16, 33158), (18, 33173), (19, 33179), (20, 33182), (27, 33263),

Gene: Coral\_52 Start: 32296, Stop: 32523, Start Num: 10

Candidate Starts for Coral\_52:

(3, 32131), (7, 32206), (Start: 10 @32296 has 19 MA's), (13, 32326), (17, 32350), (22, 32371), (26, 32425), (29, 32443), (33, 32479),

Gene: Cote\_54 Start: 32769, Stop: 32996, Start Num: 10

Candidate Starts for Cote\_54:

(3, 32604), (7, 32679), (Start: 10 @32769 has 19 MA's), (13, 32799), (17, 32823), (22, 32844), (25, 32889), (26, 32898), (29, 32916), (33, 32952),

Gene: Daob\_54 Start: 32780, Stop: 33007, Start Num: 10

Candidate Starts for Daob\_54:

(3, 32615), (7, 32690), (Start: 10 @32780 has 19 MA's), (13, 32810), (17, 32834), (22, 32855), (25, 32900), (29, 32927), (33, 32963),

Gene: Eesa\_50 Start: 34151, Stop: 34402, Start Num: 10

Candidate Starts for Eesa\_50:

(Start: 10 @34151 has 19 MA's), (11, 34190), (15, 34214), (17, 34223), (24, 34259), (27, 34304),

Gene: Galaxy\_49 Start: 31972, Stop: 32214, Start Num: 10

Candidate Starts for Galaxy\_49:

(Start: 10 @31972 has 19 MA's), (11, 32011), (14, 32020), (15, 32035), (17, 32044), (28, 32128),

Gene: HannahPhantana\_60 Start: 32423, Stop: 32653, Start Num: 10

Candidate Starts for HannahPhantana\_60:

(3, 32258), (7, 32333), (Start: 10 @32423 has 19 MA's), (13, 32456), (17, 32480), (22, 32501), (25, 32546), (26, 32555), (29, 32573), (33, 32609),

Gene: Jamun\_49 Start: 33216, Stop: 33458, Start Num: 10

Candidate Starts for Jamun\_49:

(4, 33069), (5, 33084), (Start: 10 @33216 has 19 MA's), (11, 33255), (14, 33264), (17, 33288), (27, 33369),

Gene: Juno112\_53 Start: 32905, Stop: 33150, Start Num: 8

Candidate Starts for Juno112\_53:

(Start: 8 @32905 has 4 MA's), (9, 32914), (12, 32950), (13, 32953), (15, 32971), (16, 32977), (27, 33064), (31, 33085),

Gene: KHumphrey\_52 Start: 32793, Stop: 33038, Start Num: 8

Candidate Starts for KHumphrey\_52:

(Start: 8 @32793 has 4 MA's), (9, 32802), (12, 32838), (13, 32841), (15, 32859), (16, 32865), (27, 32952), (31, 32973),

Gene: Kepler\_53 Start: 32544, Stop: 32774, Start Num: 10

Candidate Starts for Kepler\_53:

(3, 32379), (7, 32454), (Start: 10 @32544 has 19 MA's), (13, 32577), (17, 32601), (22, 32622), (25, 32667), (26, 32676), (29, 32694), (33, 32730),

Gene: Kuleana\_53 Start: 32118, Stop: 32369, Start Num: 10

Candidate Starts for Kuleana\_53:

(1, 31848), (6, 32004), (7, 32028), (Start: 10 @32118 has 19 MA's), (12, 32163), (13, 32166), (16, 32190), (21, 32196), (22, 32214), (23, 32217), (26, 32268), (27, 32280), (28, 32283), (29, 32286),

Gene: Leona\_52 Start: 32984, Stop: 33229, Start Num: 8

Candidate Starts for Leona\_52:

(Start: 8 @32984 has 4 MA's), (9, 32993), (12, 33029), (13, 33032), (15, 33050), (27, 33143), (31, 33164),

Gene: Lunar\_53 Start: 32459, Stop: 32686, Start Num: 10

Candidate Starts for Lunar\_53:

(3, 32294), (7, 32369), (Start: 10 @32459 has 19 MA's), (13, 32489), (17, 32513), (22, 32534), (25, 32579), (26, 32588), (29, 32606), (33, 32642),

Gene: Melons\_53 Start: 32273, Stop: 32500, Start Num: 10

Candidate Starts for Melons\_53:

(3, 32108), (7, 32183), (Start: 10 @32273 has 19 MA's), (13, 32303), (17, 32327), (22, 32348), (25, 32393), (29, 32420), (33, 32456),

Gene: Orcanus\_51 Start: 33804, Stop: 34046, Start Num: 10

Candidate Starts for Orcanus\_51:

(Start: 10 @33804 has 19 MA's), (11, 33843), (15, 33867), (17, 33876), (24, 33912),

Gene: PhluffyCoco\_53 Start: 33048, Stop: 33248, Start Num: 12

Candidate Starts for PhluffyCoco\_53:

(Start: 8 @33003 has 4 MA's), (9, 33012), (12, 33048), (13, 33051), (15, 33069), (16, 33075), (27, 33162), (30, 33177), (31, 33183),

Gene: Polka\_52 Start: 32277, Stop: 32507, Start Num: 10

Candidate Starts for Polka\_52:

(3, 32112), (7, 32187), (Start: 10 @32277 has 19 MA's), (13, 32310), (17, 32334), (22, 32355), (25, 32400), (26, 32409), (29, 32427), (33, 32463),

Gene: RedFox\_53 Start: 33002, Stop: 33247, Start Num: 8

Candidate Starts for RedFox\_53:

(Start: 8 @33002 has 4 MA's), (9, 33011), (12, 33047), (13, 33050), (15, 33068), (16, 33074), (27, 33161), (31, 33182),

Gene: Renna12\_52 Start: 32855, Stop: 33100, Start Num: 8

Candidate Starts for Renna12\_52:

(Start: 8 @32855 has 4 MA's), (9, 32864), (12, 32900), (13, 32903), (15, 32921), (16, 32927), (27, 33014), (29, 33020), (31, 33035),

Gene: Ruchi\_49 Start: 32699, Stop: 32941, Start Num: 10

Candidate Starts for Ruchi\_49:

(Start: 10 @32699 has 19 MA's), (11, 32738), (14, 32747), (15, 32762), (17, 32771), (27, 32852),

Gene: TaylorSipht\_51 Start: 33344, Stop: 33586, Start Num: 10

Candidate Starts for TaylorSipht\_51:

(Start: 10 @33344 has 19 MA's), (11, 33383), (15, 33407), (17, 33416), (32, 33536),

Gene: Vulpecula\_49 Start: 32359, Stop: 32601, Start Num: 10

Candidate Starts for Vulpecula\_49:

(Start: 10 @32359 has 19 MA's), (11, 32398), (14, 32407), (15, 32422), (16, 32428), (17, 32431), (27, 32512),