



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 148948 Report

This analysis was run 04/28/24 on database version 559.

Pham number 148948 has 37 members, 3 are drafts.

Phages represented in each track:

- Track 1 : EastWest\_1
- Track 2 : King2\_1, Franzy\_1, Jawnski\_1
- Track 3 : NathanVaag\_1, Piccoletto\_1
- Track 4 : Beans\_1
- Track 5 : Brent\_1
- Track 6 : Grekaycon\_1
- Track 7 : Pippa\_1
- Track 8 : BarretLemon\_1, Timinator\_1, LeeroyJ\_1
- Track 9 : StevieBAY\_1, GravityBall\_1
- Track 10 : Jordan\_1, Sonny\_1, Shade\_1, Zartrosa\_1
- Track 11 : Martha\_1, TaeYoung\_1, BossLady\_1
- Track 12 : Wyborn\_1, Sicarius2\_1
- Track 13 : JKerns\_1
- Track 14 : Abba\_1
- Track 15 : Klevey\_1, CalWood4100\_1, Prairie\_1, Lilmac1015\_1
- Track 16 : Altadena\_1
- Track 17 : Bolt007\_1
- Track 18 : Bumble\_1
- Track 19 : Hirko\_1
- Track 20 : Jinkies\_1
- Track 21 : Vibaki\_1
- Track 22 : pZL12\_68c

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

The start number called the most often in the published annotations is 9, it was called in 23 of the 34 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Abba\_1, Altadena\_1, BarretLemon\_1, Beans\_1, Bolt007\_1, Brent\_1, Bumble\_1, CalWood4100\_1, EastWest\_1, Franzy\_1, GravityBall\_1, Grekaycon\_1, Jawnski\_1, King2\_1, Klevey\_1, LeeroyJ\_1, Lilmac1015\_1, NathanVaag\_1, Piccoletto\_1, Pippa\_1, Prairie\_1, Sicarius2\_1, StevieBAY\_1, Timinator\_1, Wyborn\_1,

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

- BossLady\_1, JKerns\_1, Jordan\_1, Martha\_1, Shade\_1, Sonny\_1, TaeYoung\_1, Zartrosa\_1,

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

- Hirko\_1, Jinkies\_1, Vibaki\_1, pZL12\_68c,

### **Summary by start number:**

Start 5:

- Found in 1 of 37 ( 2.7% ) of genes in pham
- Manual Annotations of this start: 1 of 34
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Jinkies\_1 (FL),

Start 6:

- Found in 1 of 37 ( 2.7% ) of genes in pham
- Manual Annotations of this start: 1 of 34
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Vibaki\_1 (FL),

Start 7:

- Found in 10 of 37 ( 27.0% ) of genes in pham
- Manual Annotations of this start: 8 of 34
- Called 80.0% of time when present
- Phage (with cluster) where this start called: BossLady\_1 (AO2), JKerns\_1 (AO2), Jordan\_1 (AO2), Martha\_1 (AO2), Shade\_1 (AO2), Sonny\_1 (AO2), TaeYoung\_1 (AO2), Zartrosa\_1 (AO2),

Start 8:

- Found in 1 of 37 ( 2.7% ) of genes in pham
- Manual Annotations of this start: 1 of 34
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Hirko\_1 (FL),

Start 9:

- Found in 33 of 37 ( 89.2% ) of genes in pham
- Manual Annotations of this start: 23 of 34
- Called 75.8% of time when present
- Phage (with cluster) where this start called: Abba\_1 (AO3), Altadena\_1 (FH), BarretLemon\_1 (AO2), Beans\_1 (AO1), Bolt007\_1 (FH), Brent\_1 (AO1), Bumble\_1 (FH), CalWood4100\_1 (FH), EastWest\_1 (AO), Franzy\_1 (AO1), GravityBall\_1 (AO2), Grekaycon\_1 (AO2), Jawnski\_1 (AO1), King2\_1 (AO1), Klevey\_1 (FH), LeeroyJ\_1 (AO2), Lilmac1015\_1 (FH), NathanVaag\_1 (AO1), Piccoletto\_1 (AO1), Pippa\_1 (AO2), Prairie\_1 (FH), Sicarius2\_1 (AO2), StevieBAY\_1 (AO2), Timinator\_1 (AO2), Wyborn\_1 (AO2),

Start 10:

- Found in 1 of 37 ( 2.7% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: pZL12\_68c (singleton),

## Summary by clusters:

There are 7 clusters represented in this pham: singleton, AO, AO3, AO2, AO1, FH, FL,

Info for manual annotations of cluster AO:

- Start number 9 was manually annotated 1 time for cluster AO.

Info for manual annotations of cluster AO1:

- Start number 9 was manually annotated 7 times for cluster AO1.

Info for manual annotations of cluster AO2:

- Start number 7 was manually annotated 8 times for cluster AO2.
- Start number 9 was manually annotated 8 times for cluster AO2.

Info for manual annotations of cluster AO3:

- Start number 9 was manually annotated 1 time for cluster AO3.

Info for manual annotations of cluster FH:

- Start number 9 was manually annotated 6 times for cluster FH.

Info for manual annotations of cluster FL:

- Start number 5 was manually annotated 1 time for cluster FL.
- Start number 6 was manually annotated 1 time for cluster FL.
- Start number 8 was manually annotated 1 time for cluster FL.

## Gene Information:

Gene: Abba\_1 Start: 1, Stop: 459, Start Num: 9

Candidate Starts for Abba\_1:

(Start: 9 @1 has 23 MA's), (17, 79), (23, 172), (24, 184), (25, 205), (26, 214), (27, 223), (47, 418),

Gene: Altadena\_1 Start: 1, Stop: 438, Start Num: 9

Candidate Starts for Altadena\_1:

(Start: 9 @1 has 23 MA's), (15, 61), (23, 151), (29, 217), (38, 286), (39, 319), (45, 379), (47, 394), (49, 415),

Gene: BarretLemon\_1 Start: 21, Stop: 470, Start Num: 9

Candidate Starts for BarretLemon\_1:

(Start: 9 @21 has 23 MA's), (11, 33), (16, 93), (22, 177), (24, 204), (31, 282), (34, 297), (40, 366), (42, 390), (47, 432), (48, 447),

Gene: Beans\_1 Start: 25, Stop: 474, Start Num: 9

Candidate Starts for Beans\_1:

(Start: 9 @25 has 23 MA's), (16, 97), (17, 103), (31, 286), (34, 301), (40, 370), (42, 394), (47, 436), (48, 451),

Gene: Bolt007\_1 Start: 1, Stop: 438, Start Num: 9

Candidate Starts for Bolt007\_1:

(Start: 9 @1 has 23 MA's), (15, 61), (29, 217), (35, 274), (38, 286), (47, 394),

Gene: BossLady\_1 Start: 1, Stop: 480, Start Num: 7

Candidate Starts for BossLady\_1:

(Start: 7 @1 has 8 MA's), (Start: 9 @22 has 23 MA's), (11, 34), (16, 94), (34, 307), (42, 400), (43, 406), (47, 442), (48, 457),

Gene: Brent\_1 Start: 25, Stop: 474, Start Num: 9

Candidate Starts for Brent\_1:

(Start: 9 @25 has 23 MA's), (16, 97), (17, 103), (24, 208), (34, 301), (37, 328), (40, 370), (42, 394), (47, 436), (48, 451),

Gene: Bumble\_1 Start: 1, Stop: 438, Start Num: 9

Candidate Starts for Bumble\_1:

(Start: 9 @1 has 23 MA's), (14, 58), (15, 61), (29, 217), (38, 286), (47, 394), (49, 415),

Gene: CalWood4100\_1 Start: 1, Stop: 438, Start Num: 9

Candidate Starts for CalWood4100\_1:

(Start: 9 @1 has 23 MA's), (15, 61), (29, 217), (38, 286), (47, 394),

Gene: EastWest\_1 Start: 1, Stop: 447, Start Num: 9

Candidate Starts for EastWest\_1:

(Start: 9 @1 has 23 MA's), (11, 13), (12, 25), (31, 262), (42, 370), (47, 412), (48, 427),

Gene: Franzy\_1 Start: 25, Stop: 474, Start Num: 9

Candidate Starts for Franzy\_1:

(Start: 9 @25 has 23 MA's), (16, 97), (17, 103), (24, 208), (27, 247), (31, 286), (34, 301), (37, 328), (40, 370), (42, 394), (47, 436), (48, 451),

Gene: GravityBall\_1 Start: 21, Stop: 470, Start Num: 9

Candidate Starts for GravityBall\_1:

(Start: 9 @21 has 23 MA's), (11, 33), (16, 93), (22, 177), (31, 282), (34, 297), (40, 366), (42, 390), (47, 432), (48, 447),

Gene: Grekaycon\_1 Start: 22, Stop: 480, Start Num: 9

Candidate Starts for Grekaycon\_1:

(Start: 7 @1 has 8 MA's), (Start: 9 @22 has 23 MA's), (11, 34), (16, 94), (34, 307), (42, 400), (43, 406), (47, 442), (48, 457),

Gene: Hirko\_1 Start: 1, Stop: 468, Start Num: 8

Candidate Starts for Hirko\_1:

(Start: 8 @1 has 1 MA's), (18, 79), (21, 133), (25, 214), (28, 244), (29, 247), (38, 319), (42, 388), (47, 427), (48, 442),

Gene: JKerns\_1 Start: 1, Stop: 480, Start Num: 7

Candidate Starts for JKerns\_1:

(Start: 7 @1 has 8 MA's), (Start: 9 @22 has 23 MA's), (11, 34), (16, 94), (31, 292), (32, 295), (34, 307), (42, 400), (43, 406), (47, 442), (48, 457),

Gene: Jawnski\_1 Start: 25, Stop: 474, Start Num: 9

Candidate Starts for Jawnski\_1:

(Start: 9 @25 has 23 MA's), (16, 97), (17, 103), (24, 208), (27, 247), (31, 286), (34, 301), (37, 328), (40, 370), (42, 394), (47, 436), (48, 451),

Gene: Jinkies\_1 Start: 1, Stop: 510, Start Num: 5

Candidate Starts for Jinkies\_1:

(Start: 5 @1 has 1 MA's), (13, 67), (28, 283), (34, 328), (36, 349), (38, 358), (41, 424), (44, 433), (47, 469),

Gene: Jordan\_1 Start: 1, Stop: 480, Start Num: 7

Candidate Starts for Jordan\_1:

(Start: 7 @1 has 8 MA's), (Start: 9 @22 has 23 MA's), (11, 34), (16, 94), (31, 292), (34, 307), (42, 400), (43, 406), (47, 442), (48, 457),

Gene: King2\_1 Start: 25, Stop: 474, Start Num: 9

Candidate Starts for King2\_1:

(Start: 9 @25 has 23 MA's), (16, 97), (17, 103), (24, 208), (27, 247), (31, 286), (34, 301), (37, 328), (40, 370), (42, 394), (47, 436), (48, 451),

Gene: Klevey\_1 Start: 1, Stop: 438, Start Num: 9

Candidate Starts for Klevey\_1:

(Start: 9 @1 has 23 MA's), (15, 61), (29, 217), (38, 286), (47, 394),

Gene: LeeroyJ\_1 Start: 21, Stop: 470, Start Num: 9

Candidate Starts for LeeroyJ\_1:

(Start: 9 @21 has 23 MA's), (11, 33), (16, 93), (22, 177), (24, 204), (31, 282), (34, 297), (40, 366), (42, 390), (47, 432), (48, 447),

Gene: Lilmac1015\_1 Start: 1, Stop: 438, Start Num: 9

Candidate Starts for Lilmac1015\_1:

(Start: 9 @1 has 23 MA's), (15, 61), (29, 217), (38, 286), (47, 394),

Gene: Martha\_1 Start: 1, Stop: 480, Start Num: 7

Candidate Starts for Martha\_1:

(Start: 7 @1 has 8 MA's), (Start: 9 @22 has 23 MA's), (11, 34), (16, 94), (34, 307), (42, 400), (43, 406), (47, 442), (48, 457),

Gene: NathanVaag\_1 Start: 25, Stop: 474, Start Num: 9

Candidate Starts for NathanVaag\_1:

(Start: 9 @25 has 23 MA's), (16, 97), (17, 103), (31, 286), (34, 301), (37, 328), (40, 370), (42, 394), (47, 436), (48, 451),

Gene: Piccoletto\_1 Start: 25, Stop: 474, Start Num: 9

Candidate Starts for Piccoletto\_1:

(Start: 9 @25 has 23 MA's), (16, 97), (17, 103), (31, 286), (34, 301), (37, 328), (40, 370), (42, 394), (47, 436), (48, 451),

Gene: Pippa\_1 Start: 22, Stop: 480, Start Num: 9

Candidate Starts for Pippa\_1:

(Start: 7 @1 has 8 MA's), (Start: 9 @22 has 23 MA's), (11, 34), (16, 94), (31, 292), (34, 307), (42, 400), (47, 442), (48, 457),

Gene: Prairie\_1 Start: 1, Stop: 438, Start Num: 9

Candidate Starts for Prairie\_1:

(Start: 9 @1 has 23 MA's), (15, 61), (29, 217), (38, 286), (47, 394),

Gene: Shade\_1 Start: 1, Stop: 480, Start Num: 7

Candidate Starts for Shade\_1:

(Start: 7 @1 has 8 MA's), (Start: 9 @22 has 23 MA's), (11, 34), (16, 94), (31, 292), (34, 307), (42, 400), (43, 406), (47, 442), (48, 457),

Gene: Sicarius2\_1 Start: 1, Stop: 462, Start Num: 9

Candidate Starts for Sicarius2\_1:

(Start: 9 @1 has 23 MA's), (28, 244), (31, 271), (34, 286), (47, 424),

Gene: Sonny\_1 Start: 1, Stop: 480, Start Num: 7

Candidate Starts for Sonny\_1:

(Start: 7 @1 has 8 MA's), (Start: 9 @22 has 23 MA's), (11, 34), (16, 94), (31, 292), (34, 307), (42, 400), (43, 406), (47, 442), (48, 457),

Gene: StevieBAY\_1 Start: 21, Stop: 470, Start Num: 9

Candidate Starts for StevieBAY\_1:

(Start: 9 @21 has 23 MA's), (11, 33), (16, 93), (22, 177), (31, 282), (34, 297), (40, 366), (42, 390), (47, 432), (48, 447),

Gene: TaeYoung\_1 Start: 1, Stop: 480, Start Num: 7

Candidate Starts for TaeYoung\_1:

(Start: 7 @1 has 8 MA's), (Start: 9 @22 has 23 MA's), (11, 34), (16, 94), (34, 307), (42, 400), (43, 406), (47, 442), (48, 457),

Gene: Timinator\_1 Start: 21, Stop: 470, Start Num: 9

Candidate Starts for Timinator\_1:

(Start: 9 @21 has 23 MA's), (11, 33), (16, 93), (22, 177), (24, 204), (31, 282), (34, 297), (40, 366), (42, 390), (47, 432), (48, 447),

Gene: Vibaki\_1 Start: 1, Stop: 498, Start Num: 6

Candidate Starts for Vibaki\_1:

(Start: 6 @1 has 1 MA's), (13, 58), (15, 94), (20, 160), (28, 274), (30, 283), (33, 316), (42, 418), (46, 445), (47, 457), (48, 472),

Gene: Wyborn\_1 Start: 1, Stop: 462, Start Num: 9

Candidate Starts for Wyborn\_1:

(Start: 9 @1 has 23 MA's), (28, 244), (31, 271), (34, 286), (47, 424),

Gene: Zartrosa\_1 Start: 1, Stop: 480, Start Num: 7

Candidate Starts for Zartrosa\_1:

(Start: 7 @1 has 8 MA's), (Start: 9 @22 has 23 MA's), (11, 34), (16, 94), (31, 292), (34, 307), (42, 400), (43, 406), (47, 442), (48, 457),

Gene: pZL12\_68c Start: 56713, Stop: 56180, Start Num: 10

Candidate Starts for pZL12\_68c:

(1, 57679), (2, 57661), (3, 57658), (4, 57571), (10, 56713), (19, 56614), (38, 56371), (39, 56338),