

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 220169 Report

This analysis was run 03/28/25 on database version 593.

Pham number 220169 has 18 members, 3 are drafts.

Phages represented in each track:

Track 1 : Bunnybear_12

• Track 2 : WelcomeAyanna_12, ThankyouJordi_12

Track 3: TuertoX_12, Ebert_12, Sproutie_12, Savage_12, Mocha12_12

• Track 4 : Sahara 12

• Track 5 : Clap_12, Whiteclaw_12, Gizermo_12, Haley23_12, GemG_12, Cynthia_12

Track 6 : JCole_12Track 7 : REQ3_46Track 8 : Mbo4_12

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 15 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

• Clap_12, Cynthia_12, GemG_12, Gizermo_12, Haley23_12, JCole_12, Whiteclaw 12,

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

Ebert_12, Mocha12_12, Sahara_12, Savage_12, Sproutie_12, TuertoX_12,

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

Bunnybear_12, Mbo4_12, REQ3_46, ThankyouJordi_12, WelcomeAyanna_12,

Summary by start number:

Start 1:

- Found in 3 of 18 (16.7%) of genes in pham
- Manual Annotations of this start: 3 of 15
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Bunnybear_12 (CZ), ThankyouJordi_12 (CZ1), WelcomeAyanna_12 (CZ1),

Start 2:

- Found in 14 of 18 (77.8%) of genes in pham
- Manual Annotation's of this start: 6 of 15
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Ebert_12 (CZ2), Mbo4_12 (singleton), Mocha12_12 (CZ2), Sahara_12 (CZ2), Savage_12 (CZ2), Sproutie_12 (CZ2), TuertoX_12 (CZ2),

Start 3:

- Found in 13 of 18 (72.2%) of genes in pham
- Manual Annotations of this start: 6 of 15
- Called 53.8% of time when present
- Phage (with cluster) where this start called: Clap_12 (CZ2), Cynthia_12 (CZ2), GemG_12 (CZ2), Gizermo_12 (CZ2), Haley23_12 (CZ2), JCole_12 (CZ2), Whiteclaw 12 (CZ2),

Start 5:

- Found in 1 of 18 (5.6%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: REQ3_46 (singleton),

Summary by clusters:

There are 4 clusters represented in this pham: CZ2, CZ, singleton, CZ1,

Info for manual annotations of cluster CZ:

•Start number 1 was manually annotated 1 time for cluster CZ.

Info for manual annotations of cluster CZ1:

•Start number 1 was manually annotated 2 times for cluster CZ1.

Info for manual annotations of cluster CZ2:

- •Start number 2 was manually annotated 6 times for cluster CZ2.
- •Start number 3 was manually annotated 6 times for cluster CZ2.

Gene Information:

Gene: Bunnybear_12 Start: 8469, Stop: 9230, Start Num: 1

Candidate Starts for Bunnybear_12:

(Start: 1 @8469 has 3 MA's), (6, 8517), (10, 8652), (11, 8703), (22, 8985), (24, 9021), (26, 9111), (30, 9168),

Gene: Clap_12 Start: 7619, Stop: 8428, Start Num: 3

Candidate Starts for Clap_12:

 $(Start: 2 @7616 \ has 6 \ MA's), \ (Start: 3 @7619 \ has 6 \ MA's), \ (8, 7751), \ (9, 7784), \ (16, 7937), \ (17, 7943), \ (20, 8099), \ (27, 8276), \ (29, 8315), \ (37, 8387),$

Gene: Cynthia 12 Start: 7619, Stop: 8428, Start Num: 3

Candidate Starts for Cynthia 12:

(Start: 2 @7616 has 6 MA's), (Start: 3 @7619 has 6 MA's), (8, 7751), (9, 7784), (16, 7937), (17, 7943), (20, 8099), (27, 8276), (29, 8315), (37, 8387),

Gene: Ebert_12 Start: 7616, Stop: 8428, Start Num: 2

Candidate Starts for Ebert_12:

(Start: 2 @7616 has 6 MA's), (Start: 3 @7619 has 6 MA's), (8, 7751), (9, 7784), (16, 7937), (17, 7943), (20, 8099), (27, 8276), (29, 8315), (37, 8387),

Gene: GemG_12 Start: 7619, Stop: 8428, Start Num: 3

Candidate Starts for GemG 12:

(Start: 2 @7616 has 6 MA's), (Start: 3 @7619 has 6 MA's), (8, 7751), (9, 7784), (16, 7937), (17, 7943), (20, 8099), (27, 8276), (29, 8315), (37, 8387),

Gene: Gizermo 12 Start: 7619, Stop: 8428, Start Num: 3

Candidate Starts for Gizermo 12:

(Start: 2 @7616 has 6 MA's), (Start: 3 @7619 has 6 MA's), (8, 7751), (9, 7784), (16, 7937), (17, 7943), (20, 8099), (27, 8276), (29, 8315), (37, 8387),

Gene: Haley23_12 Start: 7619, Stop: 8428, Start Num: 3

Candidate Starts for Haley23 12:

(Start: 2 @7616 has 6 MA's), (Start: 3 @7619 has 6 MA's), (8, 7751), (9, 7784), (16, 7937), (17, 7943), (20, 8099), (27, 8276), (29, 8315), (37, 8387),

Gene: JCole_12 Start: 7619, Stop: 8428, Start Num: 3

Candidate Starts for JCole 12:

(Start: 2 @7616 has 6 MA's), (Start: 3 @7619 has 6 MA's), (8, 7751), (9, 7784), (16, 7937), (17, 7943), (20, 8099), (27, 8276), (29, 8315), (34, 8345), (37, 8387),

Gene: Mbo4_12 Start: 8308, Stop: 9102, Start Num: 2

Candidate Starts for Mbo4 12:

(Start: 2 @8308 has 6 MA's), (4, 8323), (13, 8572), (15, 8617), (21, 8788), (25, 8875), (27, 8950), (28, 8953), (32, 9007), (33, 9013), (38, 9073),

Gene: Mocha12_12 Start: 7616, Stop: 8428, Start Num: 2

Candidate Starts for Mocha12 12:

(Start: 2 @7616 has 6 MA's), (Start: 3 @7619 has 6 MA's), (8, 7751), (9, 7784), (16, 7937), (17, 7943), (20, 8099), (27, 8276), (29, 8315), (37, 8387),

Gene: REQ3_46 Start: 25028, Stop: 25765, Start Num: 5

Candidate Starts for REQ3_46:

(5, 25028), (18, 25382), (23, 25514),

Gene: Sahara_12 Start: 7633, Stop: 8445, Start Num: 2

Candidate Starts for Sahara_12:

(Start: 2 @7633 has 6 MA's), (Start: 3 @7636 has 6 MA's), (7, 7705), (8, 7768), (9, 7801), (14, 7912), (16, 7954), (17, 7960), (20, 8116), (24, 8182), (27, 8293), (29, 8332), (31, 8341), (35, 8365), (36, 8383), (37, 8404),

Gene: Savage_12 Start: 7616, Stop: 8428, Start Num: 2

Candidate Starts for Savage_12:

(Start: 2 @7616 has 6 MA's), (Start: 3 @7619 has 6 MA's), (8, 7751), (9, 7784), (16, 7937), (17, 7943), (20, 8099), (27, 8276), (29, 8315), (37, 8387),

Gene: Sproutie 12 Start: 7616, Stop: 8428, Start Num: 2

Candidate Starts for Sproutie_12:

(Start: 2 @7616 has 6 MA's), (Start: 3 @7619 has 6 MA's), (8, 7751), (9, 7784), (16, 7937), (17, 7943), (20, 8099), (27, 8276), (29, 8315), (37, 8387),

Gene: ThankyouJordi_12 Start: 8476, Stop: 9237, Start Num: 1

Candidate Starts for ThankyouJordi_12:

(Start: 1 @8476 has 3 MA's), (6, 8524), (10, 8659), (12, 8716), (13, 8770), (19, 8884), (22, 8992), (30, 9175),

Gene: TuertoX_12 Start: 7616, Stop: 8428, Start Num: 2

Candidate Starts for TuertoX_12:

(Start: 2 @7616 has 6 MA's), (Start: 3 @7619 has 6 MA's), (8, 7751), (9, 7784), (16, 7937), (17, 7943), (20, 8099), (27, 8276), (29, 8315), (37, 8387),

Gene: WelcomeAyanna_12 Start: 8476, Stop: 9237, Start Num: 1

Candidate Starts for WelcomeAyanna_12:

(Start: 1 @8476 has 3 MA's), (6, 8524), (10, 8659), (12, 8716), (13, 8770), (19, 8884), (22, 8992), (30, 9175),

Gene: Whiteclaw_12 Start: 7619, Stop: 8428, Start Num: 3

Candidate Starts for Whiteclaw_12:

(Start: 2 @7616 has 6 MA's), (Start: 3 @7619 has 6 MA's), (8, 7751), (9, 7784), (16, 7937), (17, 7943), (20, 8099), (27, 8276), (29, 8315), (37, 8387),