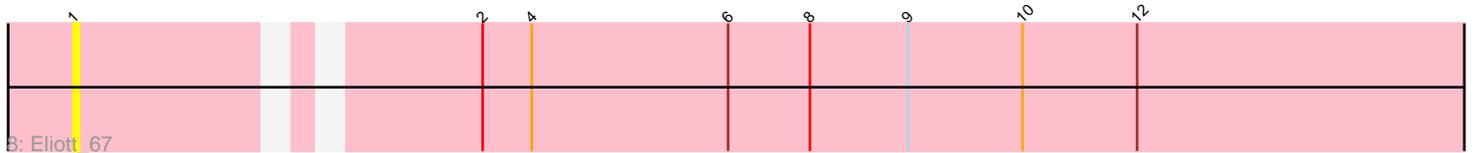
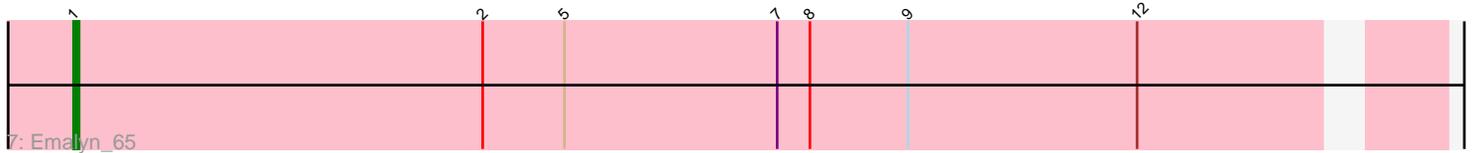
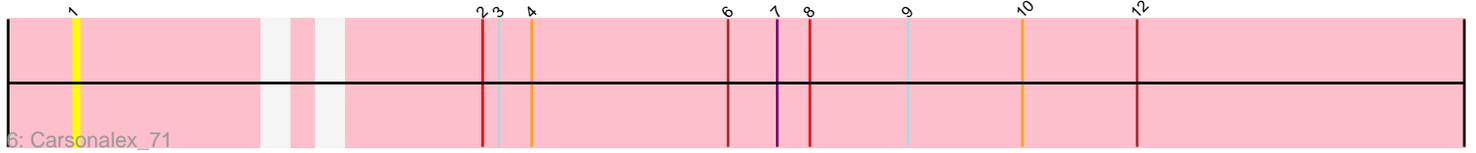
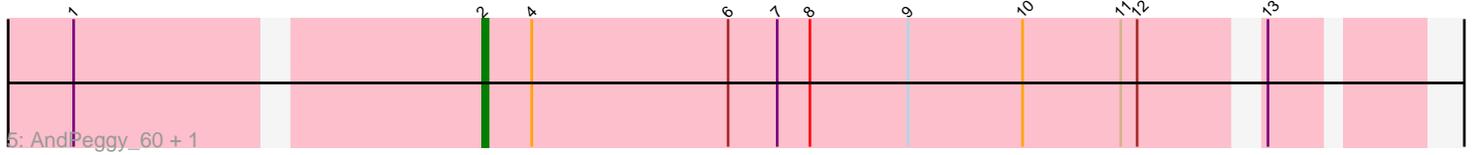
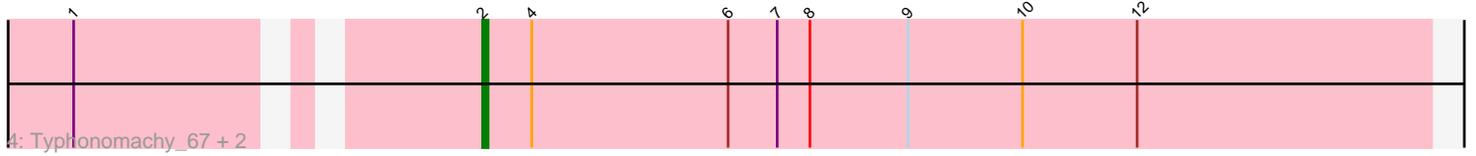
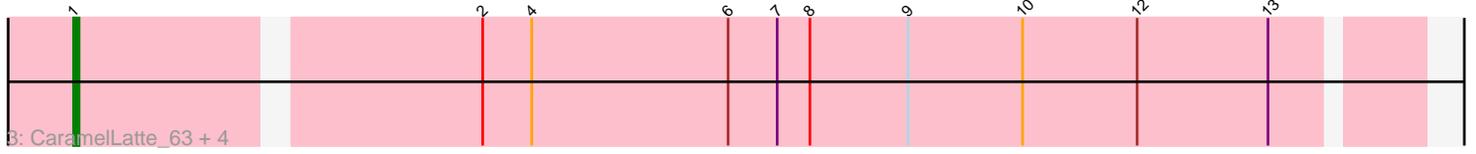
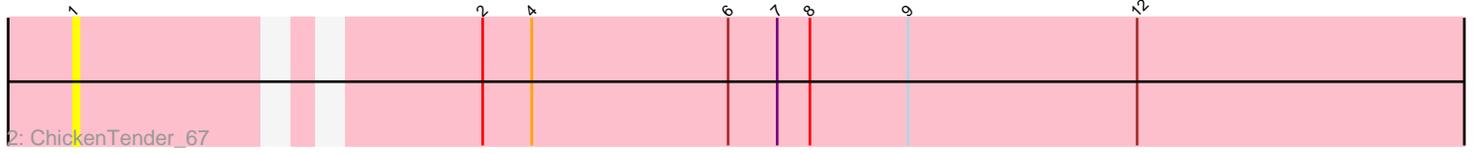
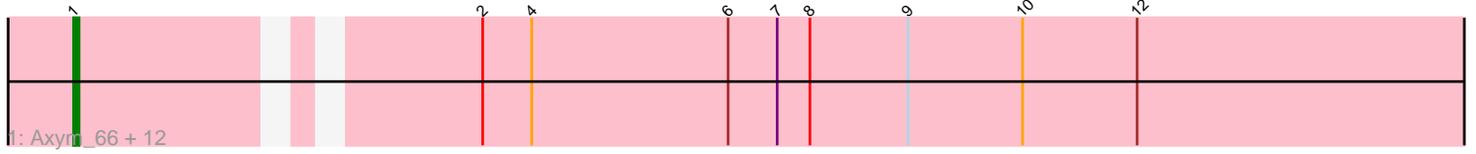


# Pham 291421



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 291421 Report

This analysis was run 03/28/26 on database version 641.

Pham number 291421 has 29 members, 14 are drafts.

Phages represented in each track:

- Track 1 : Axym\_66, Sopespian\_64, GoldHunter\_69, RADical\_69, PsychoKiller\_66, Bubble\_67, Nina\_67, Agatha\_68, Cozz\_67, Socotra\_69, RSchmailzl\_68, Starburst\_69, RedBaron\_73
- Track 2 : ChickenTender\_67
- Track 3 : CaramellLatte\_63, BillDoor\_67, ChocoMunchkin\_63, Tolls\_66, CanesSauce\_63
- Track 4 : Typhonomachy\_67, Burnsey\_67, Quasar\_68
- Track 5 : AndPeggy\_60, Yarn\_61
- Track 6 : Carsonalex\_71
- Track 7 : Emalyn\_65
- Track 8 : Elliott\_67
- Track 9 : MunkgeeRoachy\_66
- Track 10 : SteamedHams\_65

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

The start number called the most often in the published annotations is 1, it was called in 10 of the 15 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Agatha\_68, Axym\_66, BillDoor\_67, Bubble\_67, CanesSauce\_63, CaramellLatte\_63, Carsonalex\_71, ChickenTender\_67, ChocoMunchkin\_63, Cozz\_67, Elliott\_67, Emalyn\_65, GoldHunter\_69, MunkgeeRoachy\_66, Nina\_67, PsychoKiller\_66, RADical\_69, RSchmailzl\_68, RedBaron\_73, Socotra\_69, Sopespian\_64, Starburst\_69, SteamedHams\_65, Tolls\_66,

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

- AndPeggy\_60, Burnsey\_67, Quasar\_68, Typhonomachy\_67, Yarn\_61,

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

- 

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

#### Start 1:

- Found in 29 of 29 ( 100.0% ) of genes in pham
- Manual Annotations of this start: 10 of 15
- Called 82.8% of time when present
- Phage (with cluster) where this start called: Agatha\_68 (CT), Axym\_66 (CT), BillDoor\_67 (CT), Bubble\_67 (CT), CanesSauce\_63 (CT), CaramelLatte\_63 (CT), Carsonalex\_71 (CT), ChickenTender\_67 (CT), ChocoMunchkin\_63 (CT), Cozz\_67 (CT), Elliott\_67 (CT), Emalyn\_65 (CT), GoldHunter\_69 (CT), MunkgeeRoachy\_66 (CT), Nina\_67 (CT), PsychoKiller\_66 (CT), RADical\_69 (CT), RSchmailzl\_68 (CT), RedBaron\_73 (CT), Socotra\_69 (CT), Sopespian\_64 (CT), Starburst\_69 (CT), SteamedHams\_65 (CT), Tolls\_66 (CT),

#### Start 2:

- Found in 29 of 29 ( 100.0% ) of genes in pham
- Manual Annotations of this start: 5 of 15
- Called 17.2% of time when present
- Phage (with cluster) where this start called: AndPeggy\_60 (CT), Burnsey\_67 (CT), Quasar\_68 (CT), Typhonmarchy\_67 (CT), Yarn\_61 (CT),

#### Summary by clusters:

There is one cluster represented in this pham: CT

Info for manual annotations of cluster CT:

- Start number 1 was manually annotated 10 times for cluster CT.
- Start number 2 was manually annotated 5 times for cluster CT.

#### **Gene Information:**

Gene: Agatha\_68 Start: 45224, Stop: 45496, Start Num: 1

Candidate Starts for Agatha\_68:

(Start: 1 @45224 has 10 MA's), (Start: 2 @45287 has 5 MA's), (4, 45296), (6, 45332), (7, 45341), (8, 45347), (9, 45365), (10, 45386), (12, 45407),

Gene: AndPeggy\_60 Start: 43276, Stop: 43449, Start Num: 2

Candidate Starts for AndPeggy\_60:

(Start: 1 @43207 has 10 MA's), (Start: 2 @43276 has 5 MA's), (4, 43285), (6, 43321), (7, 43330), (8, 43336), (9, 43354), (10, 43375), (11, 43393), (12, 43396), (13, 43414),

Gene: Axym\_66 Start: 45099, Stop: 45371, Start Num: 1

Candidate Starts for Axym\_66:

(Start: 1 @45099 has 10 MA's), (Start: 2 @45162 has 5 MA's), (4, 45171), (6, 45207), (7, 45216), (8, 45222), (9, 45240), (10, 45261), (12, 45282),

Gene: BillDoor\_67 Start: 43474, Stop: 43722, Start Num: 1

Candidate Starts for BillDoor\_67:

(Start: 1 @43474 has 10 MA's), (Start: 2 @43543 has 5 MA's), (4, 43552), (6, 43588), (7, 43597), (8, 43603), (9, 43621), (10, 43642), (12, 43663), (13, 43687),

Gene: Bubble\_67 Start: 45154, Stop: 45426, Start Num: 1

Candidate Starts for Bubble\_67:

(Start: 1 @45154 has 10 MA's), (Start: 2 @45217 has 5 MA's), (4, 45226), (6, 45262), (7, 45271), (8, 45277), (9, 45295), (10, 45316), (12, 45337),

Gene: Burnsey\_67 Start: 44874, Stop: 45083, Start Num: 2

Candidate Starts for Burnsey\_67:

(Start: 1 @44811 has 10 MA's), (Start: 2 @44874 has 5 MA's), (4, 44883), (6, 44919), (7, 44928), (8, 44934), (9, 44952), (10, 44973), (12, 44994),

Gene: CanesSauce\_63 Start: 43368, Stop: 43616, Start Num: 1

Candidate Starts for CanesSauce\_63:

(Start: 1 @43368 has 10 MA's), (Start: 2 @43437 has 5 MA's), (4, 43446), (6, 43482), (7, 43491), (8, 43497), (9, 43515), (10, 43536), (12, 43557), (13, 43581),

Gene: CaramellLatte\_63 Start: 43368, Stop: 43616, Start Num: 1

Candidate Starts for CaramellLatte\_63:

(Start: 1 @43368 has 10 MA's), (Start: 2 @43437 has 5 MA's), (4, 43446), (6, 43482), (7, 43491), (8, 43497), (9, 43515), (10, 43536), (12, 43557), (13, 43581),

Gene: Carsonalex\_71 Start: 45269, Stop: 45541, Start Num: 1

Candidate Starts for Carsonalex\_71:

(Start: 1 @45269 has 10 MA's), (Start: 2 @45332 has 5 MA's), (3, 45335), (4, 45341), (6, 45377), (7, 45386), (8, 45392), (9, 45410), (10, 45431), (12, 45452),

Gene: ChickenTender\_67 Start: 43889, Stop: 44161, Start Num: 1

Candidate Starts for ChickenTender\_67:

(Start: 1 @43889 has 10 MA's), (Start: 2 @43952 has 5 MA's), (4, 43961), (6, 43997), (7, 44006), (8, 44012), (9, 44030), (12, 44072),

Gene: ChocoMunchkin\_63 Start: 43368, Stop: 43616, Start Num: 1

Candidate Starts for ChocoMunchkin\_63:

(Start: 1 @43368 has 10 MA's), (Start: 2 @43437 has 5 MA's), (4, 43446), (6, 43482), (7, 43491), (8, 43497), (9, 43515), (10, 43536), (12, 43557), (13, 43581),

Gene: Cozz\_67 Start: 45226, Stop: 45498, Start Num: 1

Candidate Starts for Cozz\_67:

(Start: 1 @45226 has 10 MA's), (Start: 2 @45289 has 5 MA's), (4, 45298), (6, 45334), (7, 45343), (8, 45349), (9, 45367), (10, 45388), (12, 45409),

Gene: Elliott\_67 Start: 44695, Stop: 44967, Start Num: 1

Candidate Starts for Elliott\_67:

(Start: 1 @44695 has 10 MA's), (Start: 2 @44758 has 5 MA's), (4, 44767), (6, 44803), (8, 44818), (9, 44836), (10, 44857), (12, 44878),

Gene: Emalyn\_65 Start: 42894, Stop: 43148, Start Num: 1

Candidate Starts for Emalyn\_65:

(Start: 1 @42894 has 10 MA's), (Start: 2 @42969 has 5 MA's), (5, 42984), (7, 43023), (8, 43029), (9, 43047), (12, 43089),

Gene: GoldHunter\_69 Start: 45215, Stop: 45487, Start Num: 1

Candidate Starts for GoldHunter\_69:

(Start: 1 @45215 has 10 MA's), (Start: 2 @45278 has 5 MA's), (4, 45287), (6, 45323), (7, 45332), (8, 45338), (9, 45356), (10, 45377), (12, 45398),

Gene: MunkgeeRoachy\_66 Start: 44540, Stop: 44803, Start Num: 1  
Candidate Starts for MunkgeeRoachy\_66:  
(Start: 1 @44540 has 10 MA's), (Start: 2 @44603 has 5 MA's), (4, 44612), (6, 44648), (7, 44657), (8, 44663), (9, 44681), (10, 44702), (12, 44723), (13, 44747), (14, 44753),

Gene: Nina\_67 Start: 45298, Stop: 45570, Start Num: 1  
Candidate Starts for Nina\_67:  
(Start: 1 @45298 has 10 MA's), (Start: 2 @45361 has 5 MA's), (4, 45370), (6, 45406), (7, 45415), (8, 45421), (9, 45439), (10, 45460), (12, 45481),

Gene: PsychoKiller\_66 Start: 44696, Stop: 44968, Start Num: 1  
Candidate Starts for PsychoKiller\_66:  
(Start: 1 @44696 has 10 MA's), (Start: 2 @44759 has 5 MA's), (4, 44768), (6, 44804), (7, 44813), (8, 44819), (9, 44837), (10, 44858), (12, 44879),

Gene: Quasar\_68 Start: 45648, Stop: 45857, Start Num: 2  
Candidate Starts for Quasar\_68:  
(Start: 1 @45585 has 10 MA's), (Start: 2 @45648 has 5 MA's), (4, 45657), (6, 45693), (7, 45702), (8, 45708), (9, 45726), (10, 45747), (12, 45768),

Gene: RADical\_69 Start: 45102, Stop: 45374, Start Num: 1  
Candidate Starts for RADical\_69:  
(Start: 1 @45102 has 10 MA's), (Start: 2 @45165 has 5 MA's), (4, 45174), (6, 45210), (7, 45219), (8, 45225), (9, 45243), (10, 45264), (12, 45285),

Gene: RSchmailzl\_68 Start: 45118, Stop: 45390, Start Num: 1  
Candidate Starts for RSchmailzl\_68:  
(Start: 1 @45118 has 10 MA's), (Start: 2 @45181 has 5 MA's), (4, 45190), (6, 45226), (7, 45235), (8, 45241), (9, 45259), (10, 45280), (12, 45301),

Gene: RedBaron\_73 Start: 46122, Stop: 46394, Start Num: 1  
Candidate Starts for RedBaron\_73:  
(Start: 1 @46122 has 10 MA's), (Start: 2 @46185 has 5 MA's), (4, 46194), (6, 46230), (7, 46239), (8, 46245), (9, 46263), (10, 46284), (12, 46305),

Gene: Socotra\_69 Start: 45208, Stop: 45480, Start Num: 1  
Candidate Starts for Socotra\_69:  
(Start: 1 @45208 has 10 MA's), (Start: 2 @45271 has 5 MA's), (4, 45280), (6, 45316), (7, 45325), (8, 45331), (9, 45349), (10, 45370), (12, 45391),

Gene: Sopespian\_64 Start: 44697, Stop: 44969, Start Num: 1  
Candidate Starts for Sopespian\_64:  
(Start: 1 @44697 has 10 MA's), (Start: 2 @44760 has 5 MA's), (4, 44769), (6, 44805), (7, 44814), (8, 44820), (9, 44838), (10, 44859), (12, 44880),

Gene: Starburst\_69 Start: 45104, Stop: 45376, Start Num: 1  
Candidate Starts for Starburst\_69:  
(Start: 1 @45104 has 10 MA's), (Start: 2 @45167 has 5 MA's), (4, 45176), (6, 45212), (7, 45221), (8, 45227), (9, 45245), (10, 45266), (12, 45287),

Gene: SteamedHams\_65 Start: 43184, Stop: 43432, Start Num: 1  
Candidate Starts for SteamedHams\_65:

(Start: 1 @43184 has 10 MA's), (Start: 2 @43253 has 5 MA's), (4, 43262), (6, 43298), (7, 43307), (8, 43313), (9, 43331), (10, 43352), (11, 43370), (12, 43373), (13, 43397),

Gene: Tolls\_66 Start: 43455, Stop: 43703, Start Num: 1

Candidate Starts for Tolls\_66:

(Start: 1 @43455 has 10 MA's), (Start: 2 @43524 has 5 MA's), (4, 43533), (6, 43569), (7, 43578), (8, 43584), (9, 43602), (10, 43623), (12, 43644), (13, 43668),

Gene: Typhonomachy\_67 Start: 44986, Stop: 45186, Start Num: 2

Candidate Starts for Typhonomachy\_67:

(Start: 1 @44923 has 10 MA's), (Start: 2 @44986 has 5 MA's), (4, 44995), (6, 45031), (7, 45040), (8, 45046), (9, 45064), (10, 45085), (12, 45106),

Gene: Yarn\_61 Start: 43281, Stop: 43460, Start Num: 2

Candidate Starts for Yarn\_61:

(Start: 1 @43212 has 10 MA's), (Start: 2 @43281 has 5 MA's), (4, 43290), (6, 43326), (7, 43335), (8, 43341), (9, 43359), (10, 43380), (11, 43398), (12, 43401), (13, 43425),