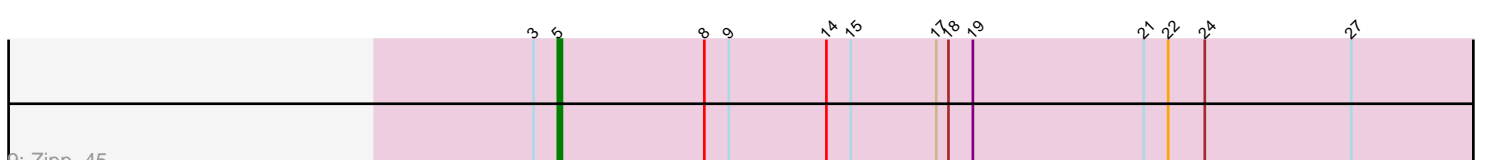
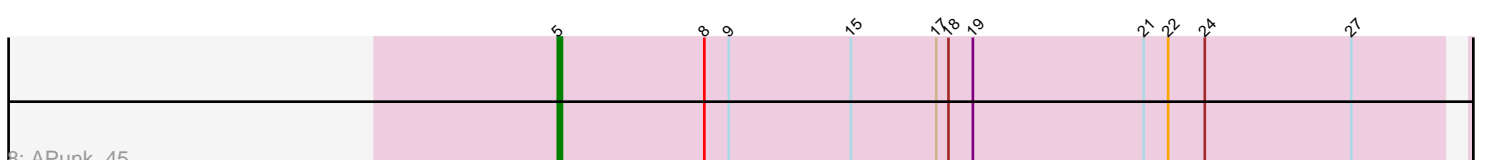
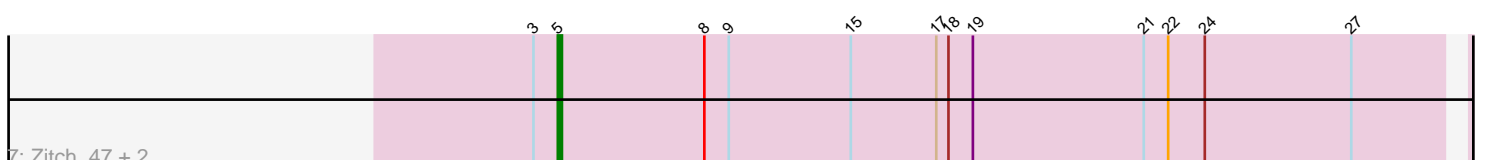
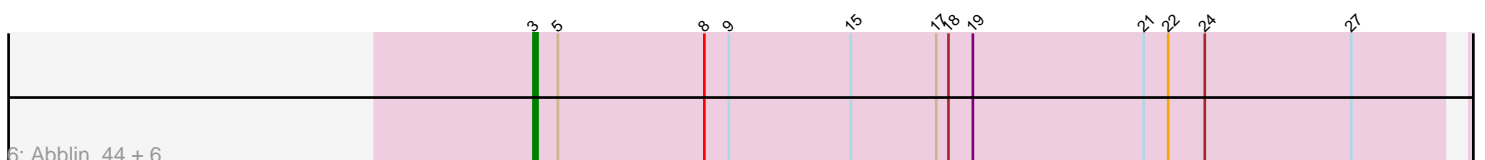
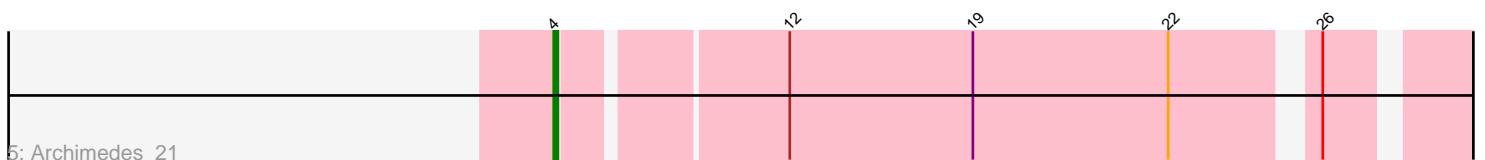
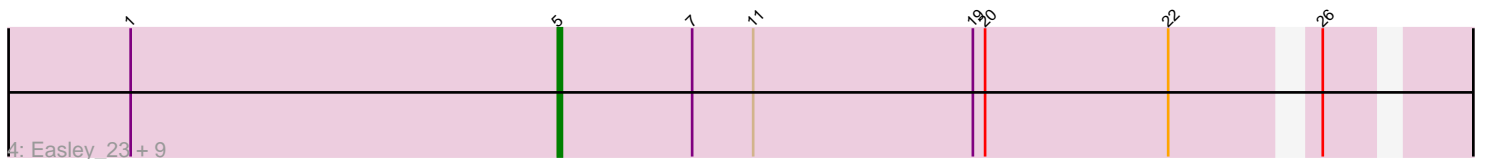
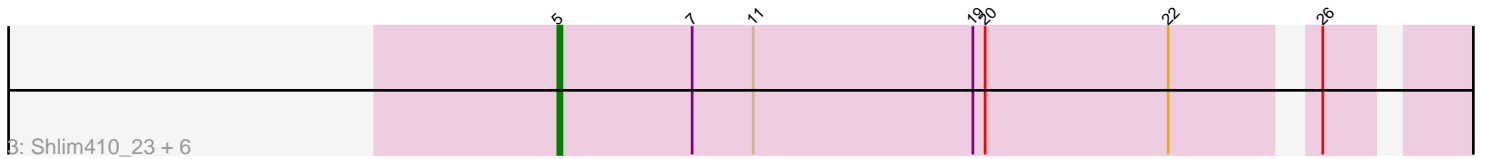
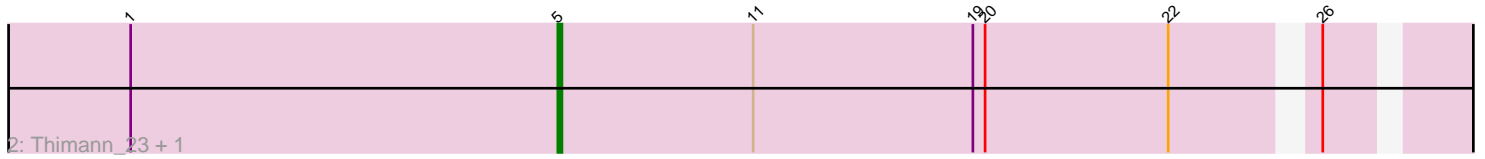
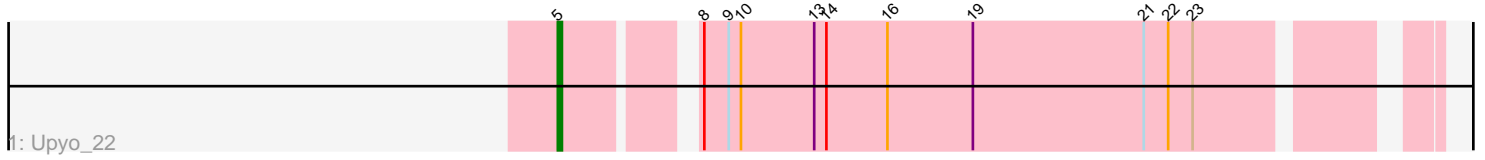


# Pham 216387



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 216387 Report

This analysis was run 02/22/25 on database version 588.

Pham number 216387 has 34 members, 3 are drafts.

Phages represented in each track:

- Track 1 : Upyo\_22
- Track 2 : Thimann\_23, Suerte\_21
- Track 3 : Shlim410\_23, Howe\_23, Beenie\_23, Twinkle\_23, Mcklovin\_23, Hortense\_23, Adora\_23
- Track 4 : Easley\_23, Dolores\_23, MichaelScott\_23, Sekhmet\_23, Samman98\_23, DobbysSock\_22, WinkNick\_23, Clark\_23, Oregano\_23, Annalisa\_23
- Track 5 : Archimedes\_21
- Track 6 : Abblin\_44, Delrey21\_44, Verity\_44, Natkenzie\_44, Scioto\_45, Tardus\_45, DoctorFroggo\_44
- Track 7 : Zitch\_47, ViaConlectus\_44, Sampson\_44
- Track 8 : APunk\_45
- Track 9 : Zipp\_45
- Track 10 : Tonitrus\_33

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

The start number called the most often in the published annotations is 5, it was called in 25 of the 31 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- APunk\_45, Adora\_23, Annalisa\_23, Beenie\_23, Clark\_23, DobbysSock\_22, Dolores\_23, Easley\_23, Hortense\_23, Howe\_23, Mcklovin\_23, MichaelScott\_23, Oregano\_23, Samman98\_23, Sampson\_44, Sekhmet\_23, Shlim410\_23, Suerte\_21, Thimann\_23, Twinkle\_23, Upyo\_22, ViaConlectus\_44, WinkNick\_23, Zipp\_45, Zitch\_47,

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

- Abblin\_44, Delrey21\_44, DoctorFroggo\_44, Natkenzie\_44, Scioto\_45, Tardus\_45, Verity\_44,

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

- Archimedes\_21, Tonitrus\_33,

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

Start 3:

- Found in 11 of 34 ( 32.4% ) of genes in pham
- Manual Annotations of this start: 4 of 31
- Called 63.6% of time when present
- Phage (with cluster) where this start called: Abblin\_44 (DE4), Delrey21\_44 (DE4), DoctorFroggo\_44 (DE4), Natkenzie\_44 (DE4), Scioto\_45 (DE4), Tardus\_45 (DE4), Verity\_44 (DE4),

Start 4:

- Found in 1 of 34 ( 2.9% ) of genes in pham
- Manual Annotations of this start: 1 of 31
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Archimedes\_21 (DA),

Start 5:

- Found in 32 of 34 ( 94.1% ) of genes in pham
- Manual Annotations of this start: 25 of 31
- Called 78.1% of time when present
- Phage (with cluster) where this start called: APunk\_45 (DE4), Adora\_23 (CZ4), Annalisa\_23 (CZ4), Beenie\_23 (CZ4), Clark\_23 (CZ4), DobbysSock\_22 (CZ4), Dolores\_23 (CZ4), Easley\_23 (CZ4), Hortense\_23 (CZ4), Howe\_23 (CZ4), Mcklovin\_23 (CZ4), MichaelScott\_23 (CZ4), Oregano\_23 (CZ4), Samman98\_23 (CZ4), Sampson\_44 (DE4), Sekhmet\_23 (CZ4), Shlim410\_23 (CZ4), Suerte\_21 (CZ4), Thimann\_23 (CZ4), Twinkle\_23 (CZ4), Upyo\_22 (CD), ViaConlectus\_44 (DE4), WinkNick\_23 (CZ4), Zipp\_45 (DE4), Zitch\_47 (DE4),

Start 6:

- Found in 1 of 34 ( 2.9% ) of genes in pham
- Manual Annotations of this start: 1 of 31
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Tonitrus\_33 (singleton),

**Summary by clusters:**

There are 5 clusters represented in this pham: singleton, CD, DE4, CZ4, DA,

Info for manual annotations of cluster CD:

- Start number 5 was manually annotated 1 time for cluster CD.

Info for manual annotations of cluster CZ4:

- Start number 5 was manually annotated 19 times for cluster CZ4.

Info for manual annotations of cluster DA:

- Start number 4 was manually annotated 1 time for cluster DA.

Info for manual annotations of cluster DE4:

- Start number 3 was manually annotated 4 times for cluster DE4.
- Start number 5 was manually annotated 5 times for cluster DE4.

**Gene Information:**

Gene: APunk\_45 Start: 39354, Stop: 39626, Start Num: 5

Candidate Starts for APunk\_45:

(Start: 5 @39354 has 25 MA's), (8, 39390), (9, 39396), (15, 39426), (17, 39447), (18, 39450), (19, 39456), (21, 39498), (22, 39504), (24, 39513), (27, 39549),

Gene: Abblin\_44 Start: 39885, Stop: 40163, Start Num: 3

Candidate Starts for Abblin\_44:

(Start: 3 @39885 has 4 MA's), (Start: 5 @39891 has 25 MA's), (8, 39927), (9, 39933), (15, 39963), (17, 39984), (18, 39987), (19, 39993), (21, 40035), (22, 40041), (24, 40050), (27, 40086),

Gene: Adora\_23 Start: 21051, Stop: 21284, Start Num: 5

Candidate Starts for Adora\_23:

(Start: 5 @21051 has 25 MA's), (7, 21084), (11, 21099), (19, 21153), (20, 21156), (22, 21201), (26, 21231),

Gene: Annalisa\_23 Start: 20513, Stop: 20746, Start Num: 5

Candidate Starts for Annalisa\_23:

(1, 20408), (Start: 5 @20513 has 25 MA's), (7, 20546), (11, 20561), (19, 20615), (20, 20618), (22, 20663), (26, 20693),

Gene: Archimedes\_21 Start: 19115, Stop: 19348, Start Num: 4

Candidate Starts for Archimedes\_21:

(Start: 4 @19115 has 1 MA's), (12, 19166), (19, 19211), (22, 19259), (26, 19289),

Gene: Beenie\_23 Start: 20870, Stop: 21103, Start Num: 5

Candidate Starts for Beenie\_23:

(Start: 5 @20870 has 25 MA's), (7, 20903), (11, 20918), (19, 20972), (20, 20975), (22, 21020), (26, 21050),

Gene: Clark\_23 Start: 20513, Stop: 20746, Start Num: 5

Candidate Starts for Clark\_23:

(1, 20408), (Start: 5 @20513 has 25 MA's), (7, 20546), (11, 20561), (19, 20615), (20, 20618), (22, 20663), (26, 20693),

Gene: Delrey21\_44 Start: 40650, Stop: 40928, Start Num: 3

Candidate Starts for Delrey21\_44:

(Start: 3 @40650 has 4 MA's), (Start: 5 @40656 has 25 MA's), (8, 40692), (9, 40698), (15, 40728), (17, 40749), (18, 40752), (19, 40758), (21, 40800), (22, 40806), (24, 40815), (27, 40851),

Gene: DobbysSock\_22 Start: 19987, Stop: 20220, Start Num: 5

Candidate Starts for DobbysSock\_22:

(1, 19882), (Start: 5 @19987 has 25 MA's), (7, 20020), (11, 20035), (19, 20089), (20, 20092), (22, 20137), (26, 20167),

Gene: DoctorFroggo\_44 Start: 40650, Stop: 40928, Start Num: 3

Candidate Starts for DoctorFroggo\_44:

(Start: 3 @40650 has 4 MA's), (Start: 5 @40656 has 25 MA's), (8, 40692), (9, 40698), (15, 40728), (17, 40749), (18, 40752), (19, 40758), (21, 40800), (22, 40806), (24, 40815), (27, 40851),

Gene: Dolores\_23 Start: 20489, Stop: 20722, Start Num: 5

Candidate Starts for Dolores\_23:

(1, 20384), (Start: 5 @20489 has 25 MA's), (7, 20522), (11, 20537), (19, 20591), (20, 20594), (22, 20639), (26, 20669),

Gene: Easley\_23 Start: 20499, Stop: 20732, Start Num: 5

Candidate Starts for Easley\_23:

(1, 20394), (Start: 5 @20499 has 25 MA's), (7, 20532), (11, 20547), (19, 20601), (20, 20604), (22, 20649), (26, 20679),

Gene: Hortense\_23 Start: 21098, Stop: 21331, Start Num: 5

Candidate Starts for Hortense\_23:

(Start: 5 @21098 has 25 MA's), (7, 21131), (11, 21146), (19, 21200), (20, 21203), (22, 21248), (26, 21278),

Gene: Howe\_23 Start: 21098, Stop: 21331, Start Num: 5

Candidate Starts for Howe\_23:

(Start: 5 @21098 has 25 MA's), (7, 21131), (11, 21146), (19, 21200), (20, 21203), (22, 21248), (26, 21278),

Gene: Mcklovin\_23 Start: 23267, Stop: 23500, Start Num: 5

Candidate Starts for Mcklovin\_23:

(Start: 5 @23267 has 25 MA's), (7, 23300), (11, 23315), (19, 23369), (20, 23372), (22, 23417), (26, 23447),

Gene: MichaelScott\_23 Start: 20870, Stop: 21103, Start Num: 5

Candidate Starts for MichaelScott\_23:

(1, 20765), (Start: 5 @20870 has 25 MA's), (7, 20903), (11, 20918), (19, 20972), (20, 20975), (22, 21020), (26, 21050),

Gene: Natkenzie\_44 Start: 39885, Stop: 40163, Start Num: 3

Candidate Starts for Natkenzie\_44:

(Start: 3 @39885 has 4 MA's), (Start: 5 @39891 has 25 MA's), (8, 39927), (9, 39933), (15, 39963), (17, 39984), (18, 39987), (19, 39993), (21, 40035), (22, 40041), (24, 40050), (27, 40086),

Gene: Oregano\_23 Start: 20535, Stop: 20768, Start Num: 5

Candidate Starts for Oregano\_23:

(1, 20430), (Start: 5 @20535 has 25 MA's), (7, 20568), (11, 20583), (19, 20637), (20, 20640), (22, 20685), (26, 20715),

Gene: Samman98\_23 Start: 20504, Stop: 20737, Start Num: 5

Candidate Starts for Samman98\_23:

(1, 20399), (Start: 5 @20504 has 25 MA's), (7, 20537), (11, 20552), (19, 20606), (20, 20609), (22, 20654), (26, 20684),

Gene: Sampson\_44 Start: 39836, Stop: 40108, Start Num: 5

Candidate Starts for Sampson\_44:

(Start: 3 @39830 has 4 MA's), (Start: 5 @39836 has 25 MA's), (8, 39872), (9, 39878), (15, 39908), (17, 39929), (18, 39932), (19, 39938), (21, 39980), (22, 39986), (24, 39995), (27, 40031),

Gene: Scioto\_45 Start: 39886, Stop: 40164, Start Num: 3

Candidate Starts for Scioto\_45:

(Start: 3 @39886 has 4 MA's), (Start: 5 @39892 has 25 MA's), (8, 39928), (9, 39934), (15, 39964), (17, 39985), (18, 39988), (19, 39994), (21, 40036), (22, 40042), (24, 40051), (27, 40087),

Gene: Sekhmet\_23 Start: 20864, Stop: 21097, Start Num: 5

Candidate Starts for Sekhmet\_23:

(1, 20759), (Start: 5 @20864 has 25 MA's), (7, 20897), (11, 20912), (19, 20966), (20, 20969), (22, 21014), (26, 21044),

Gene: Shlim410\_23 Start: 21098, Stop: 21331, Start Num: 5

Candidate Starts for Shlim410\_23:

(Start: 5 @21098 has 25 MA's), (7, 21131), (11, 21146), (19, 21200), (20, 21203), (22, 21248), (26, 21278),

Gene: Suerte\_21 Start: 19988, Stop: 20221, Start Num: 5

Candidate Starts for Suerte\_21:

(1, 19883), (Start: 5 @19988 has 25 MA's), (11, 20036), (19, 20090), (20, 20093), (22, 20138), (26, 20168),

Gene: Tardus\_45 Start: 39240, Stop: 39518, Start Num: 3

Candidate Starts for Tardus\_45:

(Start: 3 @39240 has 4 MA's), (Start: 5 @39246 has 25 MA's), (8, 39282), (9, 39288), (15, 39318), (17, 39339), (18, 39342), (19, 39348), (21, 39390), (22, 39396), (24, 39405), (27, 39441),

Gene: Thimann\_23 Start: 20456, Stop: 20689, Start Num: 5

Candidate Starts for Thimann\_23:

(1, 20351), (Start: 5 @20456 has 25 MA's), (11, 20504), (19, 20558), (20, 20561), (22, 20606), (26, 20636),

Gene: Tonitrus\_33 Start: 22454, Stop: 22666, Start Num: 6

Candidate Starts for Tonitrus\_33:

(2, 22436), (Start: 6 @22454 has 1 MA's), (15, 22520), (19, 22550), (24, 22607), (25, 22610),

Gene: Twinkle\_23 Start: 22157, Stop: 22390, Start Num: 5

Candidate Starts for Twinkle\_23:

(Start: 5 @22157 has 25 MA's), (7, 22190), (11, 22205), (19, 22259), (20, 22262), (22, 22307), (26, 22337),

Gene: Upyo\_22 Start: 18567, Stop: 18791, Start Num: 5

Candidate Starts for Upyo\_22:

(Start: 5 @18567 has 25 MA's), (8, 18594), (9, 18600), (10, 18603), (13, 18621), (14, 18624), (16, 18639), (19, 18660), (21, 18702), (22, 18708), (23, 18714),

Gene: Verity\_44 Start: 40650, Stop: 40928, Start Num: 3

Candidate Starts for Verity\_44:

(Start: 3 @40650 has 4 MA's), (Start: 5 @40656 has 25 MA's), (8, 40692), (9, 40698), (15, 40728), (17, 40749), (18, 40752), (19, 40758), (21, 40800), (22, 40806), (24, 40815), (27, 40851),

Gene: ViaConlectus\_44 Start: 38526, Stop: 38798, Start Num: 5

Candidate Starts for ViaConlectus\_44:

(Start: 3 @38520 has 4 MA's), (Start: 5 @38526 has 25 MA's), (8, 38562), (9, 38568), (15, 38598), (17, 38619), (18, 38622), (19, 38628), (21, 38670), (22, 38676), (24, 38685), (27, 38721),

Gene: WinkNick\_23 Start: 20489, Stop: 20722, Start Num: 5

Candidate Starts for WinkNick\_23:

(1, 20384), (Start: 5 @20489 has 25 MA's), (7, 20522), (11, 20537), (19, 20591), (20, 20594), (22, 20639), (26, 20669),

Gene: Zipp\_45 Start: 40565, Stop: 40843, Start Num: 5

Candidate Starts for Zipp\_45:

(Start: 3 @40559 has 4 MA's), (Start: 5 @40565 has 25 MA's), (8, 40601), (9, 40607), (14, 40631), (15, 40637), (17, 40658), (18, 40661), (19, 40667), (21, 40709), (22, 40715), (24, 40724), (27, 40760),

Gene: Zitch\_47 Start: 38681, Stop: 38953, Start Num: 5

Candidate Starts for Zitch\_47:

(Start: 3 @38675 has 4 MA's), (Start: 5 @38681 has 25 MA's), (8, 38717), (9, 38723), (15, 38753), (17, 38774), (18, 38777), (19, 38783), (21, 38825), (22, 38831), (24, 38840), (27, 38876),