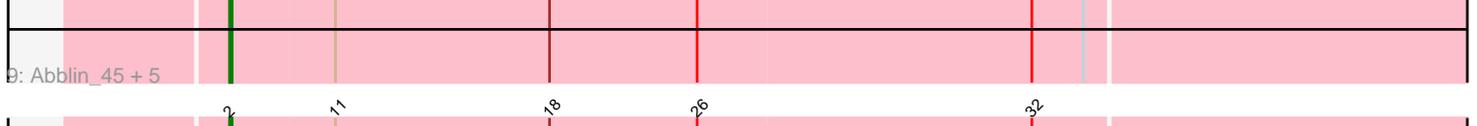
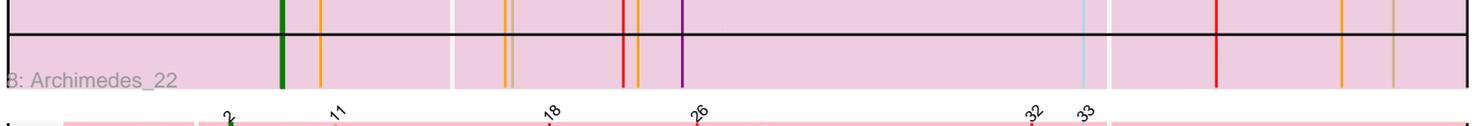
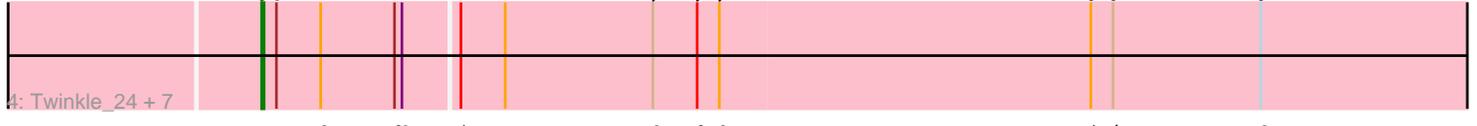
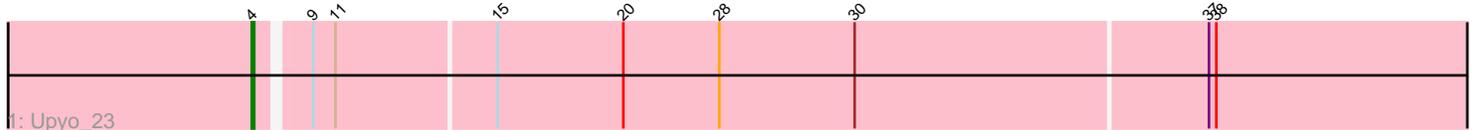


Pham 291344



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 291344 Report

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

Pham number 291344 has 37 members, 7 are drafts.

Phages represented in each track:

- Track 1 : Upyo\_23
- Track 2 : RegnumDei\_28
- Track 3 : CurlyFries\_30
- Track 4 : Twinkle\_24, Shlim410\_24, Howe\_24, Beenie\_24, Sekhmet\_24, Hortense\_24, Adora\_24, Annalisa\_24
- Track 5 : Easley\_24
- Track 6 : Dolores\_24, Samman98\_24, MichaelScott\_24, DobbysSock\_23, Mcklovin\_24, WinkNick\_24, Clark\_24, Oregano\_24
- Track 7 : Thimann\_24, Suerte\_22
- Track 8 : Archimedes\_22
- Track 9 : Abblin\_45, Scioto\_46, Natkenzie\_45, ViaConlectus\_45, Sampson\_45, Tardus\_46
- Track 10 : Zitch\_48, APunk\_46, BigHunkinEater\_47, Pumpkiney\_46
- Track 11 : Delrey21\_45, Verity\_45, DoctorFroggo\_45
- Track 12 : Zipp\_46

### ***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 18 of the 30 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Adora\_24, Annalisa\_24, Beenie\_24, Clark\_24, DobbysSock\_23, Dolores\_24, Hortense\_24, Howe\_24, Mcklovin\_24, MichaelScott\_24, Oregano\_24, Samman98\_24, Sekhmet\_24, Shlim410\_24, Suerte\_22, Thimann\_24, Twinkle\_24, WinkNick\_24,

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

- Easley\_24,

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

- APunk\_46, Abblin\_45, Archimedes\_22, BigHunkinEater\_47, CurlyFries\_30, Delrey21\_45, DoctorFroggo\_45, Natkenzie\_45, Pumpkiney\_46, RegnumDei\_28, Sampson\_45, Scioto\_46, Tardus\_46, Upyo\_23, Verity\_45, ViaConlectus\_45,

Zipp\_46, Zitch\_48,

### Summary by start number:

#### Start 2:

- Found in 14 of 37 ( 37.8% ) of genes in pham
- Manual Annotations of this start: 9 of 30
- Called 100.0% of time when present
- Phage (with cluster) where this start called: APunk\_46 (DE4), Abblin\_45 (DE4), BigHunkinEater\_47 (DE4), Delrey21\_45 (DE4), DoctorFroggo\_45 (DE4), Natkenzie\_45 (DE4), Pumpkiney\_46 (DE4), Sampson\_45 (DE4), Scioto\_46 (DE4), Tardus\_46 (DE4), Verity\_45 (DE4), ViaConlectus\_45 (DE4), Zipp\_46 (DE4), Zitch\_48 (DE4),

#### Start 3:

- Found in 2 of 37 ( 5.4% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: CurlyFries\_30 (CF), RegnumDei\_28 (CF),

#### Start 4:

- Found in 1 of 37 ( 2.7% ) of genes in pham
- Manual Annotations of this start: 1 of 30
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Upyo\_23 (CD),

#### Start 5:

- Found in 19 of 37 ( 51.4% ) of genes in pham
- Manual Annotations of this start: 18 of 30
- Called 94.7% of time when present
- Phage (with cluster) where this start called: Adora\_24 (CZ4), Annalisa\_24 (CZ4), Beenie\_24 (CZ4), Clark\_24 (CZ4), DobbysSock\_23 (CZ4), Dolores\_24 (CZ4), Hortense\_24 (CZ4), Howe\_24 (CZ4), Mcklovin\_24 (CZ4), MichaelScott\_24 (CZ4), Oregano\_24 (CZ4), Samman98\_24 (CZ4), Sekhmet\_24 (CZ4), Shlim410\_24 (CZ4), Suerte\_22 (CZ4), Thimann\_24 (CZ4), Twinkle\_24 (CZ4), WinkNick\_24 (CZ4),

#### Start 6:

- Found in 19 of 37 ( 51.4% ) of genes in pham
- Manual Annotations of this start: 1 of 30
- Called 5.3% of time when present
- Phage (with cluster) where this start called: Easley\_24 (CZ4),

#### Start 7:

- Found in 1 of 37 ( 2.7% ) of genes in pham
- Manual Annotations of this start: 1 of 30
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Archimedes\_22 (DA),

### Summary by clusters:

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

Info for manual annotations of cluster CD:

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

Info for manual annotations of cluster CZ4:

- Start number 5 was manually annotated 18 times for cluster CZ4.
- Start number 6 was manually annotated 1 time for cluster CZ4.

Info for manual annotations of cluster DA:

- Start number 7 was manually annotated 1 time for cluster DA.

Info for manual annotations of cluster DE4:

- Start number 2 was manually annotated 9 times for cluster DE4.

### ***Gene Information:***

Gene: APunk\_46 Start: 39623, Stop: 40141, Start Num: 2

Candidate Starts for APunk\_46:

(Start: 2 @39623 has 9 MA's), (11, 39665), (18, 39752), (26, 39812), (32, 39947),

Gene: Abblin\_45 Start: 40160, Stop: 40678, Start Num: 2

Candidate Starts for Abblin\_45:

(Start: 2 @40160 has 9 MA's), (11, 40202), (18, 40289), (26, 40349), (32, 40484), (33, 40505),

Gene: Adora\_24 Start: 21281, Stop: 21787, Start Num: 5

Candidate Starts for Adora\_24:

(Start: 5 @21281 has 18 MA's), (Start: 6 @21287 has 1 MA's), (10, 21305), (12, 21335), (13, 21338), (14, 21359), (16, 21377), (23, 21437), (26, 21455), (28, 21464), (34, 21614), (35, 21623), (39, 21683),

Gene: Annalisa\_24 Start: 20743, Stop: 21249, Start Num: 5

Candidate Starts for Annalisa\_24:

(Start: 5 @20743 has 18 MA's), (Start: 6 @20749 has 1 MA's), (10, 20767), (12, 20797), (13, 20800), (14, 20821), (16, 20839), (23, 20899), (26, 20917), (28, 20926), (34, 21076), (35, 21085), (39, 21145),

Gene: Archimedes\_22 Start: 19353, Stop: 19844, Start Num: 7

Candidate Starts for Archimedes\_22:

(Start: 7 @19353 has 1 MA's), (10, 19368), (16, 19440), (17, 19443), (20, 19488), (22, 19494), (25, 19512), (33, 19674), (38, 19725), (40, 19776), (41, 19797),

Gene: Beenie\_24 Start: 21100, Stop: 21606, Start Num: 5

Candidate Starts for Beenie\_24:

(Start: 5 @21100 has 18 MA's), (Start: 6 @21106 has 1 MA's), (10, 21124), (12, 21154), (13, 21157), (14, 21178), (16, 21196), (23, 21256), (26, 21274), (28, 21283), (34, 21433), (35, 21442), (39, 21502),

Gene: BigHunkinEater\_47 Start: 39401, Stop: 39919, Start Num: 2

Candidate Starts for BigHunkinEater\_47:

(Start: 2 @39401 has 9 MA's), (11, 39443), (18, 39530), (26, 39590), (32, 39725),

Gene: Clark\_24 Start: 20743, Stop: 21249, Start Num: 5

Candidate Starts for Clark\_24:

(Start: 5 @20743 has 18 MA's), (Start: 6 @20749 has 1 MA's), (10, 20767), (12, 20797), (13, 20800), (14, 20821), (23, 20899), (26, 20917), (28, 20926), (34, 21076), (35, 21085), (39, 21145),

Gene: CurlyFries\_30 Start: 25600, Stop: 26106, Start Num: 3

Candidate Starts for CurlyFries\_30:

(1, 25537), (3, 25600), (8, 25624), (13, 25663), (14, 25684), (19, 25741), (21, 25753), (24, 25765), (27, 25783), (29, 25825), (38, 25987),

Gene: Delrey21\_45 Start: 40925, Stop: 41440, Start Num: 2

Candidate Starts for Delrey21\_45:

(Start: 2 @40925 has 9 MA's), (11, 40967), (18, 41054), (26, 41114), (31, 41216), (32, 41249), (33, 41270),

Gene: DobbysSock\_23 Start: 20217, Stop: 20723, Start Num: 5

Candidate Starts for DobbysSock\_23:

(Start: 5 @20217 has 18 MA's), (Start: 6 @20223 has 1 MA's), (10, 20241), (12, 20271), (13, 20274), (14, 20295), (23, 20373), (26, 20391), (28, 20400), (34, 20550), (35, 20559), (39, 20619),

Gene: DoctorFroggo\_45 Start: 40925, Stop: 41440, Start Num: 2

Candidate Starts for DoctorFroggo\_45:

(Start: 2 @40925 has 9 MA's), (11, 40967), (18, 41054), (26, 41114), (31, 41216), (32, 41249), (33, 41270),

Gene: Dolores\_24 Start: 20719, Stop: 21225, Start Num: 5

Candidate Starts for Dolores\_24:

(Start: 5 @20719 has 18 MA's), (Start: 6 @20725 has 1 MA's), (10, 20743), (12, 20773), (13, 20776), (14, 20797), (23, 20875), (26, 20893), (28, 20902), (34, 21052), (35, 21061), (39, 21121),

Gene: Easley\_24 Start: 20735, Stop: 21235, Start Num: 6

Candidate Starts for Easley\_24:

(Start: 5 @20729 has 18 MA's), (Start: 6 @20735 has 1 MA's), (10, 20753), (12, 20783), (13, 20786), (14, 20807), (23, 20885), (26, 20903), (28, 20912), (34, 21062), (35, 21071), (39, 21131),

Gene: Hortense\_24 Start: 21328, Stop: 21834, Start Num: 5

Candidate Starts for Hortense\_24:

(Start: 5 @21328 has 18 MA's), (Start: 6 @21334 has 1 MA's), (10, 21352), (12, 21382), (13, 21385), (14, 21406), (16, 21424), (23, 21484), (26, 21502), (28, 21511), (34, 21661), (35, 21670), (39, 21730),

Gene: Howe\_24 Start: 21328, Stop: 21834, Start Num: 5

Candidate Starts for Howe\_24:

(Start: 5 @21328 has 18 MA's), (Start: 6 @21334 has 1 MA's), (10, 21352), (12, 21382), (13, 21385), (14, 21406), (16, 21424), (23, 21484), (26, 21502), (28, 21511), (34, 21661), (35, 21670), (39, 21730),

Gene: Mcklovin\_24 Start: 23497, Stop: 24003, Start Num: 5

Candidate Starts for Mcklovin\_24:

(Start: 5 @23497 has 18 MA's), (Start: 6 @23503 has 1 MA's), (10, 23521), (12, 23551), (13, 23554), (14, 23575), (23, 23653), (26, 23671), (28, 23680), (34, 23830), (35, 23839), (39, 23899),

Gene: MichaelScott\_24 Start: 21100, Stop: 21606, Start Num: 5

Candidate Starts for MichaelScott\_24:

(Start: 5 @21100 has 18 MA's), (Start: 6 @21106 has 1 MA's), (10, 21124), (12, 21154), (13, 21157), (14, 21178), (23, 21256), (26, 21274), (28, 21283), (34, 21433), (35, 21442), (39, 21502),

Gene: Natkenzie\_45 Start: 40160, Stop: 40678, Start Num: 2

Candidate Starts for Natkenzie\_45:

(Start: 2 @40160 has 9 MA's), (11, 40202), (18, 40289), (26, 40349), (32, 40484), (33, 40505),

Gene: Oregano\_24 Start: 20765, Stop: 21271, Start Num: 5

Candidate Starts for Oregano\_24:

(Start: 5 @20765 has 18 MA's), (Start: 6 @20771 has 1 MA's), (10, 20789), (12, 20819), (13, 20822), (14, 20843), (23, 20921), (26, 20939), (28, 20948), (34, 21098), (35, 21107), (39, 21167),

Gene: Pumpkiney\_46 Start: 37481, Stop: 37999, Start Num: 2

Candidate Starts for Pumpkiney\_46:

(Start: 2 @37481 has 9 MA's), (11, 37523), (18, 37610), (26, 37670), (32, 37805),

Gene: RegnumDei\_28 Start: 26352, Stop: 26855, Start Num: 3

Candidate Starts for RegnumDei\_28:

(1, 26286), (3, 26352), (8, 26376), (13, 26415), (14, 26436), (19, 26493), (21, 26505), (24, 26517), (28, 26541), (29, 26577), (34, 26691), (36, 26700), (38, 26736),

Gene: Samman98\_24 Start: 20734, Stop: 21240, Start Num: 5

Candidate Starts for Samman98\_24:

(Start: 5 @20734 has 18 MA's), (Start: 6 @20740 has 1 MA's), (10, 20758), (12, 20788), (13, 20791), (14, 20812), (23, 20890), (26, 20908), (28, 20917), (34, 21067), (35, 21076), (39, 21136),

Gene: Sampson\_45 Start: 40105, Stop: 40623, Start Num: 2

Candidate Starts for Sampson\_45:

(Start: 2 @40105 has 9 MA's), (11, 40147), (18, 40234), (26, 40294), (32, 40429), (33, 40450),

Gene: Scioto\_46 Start: 40161, Stop: 40679, Start Num: 2

Candidate Starts for Scioto\_46:

(Start: 2 @40161 has 9 MA's), (11, 40203), (18, 40290), (26, 40350), (32, 40485), (33, 40506),

Gene: Sekhmet\_24 Start: 21094, Stop: 21600, Start Num: 5

Candidate Starts for Sekhmet\_24:

(Start: 5 @21094 has 18 MA's), (Start: 6 @21100 has 1 MA's), (10, 21118), (12, 21148), (13, 21151), (14, 21172), (16, 21190), (23, 21250), (26, 21268), (28, 21277), (34, 21427), (35, 21436), (39, 21496),

Gene: Shlim410\_24 Start: 21328, Stop: 21834, Start Num: 5

Candidate Starts for Shlim410\_24:

(Start: 5 @21328 has 18 MA's), (Start: 6 @21334 has 1 MA's), (10, 21352), (12, 21382), (13, 21385), (14, 21406), (16, 21424), (23, 21484), (26, 21502), (28, 21511), (34, 21661), (35, 21670), (39, 21730),

Gene: Suerte\_22 Start: 20218, Stop: 20724, Start Num: 5

Candidate Starts for Suerte\_22:

(Start: 5 @20218 has 18 MA's), (Start: 6 @20224 has 1 MA's), (10, 20242), (12, 20272), (13, 20275), (14, 20296), (23, 20374), (26, 20392), (28, 20401), (34, 20551), (39, 20620),

Gene: Tardus\_46 Start: 39515, Stop: 40033, Start Num: 2

Candidate Starts for Tardus\_46:

(Start: 2 @39515 has 9 MA's), (11, 39557), (18, 39644), (26, 39704), (32, 39839), (33, 39860),

Gene: Thimann\_24 Start: 20686, Stop: 21192, Start Num: 5

Candidate Starts for Thimann\_24:

(Start: 5 @20686 has 18 MA's), (Start: 6 @20692 has 1 MA's), (10, 20710), (12, 20740), (13, 20743), (14, 20764), (23, 20842), (26, 20860), (28, 20869), (34, 21019), (39, 21088),

Gene: Twinkle\_24 Start: 22387, Stop: 22893, Start Num: 5

Candidate Starts for Twinkle\_24:

(Start: 5 @22387 has 18 MA's), (Start: 6 @22393 has 1 MA's), (10, 22411), (12, 22441), (13, 22444), (14, 22465), (16, 22483), (23, 22543), (26, 22561), (28, 22570), (34, 22720), (35, 22729), (39, 22789),

Gene: Upyo\_23 Start: 18792, Stop: 19304, Start Num: 4

Candidate Starts for Upyo\_23:

(Start: 4 @18792 has 1 MA's), (9, 18810), (11, 18819), (15, 18882), (20, 18933), (28, 18972), (30, 19026), (37, 19167), (38, 19170),

Gene: Verity\_45 Start: 40925, Stop: 41440, Start Num: 2

Candidate Starts for Verity\_45:

(Start: 2 @40925 has 9 MA's), (11, 40967), (18, 41054), (26, 41114), (31, 41216), (32, 41249), (33, 41270),

Gene: ViaConlectus\_45 Start: 38795, Stop: 39313, Start Num: 2

Candidate Starts for ViaConlectus\_45:

(Start: 2 @38795 has 9 MA's), (11, 38837), (18, 38924), (26, 38984), (32, 39119), (33, 39140),

Gene: WinkNick\_24 Start: 20719, Stop: 21225, Start Num: 5

Candidate Starts for WinkNick\_24:

(Start: 5 @20719 has 18 MA's), (Start: 6 @20725 has 1 MA's), (10, 20743), (12, 20773), (13, 20776), (14, 20797), (23, 20875), (26, 20893), (28, 20902), (34, 21052), (35, 21061), (39, 21121),

Gene: Zipp\_46 Start: 40840, Stop: 41355, Start Num: 2

Candidate Starts for Zipp\_46:

(Start: 2 @40840 has 9 MA's), (11, 40882), (18, 40969), (26, 41029), (31, 41131), (32, 41164), (33, 41185),

Gene: Zitch\_48 Start: 38950, Stop: 39468, Start Num: 2

Candidate Starts for Zitch\_48:

(Start: 2 @38950 has 9 MA's), (11, 38992), (18, 39079), (26, 39139), (32, 39274),