

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 223400 Report

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

Pham number 223400 has 23 members, 4 are drafts.

Phages represented in each track:

- Track 1: CloverMinnie\_55, Wooper\_56, MossRose\_55, Yeshua\_56
- Track 2 : Coldpizza\_52
- Track 3 : AnClar\_52
- Track 4 : Sour 55
- Track 5 : Evaa 51
- Track 6 : Ligma\_53, Fresco\_53, Axumite\_53, Shatter\_53
- Track 7: Mariokart 52, CharlottesWeb 52
- Track 8: NHagos\_54, AksarBAT\_55
- Track 9 : Sisko 51
- Track 10 : CaiB 56
- Track 11: LittleMunchkin 54
- Track 12 : MakoManhole 53
- Track 13 : BiggityBass\_51Track 14 : Yago84\_51
- Track 15: AnarQue 56

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

The start number called the most often in the published annotations is 6, it was called in 8 of the 19 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

 AksarBAT\_55, AnarQue\_56, CaiB\_56, CloverMinnie\_55, LittleMunchkin\_54, MakoManhole\_53, MossRose\_55, NHagos\_54, Wooper\_56, Yeshua\_56,

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

Coldpizza\_52, Evaa\_51,

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

 AnClar\_52, Axumite\_53, BiggityBass\_51, CharlottesWeb\_52, Fresco\_53, Ligma\_53, Mariokart\_52, Shatter\_53, Sisko\_51, Sour\_55, Yago84\_51,

## **Summary by start number:**

#### Start 4:

- Found in 2 of 23 (8.7%) of genes in pham
- Manual Annotations of this start: 1 of 19
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Coldpizza\_52 (DR), Evaa\_51 (DR),

#### Start 5:

- Found in 6 of 23 (26.1%) of genes in pham
- Manual Annotations of this start: 4 of 19
- Called 66.7% of time when present
- Phage (with cluster) where this start called: AnClar\_52 (DR), BiggityBass\_51 (DR), Sisko\_51 (DR), Yago84\_51 (DR),

### Start 6:

- Found in 12 of 23 (52.2%) of genes in pham
- Manual Annotation's of this start: 8 of 19
- Called 83.3% of time when present
- Phage (with cluster) where this start called: AksarBAT\_55 (DR), AnarQue\_56 (DR), CaiB\_56 (DR), CloverMinnie\_55 (DR), LittleMunchkin\_54 (DR), MakoManhole\_53 (DR), MossRose\_55 (DR), NHagos\_54 (DR), Wooper\_56 (DR), Yeshua\_56 (DR),

#### Start 7:

- Found in 1 of 23 (4.3%) of genes in pham
- Manual Annotations of this start: 1 of 19
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Sour\_55 (DR),

#### Start 8:

- Found in 6 of 23 (26.1%) of genes in pham
- Manual Annotations of this start: 5 of 19
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Axumite\_53 (DR), CharlottesWeb\_52 (DR), Fresco\_53 (DR), Ligma\_53 (DR), Mariokart\_52 (DR), Shatter\_53 (DR),

# Summary by clusters:

There is one cluster represented in this pham: DR

Info for manual annotations of cluster DR:

- •Start number 4 was manually annotated 1 time for cluster DR.
- •Start number 5 was manually annotated 4 times for cluster DR.
- •Start number 6 was manually annotated 8 times for cluster DR.
- •Start number 7 was manually annotated 1 time for cluster DR.
- •Start number 8 was manually annotated 5 times for cluster DR.

#### Gene Information:

Gene: AksarBAT 55 Start: 48138, Stop: 47536, Start Num: 6

Candidate Starts for AksarBAT 55:

(Start: 6 @48138 has 8 MA's), (20, 47955), (28, 47877), (35, 47838), (41, 47784), (42, 47778), (58, 47589),

Gene: AnClar\_52 Start: 48749, Stop: 48273, Start Num: 5

Candidate Starts for AnClar 52:

(1, 48956), (Start: 5 @48749 has 4 MA's), (15, 48638), (17, 48611), (27, 48500), (47, 48374), (54, 48335),

Gene: AnarQue\_56 Start: 48966, Stop: 48397, Start Num: 6

Candidate Starts for AnarQue 56:

(Start: 6 @ 48966 has 8 MA's), (13, 48885), (23, 48747), (30, 48687), (40, 48615), (41, 48612), (50, 48564), (52, 48558), (56, 48498), (58, 48453),

Gene: Axumite 53 Start: 46714, Stop: 46265, Start Num: 8

Candidate Starts for Axumite 53:

(Start: 8 @ 46714 has 5 MA's), (9, 46672), (15, 46612), (46, 46360), (49, 46348),

Gene: BiggityBass\_51 Start: 48087, Stop: 47641, Start Num: 5

Candidate Starts for BiggityBass\_51:

(1, 48300), (Start: 5 @48087 has 4 MA's), (11, 48018), (15, 47976), (18, 47934), (25, 47877), (27, 47862), (55, 47682),

Gene: CaiB\_56 Start: 49517, Stop: 48930, Start Num: 6

Candidate Starts for CaiB 56:

(Start: 6 @ 49517 has 8 MA's), (13, 49436), (19, 49343), (23, 49298), (42, 49157), (44, 49154), (56, 49031), (59, 48971),

Gene: CharlottesWeb\_52 Start: 46101, Stop: 45649, Start Num: 8

Candidate Starts for CharlottesWeb\_52:

(3, 46194), (Start: 8 @ 46101 has 5 MA's), (11, 46041), (14, 46005), (24, 45915), (26, 45894), (46, 45750), (49, 45738),

Gene: CloverMinnie\_55 Start: 48552, Stop: 47974, Start Num: 6

Candidate Starts for CloverMinnie\_55:

(Start: 6 @48552 has 8 MA's), (13, 48471), (23, 48333), (40, 48201), (41, 48198), (50, 48141), (52, 48135), (56, 48075), (58, 48030),

Gene: Coldpizza\_52 Start: 49032, Stop: 48547, Start Num: 4

Candidate Starts for Coldpizza\_52:

(2, 49080), (Start: 4 @49032 has 1 MA's), (Start: 5 @49005 has 4 MA's), (Start: 6 @49002 has 8 MA's), (15, 48894), (33, 48747), (43, 48681), (54, 48597),

Gene: Evaa\_51 Start: 46670, Stop: 46056, Start Num: 4

Candidate Starts for Evaa 51:

(2, 46718), (Start: 4 @46670 has 1 MA's), (Start: 5 @46625 has 4 MA's), (Start: 6 @46622 has 8 MA's), (12, 46547), (16, 46493), (18, 46460), (21, 46433), (31, 46349), (32, 46346), (34, 46334), (38, 46310), (48, 46232), (51, 46223), (57, 46133),

Gene: Fresco\_53 Start: 46714, Stop: 46265, Start Num: 8

Candidate Starts for Fresco\_53:

(Start: 8 @ 46714 has 5 MA's), (9, 46672), (15, 46612), (46, 46360), (49, 46348),

Gene: Ligma\_53 Start: 46714, Stop: 46265, Start Num: 8

Candidate Starts for Ligma 53:

(Start: 8 @ 46714 has 5 MA's), (9, 46672), (15, 46612), (46, 46360), (49, 46348),

Gene: LittleMunchkin\_54 Start: 49386, Stop: 48961, Start Num: 6

Candidate Starts for LittleMunchkin\_54:

(Start: 6 @49386 has 8 MA's), (9, 49338), (10, 49323), (15, 49278), (22, 49218), (26, 49185), (27, 49179), (36, 49131), (37, 49128), (39, 49125),

Gene: MakoManhole\_53 Start: 48044, Stop: 47469, Start Num: 6

Candidate Starts for MakoManhole 53:

(Start: 6 @ 48044 has 8 MA's), (13, 47963), (23, 47825), (40, 47693), (41, 47690), (50, 47636), (52, 47630), (56, 47570), (59, 47510),

Gene: Mariokart 52 Start: 46387, Stop: 45935, Start Num: 8

Candidate Starts for Mariokart 52:

(3, 46480), (Start: 8 @46387 has 5 MA's), (11, 46327), (14, 46291), (24, 46201), (26, 46180), (46, 46036), (49, 46024),

Gene: MossRose\_55 Start: 48597, Stop: 48031, Start Num: 6

Candidate Starts for MossRose 55:

(Start: 6 @ 48597 has 8 MA's), (13, 48516), (23, 48378), (40, 48246), (41, 48243), (50, 48198), (52, 48192), (56, 48132), (58, 48087),

Gene: NHagos\_54 Start: 47410, Stop: 46808, Start Num: 6

Candidate Starts for NHagos\_54:

(Start: 6 @ 47410 has 8 MA's), (20, 47227), (28, 47149), (35, 47110), (41, 47056), (42, 47050), (58, 46861),

Gene: Shatter\_53 Start: 46714, Stop: 46265, Start Num: 8

Candidate Starts for Shatter 53:

(Start: 8 @46714 has 5 MA's), (9, 46672), (15, 46612), (46, 46360), (49, 46348),

Gene: Sisko\_51 Start: 46752, Stop: 46276, Start Num: 5

Candidate Starts for Sisko 51:

(1, 46959), (Start: 5 @46752 has 4 MA's), (15, 46641), (17, 46614), (27, 46503), (47, 46377), (54, 46338),

Gene: Sour\_55 Start: 49917, Stop: 49447, Start Num: 7

Candidate Starts for Sour\_55:

(Start: 7 @ 49917 has 1 MA's), (9, 49872), (15, 49812), (22, 49722), (26, 49689), (27, 49683), (29, 49671), (45, 49563), (46, 49551), (53, 49524),

Gene: Wooper 56 Start: 48938, Stop: 48363, Start Num: 6

Candidate Starts for Wooper\_56:

(Start: 6 @ 48938 has 8 MA's), (13, 48857), (23, 48719), (40, 48587), (41, 48584), (50, 48530), (52, 48524), (56, 48464), (58, 48419),

Gene: Yago84\_51 Start: 46827, Stop: 46351, Start Num: 5

Candidate Starts for Yago84\_51:

(Start: 5 @ 46827 has 4 MA's), (15, 46716), (17, 46689), (27, 46578), (47, 46452), (54, 46413),

Gene: Yeshua\_56 Start: 48915, Stop: 48340, Start Num: 6

Candidate Starts for Yeshua 56:

(Start: 6 @ 48915 has 8 MA's), (13, 48834), (23, 48696), (40, 48564), (41, 48561), (50, 48507), (52, 48501), (56, 48441), (58, 48396),