

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 225096 Report

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

Pham number 225096 has 10 members, 5 are drafts.

Phages represented in each track:

• Track 1 : Weirdo19 46

• Track 2 : GMA5\_19

• Track 3 : Kiko\_41

Track 4 : Dmitri\_40

Track 5: TaronosaurasRx 42

• Track 6 : Opie\_43

Track 7 : Doggs\_37

• Track 8 : Moonflower 39

Track 9 : Nyceirae\_36

Track 10 : Faiyaz\_54

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

The start number called the most often in the published annotations is 16, it was called in 1 of the 5 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

Nyceirae\_36,

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

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

• Dmitri\_40, Doggs\_37, Faiyaz\_54, GMA5\_19, Kiko\_41, Moonflower\_39, Opie\_43, TaronosaurasRx\_42, Weirdo19\_46,

## Summary by start number:

### Start 9:

- Found in 5 of 10 (50.0%) of genes in pham
- Manual Annotations of this start: 1 of 5
- Called 20.0% of time when present
- Phage (with cluster) where this start called: Doggs\_37 (DB),

### Start 10:

- Found in 1 of 10 (10.0%) of genes in pham
- Manual Annotations of this start: 1 of 5
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Kiko\_41 (DB),

#### Start 11:

- Found in 8 of 10 (80.0%) of genes in pham
- Manual Annotations of this start: 1 of 5
- Called 12.5% of time when present
- Phage (with cluster) where this start called: Opie\_43 (DB),

#### Start 16:

- Found in 1 of 10 (10.0%) of genes in pham
- Manual Annotations of this start: 1 of 5
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Nyceirae\_36 (DT),

## Start 18:

- Found in 5 of 10 (50.0%) of genes in pham
- Manual Annotations of this start: 1 of 5
- Called 60.0% of time when present
- Phage (with cluster) where this start called: Dmitri\_40 (DB), Moonflower\_39 (DB), TaronosaurasRx\_42 (DB),

#### Start 19:

- Found in 4 of 10 ( 40.0% ) of genes in pham
- No Manual Annotations of this start.
- Called 75.0% of time when present
- Phage (with cluster) where this start called: Faiyaz\_54 (Y), GMA5\_19 (CW2), Weirdo19\_46 (AH),

## Summary by clusters:

There are 5 clusters represented in this pham: Y, AH, DT, CW2, DB,

Info for manual annotations of cluster DB:

- •Start number 9 was manually annotated 1 time for cluster DB.
- •Start number 10 was manually annotated 1 time for cluster DB.
- •Start number 11 was manually annotated 1 time for cluster DB.
- •Start number 18 was manually annotated 1 time for cluster DB.

Info for manual annotations of cluster DT:

Start number 16 was manually annotated 1 time for cluster DT.

#### Gene Information:

Gene: Dmitri\_40 Start: 33369, Stop: 33049, Start Num: 18

Candidate Starts for Dmitri 40:

(Start: 9 @33429 has 1 MA's), (Start: 11 @33411 has 1 MA's), (Start: 18 @33369 has 1 MA's), (33, 33210), (34, 33204), (40, 33072), (42, 33063),

Gene: Doggs\_37 Start: 32568, Stop: 32188, Start Num: 9

Candidate Starts for Doggs\_37:

(Start: 9 @32568 has 1 MA's), (Start: 11 @32550 has 1 MA's), (Start: 18 @32508 has 1 MA's), (26, 32421), (30, 32376), (40, 32211), (42, 32202),

Gene: Faiyaz\_54 Start: 41111, Stop: 40785, Start Num: 19

Candidate Starts for Faiyaz 54:

(8, 41186), (Start: 11 @41165 has 1 MA's), (19, 41111), (23, 41057), (27, 41015), (32, 40976), (33, 40964), (36, 40889), (38, 40835), (41, 40829),

Gene: GMA5\_19 Start: 14633, Stop: 14346, Start Num: 19

Candidate Starts for GMA5\_19:

(12, 14684), (13, 14672), (17, 14651), (19, 14633), (22, 14591), (24, 14573), (25, 14558), (33, 14486), (37, 14381), (40, 14369),

Gene: Kiko\_41 Start: 32143, Stop: 31775, Start Num: 10

Candidate Starts for Kiko 41:

(6, 32188), (Start: 10 @32143 has 1 MA's), (14, 32113), (15, 32104), (20, 32065), (21, 32056), (28, 31969), (29, 31966), (34, 31930),

Gene: Moonflower\_39 Start: 33232, Stop: 32912, Start Num: 18

Candidate Starts for Moonflower\_39:

(Start: 9 @33292 has 1 MA's), (Start: 11 @33274 has 1 MA's), (Start: 18 @33232 has 1 MA's), (33, 33073), (34, 33067), (39, 32938), (40, 32935), (42, 32926),

Gene: Nyceirae\_36 Start: 30000, Stop: 29677, Start Num: 16

Candidate Starts for Nyceirae\_36:

(Start: 11 @30033 has 1 MA's), (Start: 16 @30000 has 1 MA's), (19, 29979), (24, 29919), (25, 29904), (31, 29856), (32, 29844), (40, 29700),

Gene: Opie\_43 Start: 33208, Stop: 32843, Start Num: 11

Candidate Starts for Opie 43:

(Start: 9 @ 33226 has 1 MA's), (Start: 11 @ 33208 has 1 MA's), (Start: 18 @ 33166 has 1 MA's), (26, 33079), (30, 33034), (33, 33007), (34, 33001), (42, 32857),

Gene: TaronosaurasRx\_42 Start: 31568, Stop: 31248, Start Num: 18

Candidate Starts for TaronosaurasRx\_42:

(Start: 9 @31628 has 1 MA's), (Start: 11 @31610 has 1 MA's), (Start: 18 @31568 has 1 MA's), (32, 31421), (34, 31403), (42, 31262),

Gene: Weirdo19 46 Start: 34933, Stop: 34580, Start Num: 19

Candidate Starts for Weirdo19 46:

(1, 35212), (2, 35206), (3, 35134), (4, 35116), (5, 35044), (7, 35023), (Start: 11 @34987 has 1 MA's), (19, 34933), (23, 34879), (32, 34798), (33, 34786), (34, 34780), (35, 34750), (36, 34711), (43, 34639), (44, 34594),