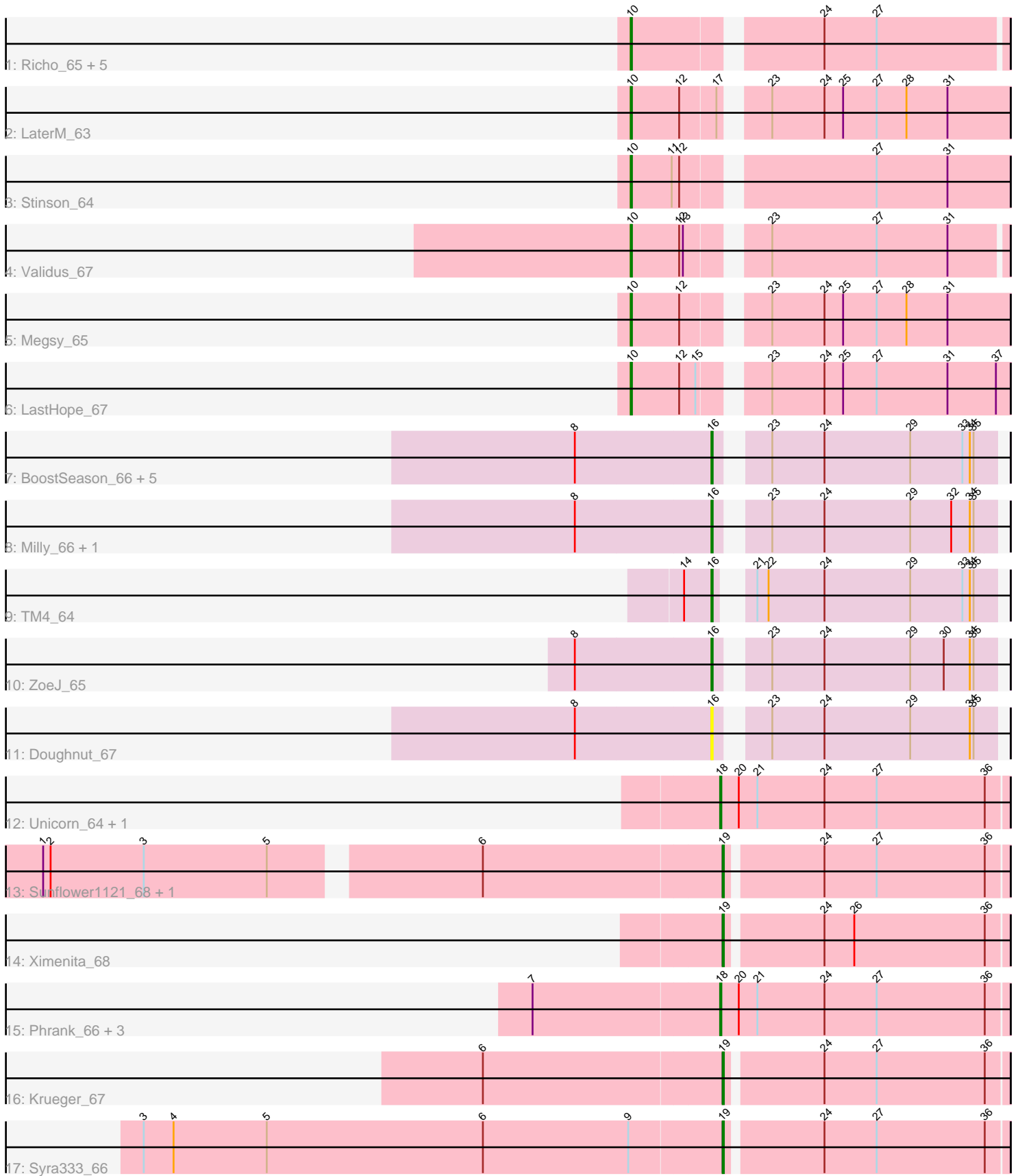


# Pham 224773



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 224773 Report

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

Pham number 224773 has 33 members, 4 are drafts.

Phages represented in each track:

- Track 1 : Richo\_65, Niklas\_65, McMater\_65, Shaobing\_65, Dartin\_65, Peanam\_65
- Track 2 : LaterM\_63
- Track 3 : Stinson\_64
- Track 4 : Validus\_67
- Track 5 : Megsy\_65
- Track 6 : LastHope\_67
- Track 7 : BoostSeason\_66, Marcoliusprime\_66, DismalStressor\_66, DismalFunk\_66, Findley\_66, Strobilo\_67
- Track 8 : Milly\_66, Mufasa\_66
- Track 9 : TM4\_64
- Track 10 : ZoeJ\_65
- Track 11 : Doughnut\_67
- Track 12 : Unicorn\_64, PhelpsODU\_64
- Track 13 : Sunflower1121\_68, Shadow1\_67
- Track 14 : Ximenita\_68
- Track 15 : Phrank\_66, Tierra\_66, Cain\_66, Bryler\_66
- Track 16 : Krueger\_67
- Track 17 : Syra333\_66

### ***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 10 of the 29 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- BoostSeason\_66, DismalFunk\_66, DismalStressor\_66, Doughnut\_67, Findley\_66, Marcoliusprime\_66, Milly\_66, Mufasa\_66, Strobilo\_67, TM4\_64, ZoeJ\_65,

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

- 

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

- Bryler\_66, Cain\_66, Dartin\_65, Krueger\_67, LastHope\_67, LaterM\_63, McMater\_65, Megsy\_65, Niklas\_65, Peanam\_65, PhelpsODU\_64, Phrank\_66, Richo\_65,

Shadow1\_67, Shaobing\_65, Stinson\_64, Sunflower1121\_68, Syra333\_66, Tierra\_66, Unicorn\_64, Validus\_67, Ximenita\_68,

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

Start 10:

- Found in 11 of 33 ( 33.3% ) of genes in pham
- Manual Annotations of this start: 8 of 29
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Dartin\_65 (K1), LastHope\_67 (K1), LaterM\_63 (K1), McMater\_65 (K1), Megsy\_65 (K1), Niklas\_65 (K1), Peanam\_65 (K1), Richo\_65 (K1), Shaobing\_65 (K1), Stinson\_64 (K1), Validus\_67 (K1),

Start 16:

- Found in 11 of 33 ( 33.3% ) of genes in pham
- Manual Annotations of this start: 10 of 29
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BoostSeason\_66 (K2), DismalFunk\_66 (K2), DismalStressor\_66 (K2), Doughnut\_67 (K2), Findley\_66 (K2), Marcoliusprime\_66 (K2), Milly\_66 (K2), Mufasa\_66 (K2), Strobilo\_67 (K2), TM4\_64 (K2), ZoeJ\_65 (K2),

Start 18:

- Found in 6 of 33 ( 18.2% ) of genes in pham
- Manual Annotations of this start: 6 of 29
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Bryler\_66 (K6), Cain\_66 (K6), PhelpsODU\_64 (K6), Phrank\_66 (K6), Tierra\_66 (K6), Unicorn\_64 (K6),

Start 19:

- Found in 5 of 33 ( 15.2% ) of genes in pham
- Manual Annotations of this start: 5 of 29
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Krueger\_67 (K6), Shadow1\_67 (K6), Sunflower1121\_68 (K6), Syra333\_66 (K6), Ximenita\_68 (K6),

### **Summary by clusters:**

There are 3 clusters represented in this pham: K2, K1, K6,

Info for manual annotations of cluster K1:

- Start number 10 was manually annotated 8 times for cluster K1.

Info for manual annotations of cluster K2:

- Start number 16 was manually annotated 10 times for cluster K2.

Info for manual annotations of cluster K6:

- Start number 18 was manually annotated 6 times for cluster K6.
- Start number 19 was manually annotated 5 times for cluster K6.

### **Gene Information:**

Gene: BoostSeason\_66 Start: 44610, Stop: 44819, Start Num: 16  
Candidate Starts for BoostSeason\_66:  
(8, 44502), (Start: 16 @44610 has 10 MA's), (23, 44640), (24, 44682), (29, 44751), (33, 44793), (34, 44799), (35, 44802),

Gene: Bryler\_66 Start: 42196, Stop: 42426, Start Num: 18  
Candidate Starts for Bryler\_66:  
(7, 42049), (Start: 18 @42196 has 6 MA's), (20, 42211), (21, 42226), (24, 42280), (27, 42322), (36, 42409),

Gene: Cain\_66 Start: 42184, Stop: 42414, Start Num: 18  
Candidate Starts for Cain\_66:  
(7, 42037), (Start: 18 @42184 has 6 MA's), (20, 42199), (21, 42214), (24, 42268), (27, 42310), (36, 42397),

Gene: Dartin\_65 Start: 42809, Stop: 43087, Start Num: 10  
Candidate Starts for Dartin\_65:  
(Start: 10 @42809 has 8 MA's), (24, 42944), (27, 42986),

Gene: DismalFunk\_66 Start: 45035, Stop: 45244, Start Num: 16  
Candidate Starts for DismalFunk\_66:  
(8, 44927), (Start: 16 @45035 has 10 MA's), (23, 45065), (24, 45107), (29, 45176), (33, 45218), (34, 45224), (35, 45227),

Gene: DismalStressor\_66 Start: 45035, Stop: 45244, Start Num: 16  
Candidate Starts for DismalStressor\_66:  
(8, 44927), (Start: 16 @45035 has 10 MA's), (23, 45065), (24, 45107), (29, 45176), (33, 45218), (34, 45224), (35, 45227),

Gene: Doughnut\_67 Start: 44652, Stop: 44861, Start Num: 16  
Candidate Starts for Doughnut\_67:  
(8, 44544), (Start: 16 @44652 has 10 MA's), (23, 44682), (24, 44724), (29, 44793), (34, 44841), (35, 44844),

Gene: Findley\_66 Start: 45028, Stop: 45237, Start Num: 16  
Candidate Starts for Findley\_66:  
(8, 44920), (Start: 16 @45028 has 10 MA's), (23, 45058), (24, 45100), (29, 45169), (33, 45211), (34, 45217), (35, 45220),

Gene: Krueger\_67 Start: 42484, Stop: 42702, Start Num: 19  
Candidate Starts for Krueger\_67:  
(6, 42295), (Start: 19 @42484 has 5 MA's), (24, 42556), (27, 42598), (36, 42685),

Gene: LastHope\_67 Start: 41744, Stop: 42028, Start Num: 10  
Candidate Starts for LastHope\_67:  
(Start: 10 @41744 has 8 MA's), (12, 41783), (15, 41795), (23, 41837), (24, 41879), (25, 41894), (27, 41921), (31, 41978), (37, 42017),

Gene: LaterM\_63 Start: 43006, Stop: 43290, Start Num: 10  
Candidate Starts for LaterM\_63:  
(Start: 10 @43006 has 8 MA's), (12, 43045), (17, 43072), (23, 43099), (24, 43141), (25, 43156), (27, 43183), (28, 43207), (31, 43240),

Gene: Marcoliusprime\_66 Start: 45035, Stop: 45244, Start Num: 16  
Candidate Starts for Marcoliusprime\_66:  
(8, 44927), (Start: 16 @45035 has 10 MA's), (23, 45065), (24, 45107), (29, 45176), (33, 45218), (34, 45224), (35, 45227),

Gene: McMater\_65 Start: 42809, Stop: 43087, Start Num: 10  
Candidate Starts for McMater\_65:  
(Start: 10 @42809 has 8 MA's), (24, 42944), (27, 42986),

Gene: Megsy\_65 Start: 42722, Stop: 43006, Start Num: 10  
Candidate Starts for Megsy\_65:  
(Start: 10 @42722 has 8 MA's), (12, 42761), (23, 42815), (24, 42857), (25, 42872), (27, 42899), (28, 42923), (31, 42956),

Gene: Milly\_66 Start: 45008, Stop: 45217, Start Num: 16  
Candidate Starts for Milly\_66:  
(8, 44900), (Start: 16 @45008 has 10 MA's), (23, 45038), (24, 45080), (29, 45149), (32, 45182), (34, 45197), (35, 45200),

Gene: Mufasa\_66 Start: 44595, Stop: 44804, Start Num: 16  
Candidate Starts for Mufasa\_66:  
(8, 44487), (Start: 16 @44595 has 10 MA's), (23, 44625), (24, 44667), (29, 44736), (32, 44769), (34, 44784), (35, 44787),

Gene: Niklas\_65 Start: 42870, Stop: 43148, Start Num: 10  
Candidate Starts for Niklas\_65:  
(Start: 10 @42870 has 8 MA's), (24, 43005), (27, 43047),

Gene: Peanam\_65 Start: 42828, Stop: 43106, Start Num: 10  
Candidate Starts for Peanam\_65:  
(Start: 10 @42828 has 8 MA's), (24, 42963), (27, 43005),

Gene: PhelpsODU\_64 Start: 42110, Stop: 42340, Start Num: 18  
Candidate Starts for PhelpsODU\_64:  
(Start: 18 @42110 has 6 MA's), (20, 42125), (21, 42140), (24, 42194), (27, 42236), (36, 42323),

Gene: Phrank\_66 Start: 42174, Stop: 42404, Start Num: 18  
Candidate Starts for Phrank\_66:  
(7, 42027), (Start: 18 @42174 has 6 MA's), (20, 42189), (21, 42204), (24, 42258), (27, 42300), (36, 42387),

Gene: Richo\_65 Start: 42809, Stop: 43087, Start Num: 10  
Candidate Starts for Richo\_65:  
(Start: 10 @42809 has 8 MA's), (24, 42944), (27, 42986),

Gene: Shadow1\_67 Start: 42637, Stop: 42855, Start Num: 19  
Candidate Starts for Shadow1\_67:  
(1, 42115), (2, 42121), (3, 42196), (5, 42295), (6, 42448), (Start: 19 @42637 has 5 MA's), (24, 42709), (27, 42751), (36, 42838),

Gene: Shaobing\_65 Start: 42846, Stop: 43124, Start Num: 10  
Candidate Starts for Shaobing\_65:  
(Start: 10 @42846 has 8 MA's), (24, 42981), (27, 43023),

Gene: Stinson\_64 Start: 42939, Stop: 43223, Start Num: 10

Candidate Starts for Stinson\_64:

(Start: 10 @42939 has 8 MA's), (11, 42972), (12, 42978), (27, 43116), (31, 43173),

Gene: Strobilo\_67 Start: 45010, Stop: 45219, Start Num: 16

Candidate Starts for Strobilo\_67:

(8, 44902), (Start: 16 @45010 has 10 MA's), (23, 45040), (24, 45082), (29, 45151), (33, 45193), (34, 45199), (35, 45202),

Gene: Sunflower1121\_68 Start: 42783, Stop: 43001, Start Num: 19

Candidate Starts for Sunflower1121\_68:

(1, 42261), (2, 42267), (3, 42342), (5, 42441), (6, 42594), (Start: 19 @42783 has 5 MA's), (24, 42855), (27, 42897), (36, 42984),

Gene: Syra333\_66 Start: 42496, Stop: 42714, Start Num: 19

Candidate Starts for Syra333\_66:

(3, 42034), (4, 42058), (5, 42133), (6, 42307), (9, 42424), (Start: 19 @42496 has 5 MA's), (24, 42568), (27, 42610), (36, 42697),

Gene: TM4\_64 Start: 39676, Stop: 39882, Start Num: 16

Candidate Starts for TM4\_64:

(14, 39655), (Start: 16 @39676 has 10 MA's), (21, 39691), (22, 39700), (24, 39745), (29, 39814), (33, 39856), (34, 39862), (35, 39865),

Gene: Tierra\_66 Start: 42985, Stop: 43215, Start Num: 18

Candidate Starts for Tierra\_66:

(7, 42838), (Start: 18 @42985 has 6 MA's), (20, 43000), (21, 43015), (24, 43069), (27, 43111), (36, 43198),

Gene: Unicorn\_64 Start: 42110, Stop: 42340, Start Num: 18

Candidate Starts for Unicorn\_64:

(Start: 18 @42110 has 6 MA's), (20, 42125), (21, 42140), (24, 42194), (27, 42236), (36, 42323),

Gene: Validus\_67 Start: 43191, Stop: 43469, Start Num: 10

Candidate Starts for Validus\_67:

(Start: 10 @43191 has 8 MA's), (12, 43230), (13, 43233), (23, 43284), (27, 43368), (31, 43425),

Gene: Ximenita\_68 Start: 42822, Stop: 43040, Start Num: 19

Candidate Starts for Ximenita\_68:

(Start: 19 @42822 has 5 MA's), (24, 42894), (26, 42918), (36, 43023),

Gene: ZoeJ\_65 Start: 44414, Stop: 44623, Start Num: 16

Candidate Starts for ZoeJ\_65:

(8, 44306), (Start: 16 @44414 has 10 MA's), (23, 44444), (24, 44486), (29, 44555), (30, 44582), (34, 44603), (35, 44606),