



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 305153 Report

This analysis was run 06/08/26 on database version 649.

Pham number 305153 has 38 members, 3 are drafts.

Phages represented in each track:

- Track 1 : Ageofdapage\_85
- Track 2 : Stinson\_82
- Track 3 : LaterM\_81
- Track 4 : Pokerus\_81
- Track 5 : Geraldini\_83
- Track 6 : Devera\_87, Dole\_84, Illumine\_85
- Track 7 : Pisa1\_81, Pisa4\_75
- Track 8 : QuincyRose\_79, Ganymede\_81
- Track 9 : Jayhawk\_83, Rapunzel97\_83, BarrelRoll\_81, Mynx\_82
- Track 10 : YoureAdopted\_80
- Track 11 : Apocalypse\_83
- Track 12 : Yunkel11\_86
- Track 13 : CrimD\_81
- Track 14 : Megsy\_85
- Track 15 : BGiluviae\_80
- Track 16 : Bern\_83
- Track 17 : LindNT\_79
- Track 18 : CheetoDust\_81
- Track 19 : Kratio\_76, Agent47\_73
- Track 20 : Gengar\_74
- Track 21 : OkiRoe\_75
- Track 22 : Thyatira\_76, Waterfoul\_75
- Track 23 : BananenDer11\_73, Collard\_71, DoubleChamp\_70
- Track 24 : InvictusManeo\_71
- Track 25 : LilDirt\_72, ViviJ\_79
- Track 26 : Yuna\_83

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

The start number called the most often in the published annotations is 3, it was called in 33 of the 35 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Agent47\_73, Ageofdapage\_85, Apocalypse\_83, BGlluviae\_80, BananenDer11\_73, BarrelRoll\_81, Bern\_83, CheetoDust\_81, Collard\_71, CrimD\_81, Devera\_87, Dole\_84, DoubleChamp\_70, Ganymede\_81, Gengar\_74, Geraldini\_83, Illumine\_85, Jayhawk\_83, Kratio\_76, LaterM\_81, LiIDirt\_72, LindNT\_79, Megsy\_85, Mynx\_82, OkiRoe\_75, Pisa1\_81, Pisa4\_75, Pokerus\_81, QuincyRose\_79, Rapunzel97\_83, Stinson\_82, Thyatira\_76, ViviJ\_79, Waterfoul\_75, YoureAdopted\_80, Yunkel11\_86,

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

- InvictusManeo\_71,

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

- Yuna\_83,

### Summary by start number:

Start 2:

- Found in 3 of 38 ( 7.9% ) of genes in pham
- Manual Annotations of this start: 1 of 35
- Called 33.3% of time when present
- Phage (with cluster) where this start called: InvictusManeo\_71 (K5),

Start 3:

- Found in 37 of 38 ( 97.4% ) of genes in pham
- Manual Annotations of this start: 33 of 35
- Called 97.3% of time when present
- Phage (with cluster) where this start called: Agent47\_73 (K5), Ageofdapage\_85 (K1), Apocalypse\_83 (K1), BGlluviae\_80 (K1), BananenDer11\_73 (K5), BarrelRoll\_81 (K1), Bern\_83 (K1), CheetoDust\_81 (K1), Collard\_71 (K5), CrimD\_81 (K1), Devera\_87 (K1), Dole\_84 (K1), DoubleChamp\_70 (K5), Ganymede\_81 (K1), Gengar\_74 (K5), Geraldini\_83 (K1), Illumine\_85 (K1), Jayhawk\_83 (K1), Kratio\_76 (K5), LaterM\_81 (K1), LiIDirt\_72 (K5), LindNT\_79 (K1), Megsy\_85 (K1), Mynx\_82 (K1), OkiRoe\_75 (K5), Pisa1\_81 (K1), Pisa4\_75 (K1), Pokerus\_81 (K1), QuincyRose\_79 (K1), Rapunzel97\_83 (K1), Stinson\_82 (K1), Thyatira\_76 (K5), ViviJ\_79 (K5), Waterfoul\_75 (K5), YoureAdopted\_80 (K1), Yunkel11\_86 (K1),

Start 6:

- Found in 1 of 38 ( 2.6% ) of genes in pham
- Manual Annotations of this start: 1 of 35
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Yuna\_83 (K6),

### Summary by clusters:

There are 3 clusters represented in this pham: K1, K6, K5,

Info for manual annotations of cluster K1:

- Start number 3 was manually annotated 23 times for cluster K1.

Info for manual annotations of cluster K5:

- Start number 2 was manually annotated 1 time for cluster K5.
- Start number 3 was manually annotated 10 times for cluster K5.

Info for manual annotations of cluster K6:

- Start number 6 was manually annotated 1 time for cluster K6.

### **Gene Information:**

Gene: Agent47\_73 Start: 49176, Stop: 49535, Start Num: 3

Candidate Starts for Agent47\_73:

(Start: 2 @49173 has 1 MA's), (Start: 3 @49176 has 33 MA's), (5, 49221), (12, 49344), (13, 49347), (19, 49431), (23, 49485), (27, 49527),

Gene: Ageofdapage\_85 Start: 53683, Stop: 54159, Start Num: 3

Candidate Starts for Ageofdapage\_85:

(Start: 3 @53683 has 33 MA's), (4, 53695), (7, 53746), (19, 53926), (21, 53953), (22, 53974), (24, 54004), (27, 54028),

Gene: Apocalypse\_83 Start: 53113, Stop: 53589, Start Num: 3

Candidate Starts for Apocalypse\_83:

(Start: 3 @53113 has 33 MA's), (7, 53176), (15, 53314), (19, 53356), (22, 53404), (27, 53458),

Gene: BGIlluviae\_80 Start: 52433, Stop: 52909, Start Num: 3

Candidate Starts for BGIlluviae\_80:

(Start: 3 @52433 has 33 MA's), (7, 52496), (11, 52580), (15, 52634), (19, 52676), (21, 52703), (22, 52724), (27, 52778),

Gene: BananenDer11\_73 Start: 49137, Stop: 49496, Start Num: 3

Candidate Starts for BananenDer11\_73:

(Start: 3 @49137 has 33 MA's), (5, 49182), (12, 49305), (13, 49308), (19, 49392), (23, 49446), (27, 49488),

Gene: BarrelRoll\_81 Start: 52830, Stop: 53306, Start Num: 3

Candidate Starts for BarrelRoll\_81:

(Start: 3 @52830 has 33 MA's), (7, 52893), (19, 53073), (21, 53100), (22, 53121), (27, 53175),

Gene: Bern\_83 Start: 51564, Stop: 51989, Start Num: 3

Candidate Starts for Bern\_83:

(Start: 3 @51564 has 33 MA's), (4, 51576), (7, 51627), (16, 51783), (19, 51807), (21, 51834), (27, 51909), (34, 51969),

Gene: CheetoDust\_81 Start: 52251, Stop: 52727, Start Num: 3

Candidate Starts for CheetoDust\_81:

(1, 52212), (Start: 3 @52251 has 33 MA's), (7, 52314), (15, 52452), (19, 52494), (21, 52521), (22, 52542), (24, 52572), (27, 52596),

Gene: Collard\_71 Start: 49137, Stop: 49496, Start Num: 3

Candidate Starts for Collard\_71:

(Start: 3 @49137 has 33 MA's), (5, 49182), (12, 49305), (13, 49308), (19, 49392), (23, 49446), (27, 49488),

Gene: CrimD\_81 Start: 52883, Stop: 53359, Start Num: 3

Candidate Starts for CrimD\_81:

(Start: 3 @52883 has 33 MA's), (7, 52946), (19, 53126), (27, 53228),

Gene: Devera\_87 Start: 53666, Stop: 54112, Start Num: 3

Candidate Starts for Devera\_87:

(Start: 3 @53666 has 33 MA's), (4, 53678), (7, 53729), (19, 53909), (22, 53957), (24, 53987), (27, 54011), (30, 54041),

Gene: Dole\_84 Start: 53669, Stop: 54115, Start Num: 3

Candidate Starts for Dole\_84:

(Start: 3 @53669 has 33 MA's), (4, 53681), (7, 53732), (19, 53912), (22, 53960), (24, 53990), (27, 54014), (30, 54044),

Gene: DoubleChamp\_70 Start: 49137, Stop: 49496, Start Num: 3

Candidate Starts for DoubleChamp\_70:

(Start: 3 @49137 has 33 MA's), (5, 49182), (12, 49305), (13, 49308), (19, 49392), (23, 49446), (27, 49488),

Gene: Ganymede\_81 Start: 52871, Stop: 53347, Start Num: 3

Candidate Starts for Ganymede\_81:

(Start: 3 @52871 has 33 MA's), (4, 52883), (7, 52934), (19, 53114), (21, 53141), (22, 53162), (24, 53192), (27, 53216),

Gene: Gengar\_74 Start: 51188, Stop: 51751, Start Num: 3

Candidate Starts for Gengar\_74:

(Start: 3 @51188 has 33 MA's), (5, 51233), (20, 51464), (22, 51494), (23, 51497), (32, 51596), (33, 51599),

Gene: Geraldini\_83 Start: 52891, Stop: 53367, Start Num: 3

Candidate Starts for Geraldini\_83:

(Start: 3 @52891 has 33 MA's), (7, 52954), (19, 53134), (21, 53161), (22, 53182), (27, 53236),

Gene: Illumine\_85 Start: 53668, Stop: 54114, Start Num: 3

Candidate Starts for Illumine\_85:

(Start: 3 @53668 has 33 MA's), (4, 53680), (7, 53731), (19, 53911), (22, 53959), (24, 53989), (27, 54013), (30, 54043),

Gene: InvictusManeo\_71 Start: 49177, Stop: 49539, Start Num: 2

Candidate Starts for InvictusManeo\_71:

(Start: 2 @49177 has 1 MA's), (Start: 3 @49180 has 33 MA's), (5, 49225), (12, 49348), (13, 49351), (19, 49435), (23, 49489), (27, 49531),

Gene: Jayhawk\_83 Start: 52890, Stop: 53366, Start Num: 3

Candidate Starts for Jayhawk\_83:

(Start: 3 @52890 has 33 MA's), (7, 52953), (19, 53133), (21, 53160), (22, 53181), (27, 53235),

Gene: Kratio\_76 Start: 50738, Stop: 51097, Start Num: 3

Candidate Starts for Kratio\_76:

(Start: 2 @50735 has 1 MA's), (Start: 3 @50738 has 33 MA's), (5, 50783), (12, 50906), (13, 50909), (19, 50993), (23, 51047), (27, 51089),

Gene: LaterM\_81 Start: 53110, Stop: 53586, Start Num: 3

Candidate Starts for LaterM\_81:

(Start: 3 @53110 has 33 MA's), (4, 53122), (7, 53173), (19, 53353), (21, 53380), (22, 53401), (24, 53431), (27, 53455), (35, 53539),

Gene: LilDirt\_72 Start: 48938, Stop: 49297, Start Num: 3  
Candidate Starts for LilDirt\_72:  
(Start: 3 @48938 has 33 MA's), (5, 48983), (12, 49106), (13, 49109), (17, 49172), (19, 49193), (23, 49247), (27, 49289),

Gene: LindNT\_79 Start: 52889, Stop: 53365, Start Num: 3  
Candidate Starts for LindNT\_79:  
(Start: 3 @52889 has 33 MA's), (7, 52952), (19, 53132), (22, 53180), (27, 53234),

Gene: Megsy\_85 Start: 53058, Stop: 53534, Start Num: 3  
Candidate Starts for Megsy\_85:  
(Start: 3 @53058 has 33 MA's), (7, 53121), (8, 53142), (19, 53301), (21, 53328), (22, 53349), (27, 53403), (35, 53487),

Gene: Mynx\_82 Start: 53173, Stop: 53649, Start Num: 3  
Candidate Starts for Mynx\_82:  
(Start: 3 @53173 has 33 MA's), (7, 53236), (19, 53416), (21, 53443), (22, 53464), (27, 53518),

Gene: OkiRoe\_75 Start: 51530, Stop: 52093, Start Num: 3  
Candidate Starts for OkiRoe\_75:  
(Start: 3 @51530 has 33 MA's), (5, 51575), (20, 51806), (22, 51836), (23, 51839), (26, 51878), (32, 51938), (33, 51941),

Gene: Pisa1\_81 Start: 53110, Stop: 53586, Start Num: 3  
Candidate Starts for Pisa1\_81:  
(Start: 3 @53110 has 33 MA's), (4, 53122), (7, 53173), (16, 53329), (19, 53353), (21, 53380), (22, 53401), (27, 53455),

Gene: Pisa4\_75 Start: 48479, Stop: 48955, Start Num: 3  
Candidate Starts for Pisa4\_75:  
(Start: 3 @48479 has 33 MA's), (4, 48491), (7, 48542), (16, 48698), (19, 48722), (21, 48749), (22, 48770), (27, 48824),

Gene: Pokerus\_81 Start: 52873, Stop: 53349, Start Num: 3  
Candidate Starts for Pokerus\_81:  
(Start: 3 @52873 has 33 MA's), (7, 52936), (15, 53074), (19, 53116), (21, 53143), (22, 53164), (27, 53218),

Gene: QuincyRose\_79 Start: 52871, Stop: 53347, Start Num: 3  
Candidate Starts for QuincyRose\_79:  
(Start: 3 @52871 has 33 MA's), (4, 52883), (7, 52934), (19, 53114), (21, 53141), (22, 53162), (24, 53192), (27, 53216),

Gene: Rapunzel97\_83 Start: 52845, Stop: 53321, Start Num: 3  
Candidate Starts for Rapunzel97\_83:  
(Start: 3 @52845 has 33 MA's), (7, 52908), (19, 53088), (21, 53115), (22, 53136), (27, 53190),

Gene: Stinson\_82 Start: 53036, Stop: 53512, Start Num: 3  
Candidate Starts for Stinson\_82:  
(Start: 3 @53036 has 33 MA's), (4, 53048), (7, 53099), (15, 53237), (19, 53279), (21, 53306), (22, 53327), (24, 53357), (27, 53381),

Gene: Thyatira\_76 Start: 53221, Stop: 53565, Start Num: 3

Candidate Starts for Thyatira\_76:

(Start: 3 @53221 has 33 MA's), (5, 53266), (12, 53374), (14, 53404), (19, 53461),

Gene: ViviJ\_79 Start: 51225, Stop: 51584, Start Num: 3

Candidate Starts for ViviJ\_79:

(Start: 3 @51225 has 33 MA's), (5, 51270), (12, 51393), (13, 51396), (17, 51459), (19, 51480), (23, 51534), (27, 51576),

Gene: Waterfoul\_75 Start: 51291, Stop: 51635, Start Num: 3

Candidate Starts for Waterfoul\_75:

(Start: 3 @51291 has 33 MA's), (5, 51336), (12, 51444), (14, 51474), (19, 51531),

Gene: YoureAdopted\_80 Start: 52656, Stop: 53132, Start Num: 3

Candidate Starts for YoureAdopted\_80:

(Start: 3 @52656 has 33 MA's), (7, 52719), (15, 52857), (19, 52899), (21, 52926), (22, 52947), (24, 52977), (27, 53001),

Gene: Yuna\_83 Start: 54192, Stop: 54572, Start Num: 6

Candidate Starts for Yuna\_83:

(Start: 6 @54192 has 1 MA's), (8, 54234), (9, 54243), (10, 54309),

Gene: Yunkel11\_86 Start: 52988, Stop: 53380, Start Num: 3

Candidate Starts for Yunkel11\_86:

(Start: 3 @52988 has 33 MA's), (7, 53051), (8, 53072), (18, 53222), (19, 53231), (20, 53249), (23, 53282), (25, 53318), (28, 53336), (29, 53351), (31, 53372),