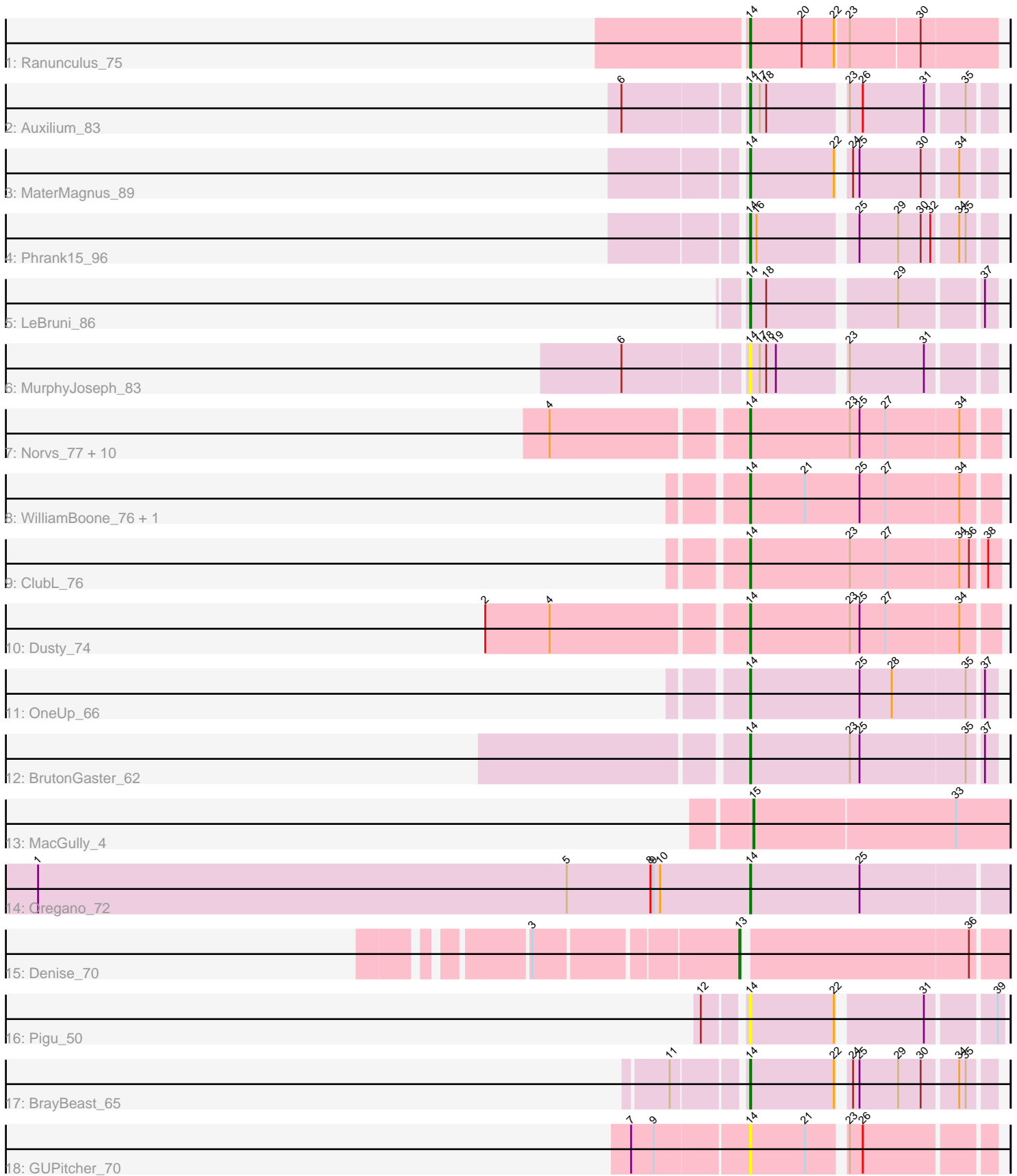


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Note: Tracks are now grouped by subcluster and scaled. Switching in subcluster is indicated by changes in track color. Track scale is now set by default to display the region 30 bp upstream of start 1 to 30 bp downstream of the last possible start. 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 309055 Report

This analysis was run 06/27/26 on database version 652.

Pham number 309055 has 29 members, 4 are drafts.

Phages represented in each track:

- Track 1 : Ranunculus\_75
- Track 2 : Auxilium\_83
- Track 3 : MaterMagnus\_89
- Track 4 : Phrank15\_96
- Track 5 : LeBruni\_86
- Track 6 : MurphyJoseph\_83
- Track 7 : Norvs\_77, Toniann\_77, Bachita\_78, Lozinak\_77, Smoothie\_78, Aphelion\_76, Abscondus\_76, Cucurbita\_78, PhinkBoden\_76, Engineer\_78, Geeche\_75
- Track 8 : WilliamBoone\_76, Culver\_78
- Track 9 : ClubL\_76
- Track 10 : Dusty\_74
- Track 11 : OneUp\_66
- Track 12 : BrutonGaster\_62
- Track 13 : MacGully\_4
- Track 14 : Oregano\_72
- Track 15 : Denise\_70
- Track 16 : Pigu\_50
- Track 17 : BrayBeast\_65
- Track 18 : GUPitcher\_70

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

The start number called the most often in the published annotations is 14, it was called in 23 of the 25 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Abscondus\_76, Aphelion\_76, Auxilium\_83, Bachita\_78, BrayBeast\_65, BrutonGaster\_62, ClubL\_76, Cucurbita\_78, Culver\_78, Dusty\_74, Engineer\_78, GUPitcher\_70, Geeche\_75, LeBruni\_86, Lozinak\_77, MaterMagnus\_89, MurphyJoseph\_83, Norvs\_77, OneUp\_66, Oregano\_72, PhinkBoden\_76, Phrank15\_96, Pigu\_50, Ranunculus\_75, Smoothie\_78, Toniann\_77, WilliamBoone\_76,

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

- 

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

- Denise\_70, MacGully\_4,

### Summary by start number:

Start 13:

- Found in 1 of 29 ( 3.4% ) of genes in pham
- Manual Annotations of this start: 1 of 25
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Denise\_70 (CZ5),

Start 14:

- Found in 27 of 29 ( 93.1% ) of genes in pham
- Manual Annotations of this start: 23 of 25
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Abscondus\_76 (CQ1), Aphelion\_76 (CQ1), Auxilium\_83 (AY), Bachita\_78 (CQ1), BrayBeast\_65 (FB), BrutonGaster\_62 (CQ2), ClubL\_76 (CQ1), Cucurbita\_78 (CQ1), Culver\_78 (CQ1), Dusty\_74 (CQ1), Engineer\_78 (CQ1), GUPitcher\_70 (FJ), Geeche\_75 (CQ1), LeBruni\_86 (AY), Lozinak\_77 (CQ1), MaterMagnus\_89 (AY), MurphyJoseph\_83 (AY), Norvs\_77 (CQ1), OneUp\_66 (CQ2), Oregano\_72 (CZ4), PhinkBoden\_76 (CQ1), Phrank15\_96 (AY), Pigu\_50 (FB), Ranunculus\_75 (AP), Smoothie\_78 (CQ1), Toniann\_77 (CQ1), WilliamBoone\_76 (CQ1),

Start 15:

- Found in 1 of 29 ( 3.4% ) of genes in pham
- Manual Annotations of this start: 1 of 25
- Called 100.0% of time when present
- Phage (with cluster) where this start called: MacGully\_4 (CR7),

### Summary by clusters:

There are 9 clusters represented in this pham: CR7, CZ4, CZ5, AP, FB, AY, CQ2, CQ1, FJ,

Info for manual annotations of cluster AP:

- Start number 14 was manually annotated 1 time for cluster AP.

Info for manual annotations of cluster AY:

- Start number 14 was manually annotated 4 times for cluster AY.

Info for manual annotations of cluster CQ1:

- Start number 14 was manually annotated 14 times for cluster CQ1.

Info for manual annotations of cluster CQ2:

- Start number 14 was manually annotated 2 times for cluster CQ2.

Info for manual annotations of cluster CR7:

- Start number 15 was manually annotated 1 time for cluster CR7.

Info for manual annotations of cluster CZ4:

- Start number 14 was manually annotated 1 time for cluster CZ4.

Info for manual annotations of cluster CZ5:

- Start number 13 was manually annotated 1 time for cluster CZ5.

Info for manual annotations of cluster FB:

- Start number 14 was manually annotated 1 time for cluster FB.

### **Gene Information:**

Gene: Abscondus\_76 Start: 49066, Stop: 49290, Start Num: 14

Candidate Starts for Abscondus\_76:

(4, 48907), (Start: 14 @49066 has 23 MA's), (23, 49159), (25, 49168), (27, 49192), (34, 49258),

Gene: Aphelion\_76 Start: 49688, Stop: 49912, Start Num: 14

Candidate Starts for Aphelion\_76:

(4, 49529), (Start: 14 @49688 has 23 MA's), (23, 49781), (25, 49790), (27, 49814), (34, 49880),

Gene: Auxilium\_83 Start: 45836, Stop: 46042, Start Num: 14

Candidate Starts for Auxilium\_83:

(6, 45728), (Start: 14 @45836 has 23 MA's), (17, 45845), (18, 45851), (23, 45917), (26, 45929), (31, 45986), (35, 46019),

Gene: Bachita\_78 Start: 50113, Stop: 50337, Start Num: 14

Candidate Starts for Bachita\_78:

(4, 49954), (Start: 14 @50113 has 23 MA's), (23, 50206), (25, 50215), (27, 50239), (34, 50305),

Gene: BrayBeast\_65 Start: 36282, Stop: 36488, Start Num: 14

Candidate Starts for BrayBeast\_65:

(11, 36222), (Start: 14 @36282 has 23 MA's), (22, 36360), (24, 36366), (25, 36372), (29, 36408), (30, 36429), (34, 36459), (35, 36465),

Gene: BrutonGaster\_62 Start: 45435, Stop: 45656, Start Num: 14

Candidate Starts for BrutonGaster\_62:

(Start: 14 @45435 has 23 MA's), (23, 45528), (25, 45537), (35, 45633), (37, 45645),

Gene: ClubL\_76 Start: 48801, Stop: 49025, Start Num: 14

Candidate Starts for ClubL\_76:

(Start: 14 @48801 has 23 MA's), (23, 48894), (27, 48927), (34, 48993), (36, 49002), (38, 49014),

Gene: Cucurbita\_78 Start: 50620, Stop: 50844, Start Num: 14

Candidate Starts for Cucurbita\_78:

(4, 50461), (Start: 14 @50620 has 23 MA's), (23, 50713), (25, 50722), (27, 50746), (34, 50812),

Gene: Culver\_78 Start: 48718, Stop: 48948, Start Num: 14

Candidate Starts for Culver\_78:

(Start: 14 @48718 has 23 MA's), (21, 48769), (25, 48820), (27, 48844), (34, 48910),

Gene: Denise\_70 Start: 41290, Stop: 41523, Start Num: 13

Candidate Starts for Denise\_70:  
(3, 41116), (Start: 13 @41290 has 1 MA's), (36, 41491),

Gene: Dusty\_74 Start: 48313, Stop: 48537, Start Num: 14  
Candidate Starts for Dusty\_74:  
(2, 48094), (4, 48154), (Start: 14 @48313 has 23 MA's), (23, 48406), (25, 48415), (27, 48439), (34, 48505),

Gene: Engineer\_78 Start: 50086, Stop: 50310, Start Num: 14  
Candidate Starts for Engineer\_78:  
(4, 49927), (Start: 14 @50086 has 23 MA's), (23, 50179), (25, 50188), (27, 50212), (34, 50278),

Gene: GUPitcher\_70 Start: 41633, Stop: 41839, Start Num: 14  
Candidate Starts for GUPitcher\_70:  
(7, 41540), (9, 41561), (Start: 14 @41633 has 23 MA's), (21, 41684), (23, 41714), (26, 41726),

Gene: Geeche\_75 Start: 49150, Stop: 49374, Start Num: 14  
Candidate Starts for Geeche\_75:  
(4, 48991), (Start: 14 @49150 has 23 MA's), (23, 49243), (25, 49252), (27, 49276), (34, 49342),

Gene: LeBruni\_86 Start: 48139, Stop: 48345, Start Num: 14  
Candidate Starts for LeBruni\_86:  
(Start: 14 @48139 has 23 MA's), (18, 48154), (29, 48265), (37, 48334),

Gene: Lozinak\_77 Start: 49924, Stop: 50148, Start Num: 14  
Candidate Starts for Lozinak\_77:  
(4, 49765), (Start: 14 @49924 has 23 MA's), (23, 50017), (25, 50026), (27, 50050), (34, 50116),

Gene: MacGully\_4 Start: 2136, Stop: 2372, Start Num: 15  
Candidate Starts for MacGully\_4:  
(Start: 15 @2136 has 1 MA's), (33, 2322),

Gene: MaterMagnus\_89 Start: 50185, Stop: 50391, Start Num: 14  
Candidate Starts for MaterMagnus\_89:  
(Start: 14 @50185 has 23 MA's), (22, 50263), (24, 50269), (25, 50275), (30, 50332), (34, 50362),

Gene: MurphyJoseph\_83 Start: 46838, Stop: 47044, Start Num: 14  
Candidate Starts for MurphyJoseph\_83:  
(6, 46730), (Start: 14 @46838 has 23 MA's), (17, 46847), (18, 46853), (19, 46862), (23, 46919), (31, 46988),

Gene: Norvs\_77 Start: 49333, Stop: 49557, Start Num: 14  
Candidate Starts for Norvs\_77:  
(4, 49174), (Start: 14 @49333 has 23 MA's), (23, 49426), (25, 49435), (27, 49459), (34, 49525),

Gene: OneUp\_66 Start: 47205, Stop: 47426, Start Num: 14  
Candidate Starts for OneUp\_66:  
(Start: 14 @47205 has 23 MA's), (25, 47307), (28, 47337), (35, 47403), (37, 47415),

Gene: Oregano\_72 Start: 44621, Stop: 44854, Start Num: 14  
Candidate Starts for Oregano\_72:  
(1, 43958), (5, 44450), (8, 44528), (9, 44531), (10, 44537), (Start: 14 @44621 has 23 MA's), (25, 44723),

Gene: PhinkBoden\_76 Start: 49714, Stop: 49938, Start Num: 14

Candidate Starts for PhinkBoden\_76:

(4, 49555), (Start: 14 @49714 has 23 MA's), (23, 49807), (25, 49816), (27, 49840), (34, 49906),

Gene: Phrank15\_96 Start: 50571, Stop: 50777, Start Num: 14

Candidate Starts for Phrank15\_96:

(Start: 14 @50571 has 23 MA's), (16, 50577), (25, 50661), (29, 50697), (30, 50718), (32, 50727), (34, 50748), (35, 50754),

Gene: Pigu\_50 Start: 28389, Stop: 28601, Start Num: 14

Candidate Starts for Pigu\_50:

(12, 28356), (Start: 14 @28389 has 23 MA's), (22, 28467), (31, 28539), (39, 28596),

Gene: Ranunculus\_75 Start: 51633, Stop: 51412, Start Num: 14

Candidate Starts for Ranunculus\_75:

(Start: 14 @51633 has 23 MA's), (20, 51585), (22, 51555), (23, 51543), (30, 51480),

Gene: Smoothie\_78 Start: 49924, Stop: 50148, Start Num: 14

Candidate Starts for Smoothie\_78:

(4, 49765), (Start: 14 @49924 has 23 MA's), (23, 50017), (25, 50026), (27, 50050), (34, 50116),

Gene: Toniann\_77 Start: 49276, Stop: 49500, Start Num: 14

Candidate Starts for Toniann\_77:

(4, 49117), (Start: 14 @49276 has 23 MA's), (23, 49369), (25, 49378), (27, 49402), (34, 49468),

Gene: WilliamBoone\_76 Start: 48024, Stop: 48248, Start Num: 14

Candidate Starts for WilliamBoone\_76:

(Start: 14 @48024 has 23 MA's), (21, 48075), (25, 48126), (27, 48150), (34, 48216),