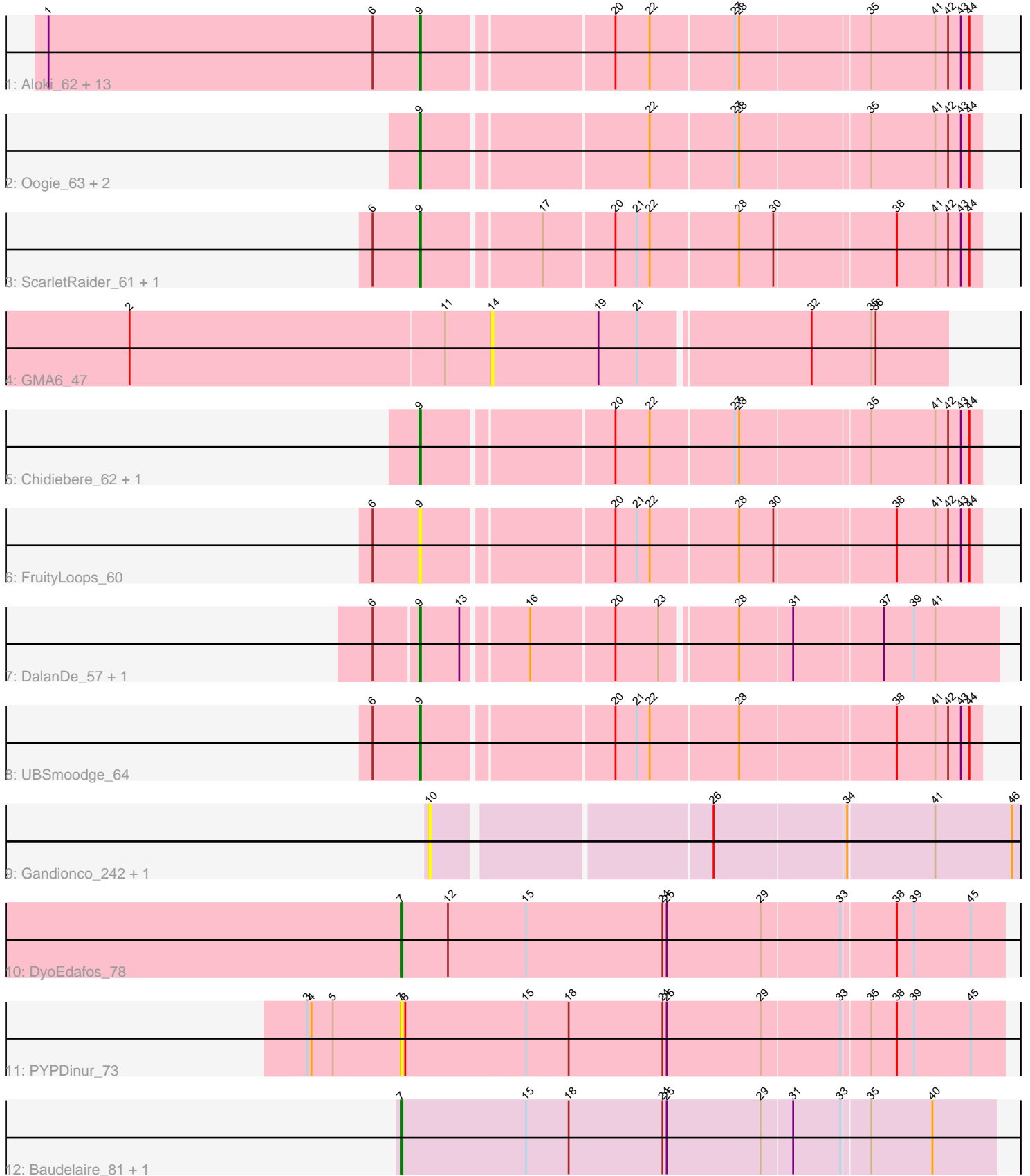


Pham 309004



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 309004 Report

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

Pham number 309004 has 32 members, 17 are drafts.

Phages represented in each track:

- Track 1 : Alok\_i\_62, Gray\_62, Argena\_60, Toneprano\_60, EmoNemo\_60, Mikronejon\_60, Schomber\_61, Amoonguss\_60, Pakusa\_60, Hanem\_62, Farrylious\_60, Kabocha\_63, Twin\_60, ChisanaKitsune\_58
- Track 2 : Oogie\_63, Beted\_62, Lenoshki\_62
- Track 3 : ScarletRaider\_61, FlyingTortilla\_62
- Track 4 : GMA6\_47
- Track 5 : Chidiebere\_62, MintFritos\_60
- Track 6 : FruityLoops\_60
- Track 7 : DalanDe\_57, Thales\_56
- Track 8 : UBSmoodge\_64
- Track 9 : Gandionco\_242, Marianna39\_242
- Track 10 : DyoEdafos\_78
- Track 11 : PYPDinur\_73
- Track 12 : Baudelaire\_81, Aegeus\_81

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

The start number called the most often in the published annotations is 9, it was called in 12 of the 15 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Alok\_i\_62, Amoonguss\_60, Argena\_60, Beted\_62, Chidiebere\_62, ChisanaKitsune\_58, DalanDe\_57, EmoNemo\_60, Farrylious\_60, FlyingTortilla\_62, FruityLoops\_60, Gray\_62, Hanem\_62, Kabocha\_63, Lenoshki\_62, Mikronejon\_60, MintFritos\_60, Oogie\_63, Pakusa\_60, ScarletRaider\_61, Schomber\_61, Thales\_56, Toneprano\_60, Twin\_60, UBSmoodge\_64,

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

- 

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

- Aegeus\_81, Baudelaire\_81, DyoEdafos\_78, GMA6\_47, Gandionco\_242, Marianna39\_242, PYPDinur\_73,

## Summary by start number:

### Start 7:

- Found in 4 of 32 ( 12.5% ) of genes in pham
- Manual Annotations of this start: 3 of 15
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Aegeus\_81 (L5), Baudelaire\_81 (L5), DyoEdafos\_78 (L4), PYPDinur\_73 (L4),

### Start 9:

- Found in 25 of 32 ( 78.1% ) of genes in pham
- Manual Annotations of this start: 12 of 15
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Alok\_i\_62 (DQ), Amoonguss\_60 (DQ), Argena\_60 (DQ), Beted\_62 (DQ), Chidiebere\_62 (DQ), ChisanaKitsune\_58 (DQ), DalanDe\_57 (DQ), EmoNemo\_60 (DQ), Farrylious\_60 (DQ), FlyingTortilla\_62 (DQ), FruityLoops\_60 (DQ), Gray\_62 (DQ), Hanem\_62 (DQ), Kabocha\_63 (DQ), Lenoshki\_62 (DQ), Mikronejon\_60 (DQ), MintFritos\_60 (DQ), Oogie\_63 (DQ), Pakusa\_60 (DQ), ScarletRaider\_61 (DQ), Schomber\_61 (DQ), Thales\_56 (DQ), Toneprano\_60 (DQ), Twin\_60 (DQ), UBSmoodge\_64 (DQ),

### Start 10:

- Found in 2 of 32 ( 6.2% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Gandionco\_242 (FK), Marianna39\_242 (FK),

### Start 14:

- Found in 1 of 32 ( 3.1% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: GMA6\_47 (DQ),

## Summary by clusters:

There are 4 clusters represented in this pham: L4, FK, L5, DQ,

Info for manual annotations of cluster DQ:

- Start number 9 was manually annotated 12 times for cluster DQ.

Info for manual annotations of cluster L4:

- Start number 7 was manually annotated 1 time for cluster L4.

Info for manual annotations of cluster L5:

- Start number 7 was manually annotated 2 times for cluster L5.

## Gene Information:

Gene: Aegeus\_81 Start: 50995, Stop: 51405, Start Num: 7

Candidate Starts for Aegeus\_81:

(Start: 7 @50995 has 3 MA's), (15, 51082), (18, 51112), (24, 51178), (25, 51181), (29, 51247), (31, 51268), (33, 51301), (35, 51319), (40, 51361),

Gene: Alok\_i\_62 Start: 50472, Stop: 50846, Start Num: 9

Candidate Starts for Alok\_i\_62:

(1, 50211), (6, 50439), (Start: 9 @50472 has 12 MA's), (20, 50598), (22, 50622), (27, 50679), (28, 50682), (35, 50769), (41, 50814), (42, 50823), (43, 50832), (44, 50838),

Gene: Amoonguss\_60 Start: 50475, Stop: 50849, Start Num: 9

Candidate Starts for Amoonguss\_60:

(1, 50214), (6, 50442), (Start: 9 @50475 has 12 MA's), (20, 50601), (22, 50625), (27, 50682), (28, 50685), (35, 50772), (41, 50817), (42, 50826), (43, 50835), (44, 50841),

Gene: Argena\_60 Start: 50487, Stop: 50861, Start Num: 9

Candidate Starts for Argena\_60:

(1, 50226), (6, 50454), (Start: 9 @50487 has 12 MA's), (20, 50613), (22, 50637), (27, 50694), (28, 50697), (35, 50784), (41, 50829), (42, 50838), (43, 50847), (44, 50853),

Gene: Baudelaire\_81 Start: 50995, Stop: 51405, Start Num: 7

Candidate Starts for Baudelaire\_81:

(Start: 7 @50995 has 3 MA's), (15, 51082), (18, 51112), (24, 51178), (25, 51181), (29, 51247), (31, 51268), (33, 51301), (35, 51319), (40, 51361),

Gene: Beted\_62 Start: 52167, Stop: 52541, Start Num: 9

Candidate Starts for Beted\_62:

(Start: 9 @52167 has 12 MA's), (22, 52317), (27, 52374), (28, 52377), (35, 52464), (41, 52509), (42, 52518), (43, 52527), (44, 52533),

Gene: Chidiebere\_62 Start: 50472, Stop: 50846, Start Num: 9

Candidate Starts for Chidiebere\_62:

(Start: 9 @50472 has 12 MA's), (20, 50598), (22, 50622), (27, 50679), (28, 50682), (35, 50769), (41, 50814), (42, 50823), (43, 50832), (44, 50838),

Gene: ChisanaKitsune\_58 Start: 49266, Stop: 49640, Start Num: 9

Candidate Starts for ChisanaKitsune\_58:

(1, 49005), (6, 49233), (Start: 9 @49266 has 12 MA's), (20, 49392), (22, 49416), (27, 49473), (28, 49476), (35, 49563), (41, 49608), (42, 49617), (43, 49626), (44, 49632),

Gene: DalanDe\_57 Start: 53394, Stop: 53774, Start Num: 9

Candidate Starts for DalanDe\_57:

(6, 53364), (Start: 9 @53394 has 12 MA's), (13, 53421), (16, 53463), (20, 53520), (23, 53550), (28, 53598), (31, 53634), (37, 53694), (39, 53715), (41, 53730),

Gene: DyoEdafos\_78 Start: 49663, Stop: 50079, Start Num: 7

Candidate Starts for DyoEdafos\_78:

(Start: 7 @49663 has 3 MA's), (12, 49696), (15, 49750), (24, 49846), (25, 49849), (29, 49915), (33, 49969), (38, 50005), (39, 50017), (45, 50056),

Gene: EmoNemo\_60 Start: 50472, Stop: 50846, Start Num: 9

Candidate Starts for EmoNemo\_60:

(1, 50211), (6, 50439), (Start: 9 @50472 has 12 MA's), (20, 50598), (22, 50622), (27, 50679), (28, 50682), (35, 50769), (41, 50814), (42, 50823), (43, 50832), (44, 50838),

Gene: Farrylious\_60 Start: 50251, Stop: 50625, Start Num: 9

Candidate Starts for Farrylious\_60:

(1, 49990), (6, 50218), (Start: 9 @50251 has 12 MA's), (20, 50377), (22, 50401), (27, 50458), (28, 50461), (35, 50548), (41, 50593), (42, 50602), (43, 50611), (44, 50617),

Gene: FlyingTortilla\_62 Start: 54094, Stop: 54468, Start Num: 9

Candidate Starts for FlyingTortilla\_62:

(6, 54061), (Start: 9 @54094 has 12 MA's), (17, 54172), (20, 54220), (21, 54235), (22, 54244), (28, 54304), (30, 54328), (38, 54409), (41, 54436), (42, 54445), (43, 54454), (44, 54460),

Gene: FruityLoops\_60 Start: 53399, Stop: 53773, Start Num: 9

Candidate Starts for FruityLoops\_60:

(6, 53366), (Start: 9 @53399 has 12 MA's), (20, 53525), (21, 53540), (22, 53549), (28, 53609), (30, 53633), (38, 53714), (41, 53741), (42, 53750), (43, 53759), (44, 53765),

Gene: GMA6\_47 Start: 41896, Stop: 42207, Start Num: 14

Candidate Starts for GMA6\_47:

(2, 41644), (11, 41863), (14, 41896), (19, 41971), (21, 41998), (32, 42112), (35, 42154), (36, 42157),

Gene: Gandionco\_242 Start: 107900, Stop: 108292, Start Num: 10

Candidate Starts for Gandionco\_242:

(10, 107900), (26, 108083), (34, 108173), (41, 108233), (46, 108287),

Gene: Gray\_62 Start: 50473, Stop: 50847, Start Num: 9

Candidate Starts for Gray\_62:

(1, 50212), (6, 50440), (Start: 9 @50473 has 12 MA's), (20, 50599), (22, 50623), (27, 50680), (28, 50683), (35, 50770), (41, 50815), (42, 50824), (43, 50833), (44, 50839),

Gene: Hanem\_62 Start: 50472, Stop: 50846, Start Num: 9

Candidate Starts for Hanem\_62:

(1, 50211), (6, 50439), (Start: 9 @50472 has 12 MA's), (20, 50598), (22, 50622), (27, 50679), (28, 50682), (35, 50769), (41, 50814), (42, 50823), (43, 50832), (44, 50838),

Gene: Kabocha\_63 Start: 51285, Stop: 51659, Start Num: 9

Candidate Starts for Kabocha\_63:

(1, 51024), (6, 51252), (Start: 9 @51285 has 12 MA's), (20, 51411), (22, 51435), (27, 51492), (28, 51495), (35, 51582), (41, 51627), (42, 51636), (43, 51645), (44, 51651),

Gene: Lenoshki\_62 Start: 52167, Stop: 52541, Start Num: 9

Candidate Starts for Lenoshki\_62:

(Start: 9 @52167 has 12 MA's), (22, 52317), (27, 52374), (28, 52377), (35, 52464), (41, 52509), (42, 52518), (43, 52527), (44, 52533),

Gene: Marianna39\_242 Start: 108503, Stop: 108895, Start Num: 10

Candidate Starts for Marianna39\_242:

(10, 108503), (26, 108686), (34, 108776), (41, 108836), (46, 108890),

Gene: Mikronejon\_60 Start: 50472, Stop: 50846, Start Num: 9

Candidate Starts for Mikronejon\_60:

(1, 50211), (6, 50439), (Start: 9 @50472 has 12 MA's), (20, 50598), (22, 50622), (27, 50679), (28, 50682), (35, 50769), (41, 50814), (42, 50823), (43, 50832), (44, 50838),

Gene: MintFritos\_60 Start: 50473, Stop: 50847, Start Num: 9

Candidate Starts for MintFritos\_60:

(Start: 9 @50473 has 12 MA's), (20, 50599), (22, 50623), (27, 50680), (28, 50683), (35, 50770), (41, 50815), (42, 50824), (43, 50833), (44, 50839),

Gene: Oogie\_63 Start: 52193, Stop: 52567, Start Num: 9

Candidate Starts for Oogie\_63:

(Start: 9 @52193 has 12 MA's), (22, 52343), (27, 52400), (28, 52403), (35, 52490), (41, 52535), (42, 52544), (43, 52553), (44, 52559),

Gene: PYPDinur\_73 Start: 49425, Stop: 49841, Start Num: 7

Candidate Starts for PYPDinur\_73:

(3, 49359), (4, 49362), (5, 49377), (Start: 7 @49425 has 3 MA's), (8, 49428), (15, 49512), (18, 49542), (24, 49608), (25, 49611), (29, 49677), (33, 49731), (35, 49749), (38, 49767), (39, 49779), (45, 49818),

Gene: Pakusa\_60 Start: 50214, Stop: 50588, Start Num: 9

Candidate Starts for Pakusa\_60:

(1, 49953), (6, 50181), (Start: 9 @50214 has 12 MA's), (20, 50340), (22, 50364), (27, 50421), (28, 50424), (35, 50511), (41, 50556), (42, 50565), (43, 50574), (44, 50580),

Gene: ScarletRaider\_61 Start: 53381, Stop: 53755, Start Num: 9

Candidate Starts for ScarletRaider\_61:

(6, 53348), (Start: 9 @53381 has 12 MA's), (17, 53459), (20, 53507), (21, 53522), (22, 53531), (28, 53591), (30, 53615), (38, 53696), (41, 53723), (42, 53732), (43, 53741), (44, 53747),

Gene: Schomber\_61 Start: 50222, Stop: 50596, Start Num: 9

Candidate Starts for Schomber\_61:

(1, 49961), (6, 50189), (Start: 9 @50222 has 12 MA's), (20, 50348), (22, 50372), (27, 50429), (28, 50432), (35, 50519), (41, 50564), (42, 50573), (43, 50582), (44, 50588),

Gene: Thales\_56 Start: 52309, Stop: 52689, Start Num: 9

Candidate Starts for Thales\_56:

(6, 52279), (Start: 9 @52309 has 12 MA's), (13, 52336), (16, 52378), (20, 52435), (23, 52465), (28, 52513), (31, 52549), (37, 52609), (39, 52630), (41, 52645),

Gene: Toneprano\_60 Start: 50487, Stop: 50861, Start Num: 9

Candidate Starts for Toneprano\_60:

(1, 50226), (6, 50454), (Start: 9 @50487 has 12 MA's), (20, 50613), (22, 50637), (27, 50694), (28, 50697), (35, 50784), (41, 50829), (42, 50838), (43, 50847), (44, 50853),

Gene: Twin\_60 Start: 50472, Stop: 50846, Start Num: 9

Candidate Starts for Twin\_60:

(1, 50211), (6, 50439), (Start: 9 @50472 has 12 MA's), (20, 50598), (22, 50622), (27, 50679), (28, 50682), (35, 50769), (41, 50814), (42, 50823), (43, 50832), (44, 50838),

Gene: UBSmoodge\_64 Start: 53863, Stop: 54237, Start Num: 9

Candidate Starts for UBSmoodge\_64:

(6, 53830), (Start: 9 @53863 has 12 MA's), (20, 53989), (21, 54004), (22, 54013), (28, 54073), (38, 54178), (41, 54205), (42, 54214), (43, 54223), (44, 54229),