



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 173299 Report

This analysis was run 11/02/24 on database version 579.

Pham number 173299 has 18 members, 8 are drafts.

Phages represented in each track:

- Track 1 : Alok\_i\_114, MintFritos\_119, Kabocha\_124, Chidiebere\_123, Gray\_119, Hanem\_121, Schomber\_121, Twin\_117, Pakusa\_116
- Track 2 : ChisanaKitsune\_121
- Track 3 : DalanDe\_106
- Track 4 : Oogie\_118
- Track 5 : Beted\_119, Lenoshki\_119
- Track 6 : UBSmoodge\_124
- Track 7 : FlyingTortilla\_119
- Track 8 : GMA6\_104
- Track 9 : ScarletRaider\_120

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

The start number called the most often in the published annotations is 1, it was called in 9 of the 10 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Alok\_i\_114, Beted\_119, Chidiebere\_123, ChisanaKitsune\_121, DalanDe\_106, GMA6\_104, Gray\_119, Hanem\_121, Kabocha\_124, Lenoshki\_119, MintFritos\_119, Oogie\_118, Pakusa\_116, ScarletRaider\_120, Schomber\_121, Twin\_117, UBSmoodge\_124,

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

- FlyingTortilla\_119,

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

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

Start 1:

- Found in 18 of 18 ( 100.0% ) of genes in pham
- Manual Annotations of this start: 9 of 10
- Called 94.4% of time when present

- Phage (with cluster) where this start called: Alok\_i\_114 (DQ), Beted\_119 (DQ), Chidiebere\_123 (DQ), ChisanaKitsune\_121 (DQ), DalanDe\_106 (DQ), GMA6\_104 (DQ), Gray\_119 (DQ), Hanem\_121 (DQ), Kabocha\_124 (DQ), Lenoshki\_119 (DQ), MintFritos\_119 (DQ), Oogie\_118 (DQ), Pakusa\_116 (DQ), ScarletRaider\_120 (DQ), Schomber\_121 (DQ), Twin\_117 (DQ), UBSmoodge\_124 (DQ),

Start 4:

- Found in 2 of 18 ( 11.1% ) of genes in pham
- Manual Annotations of this start: 1 of 10
- Called 50.0% of time when present
- Phage (with cluster) where this start called: FlyingTortilla\_119 (DQ),

### Summary by clusters:

There is one cluster represented in this pham: DQ

Info for manual annotations of cluster DQ:

- Start number 1 was manually annotated 9 times for cluster DQ.
- Start number 4 was manually annotated 1 time for cluster DQ.

### Gene Information:

Gene: Alok\_i\_114 Start: 84783, Stop: 86426, Start Num: 1

Candidate Starts for Alok\_i\_114:

(Start: 1 @84783 has 9 MA's), (3, 84840), (5, 84897), (6, 84918), (7, 84933), (8, 84945), (11, 85005), (14, 85053), (15, 85071), (18, 85128), (19, 85143), (22, 85224), (26, 85335), (34, 85479), (35, 85506), (36, 85527), (37, 85533), (39, 85605), (42, 85707), (46, 85767), (52, 85875), (53, 85881), (56, 85917), (58, 85935), (60, 85959), (61, 85965), (62, 85986), (64, 86010), (66, 86040), (71, 86106), (72, 86112), (75, 86172), (77, 86202), (80, 86238), (83, 86304), (90, 86382), (95, 86412),

Gene: Beted\_119 Start: 87157, Stop: 88800, Start Num: 1

Candidate Starts for Beted\_119:

(Start: 1 @87157 has 9 MA's), (3, 87214), (5, 87271), (6, 87292), (7, 87307), (8, 87319), (11, 87379), (14, 87427), (15, 87445), (18, 87502), (19, 87517), (22, 87598), (26, 87709), (34, 87853), (35, 87880), (36, 87901), (37, 87907), (39, 87979), (42, 88081), (46, 88141), (52, 88249), (53, 88255), (56, 88291), (58, 88309), (60, 88333), (61, 88339), (62, 88360), (64, 88384), (66, 88414), (71, 88480), (72, 88486), (77, 88576), (80, 88612), (83, 88678), (90, 88756), (95, 88786),

Gene: Chidiebere\_123 Start: 86686, Stop: 88329, Start Num: 1

Candidate Starts for Chidiebere\_123:

(Start: 1 @86686 has 9 MA's), (3, 86743), (5, 86800), (6, 86821), (7, 86836), (8, 86848), (11, 86908), (14, 86956), (15, 86974), (18, 87031), (19, 87046), (22, 87127), (26, 87238), (34, 87382), (35, 87409), (36, 87430), (37, 87436), (39, 87508), (42, 87610), (46, 87670), (52, 87778), (53, 87784), (56, 87820), (58, 87838), (60, 87862), (61, 87868), (62, 87889), (64, 87913), (66, 87943), (71, 88009), (72, 88015), (75, 88075), (77, 88105), (80, 88141), (83, 88207), (90, 88285), (95, 88315),

Gene: ChisanaKitsune\_121 Start: 84929, Stop: 86572, Start Num: 1

Candidate Starts for ChisanaKitsune\_121:

(Start: 1 @84929 has 9 MA's), (3, 84986), (5, 85043), (7, 85079), (8, 85091), (11, 85151), (14, 85199), (15, 85217), (18, 85274), (19, 85289), (22, 85370), (26, 85481), (33, 85619), (34, 85625), (35, 85652), (36, 85673), (38, 85733), (42, 85853), (46, 85913), (52, 86021), (53, 86027), (56, 86063), (58, 86081),

(60, 86105), (61, 86111), (62, 86132), (64, 86156), (66, 86186), (71, 86252), (72, 86258), (75, 86318), (77, 86348), (80, 86384), (83, 86450), (90, 86528), (95, 86558),

Gene: DalanDe\_106 Start: 82821, Stop: 84455, Start Num: 1

Candidate Starts for DalanDe\_106:

(Start: 1 @82821 has 9 MA's), (2, 82830), (8, 82983), (9, 82998), (13, 83082), (16, 83130), (17, 83160), (23, 83301), (25, 83367), (29, 83454), (30, 83460), (31, 83487), (33, 83523), (35, 83556), (38, 83637), (39, 83655), (40, 83676), (42, 83739), (44, 83769), (48, 83853), (49, 83856), (50, 83883), (52, 83904), (59, 83979), (64, 84039), (65, 84063), (66, 84069), (67, 84084), (68, 84102), (72, 84141), (82, 84330), (87, 84360), (91, 84417), (93, 84432),

Gene: FlyingTortilla\_119 Start: 88841, Stop: 90307, Start Num: 4

Candidate Starts for FlyingTortilla\_119:

(Start: 1 @88739 has 9 MA's), (3, 88796), (Start: 4 @88841 has 1 MA's), (5, 88853), (7, 88889), (8, 88901), (14, 89009), (15, 89027), (24, 89240), (26, 89291), (36, 89483), (41, 89612), (45, 89672), (47, 89726), (52, 89795), (63, 89906), (69, 89969), (70, 89972), (76, 90065), (86, 90212), (94, 90293),

Gene: GMA6\_104 Start: 76794, Stop: 78356, Start Num: 1

Candidate Starts for GMA6\_104:

(Start: 1 @76794 has 9 MA's), (3, 76851), (8, 76956), (9, 76971), (10, 76998), (12, 77046), (13, 77055), (16, 77079), (20, 77148), (21, 77208), (22, 77214), (27, 77358), (28, 77382), (32, 77439), (34, 77466), (37, 77520), (38, 77577), (41, 77646), (43, 77691), (47, 77760), (51, 77823), (52, 77829), (55, 77859), (74, 78084), (78, 78162), (81, 78183), (82, 78243), (85, 78267), (88, 78303), (89, 78312), (92, 78336),

Gene: Gray\_119 Start: 85242, Stop: 86885, Start Num: 1

Candidate Starts for Gray\_119:

(Start: 1 @85242 has 9 MA's), (3, 85299), (5, 85356), (6, 85377), (7, 85392), (8, 85404), (11, 85464), (14, 85512), (15, 85530), (18, 85587), (19, 85602), (22, 85683), (26, 85794), (34, 85938), (35, 85965), (36, 85986), (37, 85992), (39, 86064), (42, 86166), (46, 86226), (52, 86334), (53, 86340), (56, 86376), (58, 86394), (60, 86418), (61, 86424), (62, 86445), (64, 86469), (66, 86499), (71, 86565), (72, 86571), (75, 86631), (77, 86661), (80, 86697), (83, 86763), (90, 86841), (95, 86871),

Gene: Hanem\_121 Start: 84783, Stop: 86426, Start Num: 1

Candidate Starts for Hanem\_121:

(Start: 1 @84783 has 9 MA's), (3, 84840), (5, 84897), (6, 84918), (7, 84933), (8, 84945), (11, 85005), (14, 85053), (15, 85071), (18, 85128), (19, 85143), (22, 85224), (26, 85335), (34, 85479), (35, 85506), (36, 85527), (37, 85533), (39, 85605), (42, 85707), (46, 85767), (52, 85875), (53, 85881), (56, 85917), (58, 85935), (60, 85959), (61, 85965), (62, 85986), (64, 86010), (66, 86040), (71, 86106), (72, 86112), (75, 86172), (77, 86202), (80, 86238), (83, 86304), (90, 86382), (95, 86412),

Gene: Kabocha\_124 Start: 87499, Stop: 89142, Start Num: 1

Candidate Starts for Kabocha\_124:

(Start: 1 @87499 has 9 MA's), (3, 87556), (5, 87613), (6, 87634), (7, 87649), (8, 87661), (11, 87721), (14, 87769), (15, 87787), (18, 87844), (19, 87859), (22, 87940), (26, 88051), (34, 88195), (35, 88222), (36, 88243), (37, 88249), (39, 88321), (42, 88423), (46, 88483), (52, 88591), (53, 88597), (56, 88633), (58, 88651), (60, 88675), (61, 88681), (62, 88702), (64, 88726), (66, 88756), (71, 88822), (72, 88828), (75, 88888), (77, 88918), (80, 88954), (83, 89020), (90, 89098), (95, 89128),

Gene: Lenoshki\_119 Start: 87157, Stop: 88800, Start Num: 1

Candidate Starts for Lenoshki\_119:

(Start: 1 @87157 has 9 MA's), (3, 87214), (5, 87271), (6, 87292), (7, 87307), (8, 87319), (11, 87379), (14, 87427), (15, 87445), (18, 87502), (19, 87517), (22, 87598), (26, 87709), (34, 87853), (35, 87880),

(36, 87901), (37, 87907), (39, 87979), (42, 88081), (46, 88141), (52, 88249), (53, 88255), (56, 88291), (58, 88309), (60, 88333), (61, 88339), (62, 88360), (64, 88384), (66, 88414), (71, 88480), (72, 88486), (77, 88576), (80, 88612), (83, 88678), (90, 88756), (95, 88786),

Gene: MintFritos\_119 Start: 85737, Stop: 87380, Start Num: 1

Candidate Starts for MintFritos\_119:

(Start: 1 @85737 has 9 MA's), (3, 85794), (5, 85851), (6, 85872), (7, 85887), (8, 85899), (11, 85959), (14, 86007), (15, 86025), (18, 86082), (19, 86097), (22, 86178), (26, 86289), (34, 86433), (35, 86460), (36, 86481), (37, 86487), (39, 86559), (42, 86661), (46, 86721), (52, 86829), (53, 86835), (56, 86871), (58, 86889), (60, 86913), (61, 86919), (62, 86940), (64, 86964), (66, 86994), (71, 87060), (72, 87066), (75, 87126), (77, 87156), (80, 87192), (83, 87258), (90, 87336), (95, 87366),

Gene: Oogie\_118 Start: 87207, Stop: 88850, Start Num: 1

Candidate Starts for Oogie\_118:

(Start: 1 @87207 has 9 MA's), (3, 87264), (5, 87321), (6, 87342), (7, 87357), (8, 87369), (11, 87429), (14, 87477), (15, 87495), (18, 87552), (19, 87567), (22, 87648), (26, 87759), (34, 87903), (35, 87930), (36, 87951), (37, 87957), (39, 88029), (42, 88131), (46, 88191), (52, 88299), (53, 88305), (56, 88341), (58, 88359), (60, 88383), (61, 88389), (62, 88410), (64, 88434), (66, 88464), (71, 88530), (72, 88536), (75, 88596), (77, 88626), (80, 88662), (83, 88728), (90, 88806), (95, 88836),

Gene: Pakusa\_116 Start: 84711, Stop: 86354, Start Num: 1

Candidate Starts for Pakusa\_116:

(Start: 1 @84711 has 9 MA's), (3, 84768), (5, 84825), (6, 84846), (7, 84861), (8, 84873), (11, 84933), (14, 84981), (15, 84999), (18, 85056), (19, 85071), (22, 85152), (26, 85263), (34, 85407), (35, 85434), (36, 85455), (37, 85461), (39, 85533), (42, 85635), (46, 85695), (52, 85803), (53, 85809), (56, 85845), (58, 85863), (60, 85887), (61, 85893), (62, 85914), (64, 85938), (66, 85968), (71, 86034), (72, 86040), (75, 86100), (77, 86130), (80, 86166), (83, 86232), (90, 86310), (95, 86340),

Gene: ScarletRaider\_120 Start: 87956, Stop: 89524, Start Num: 1

Candidate Starts for ScarletRaider\_120:

(Start: 1 @87956 has 9 MA's), (7, 88106), (8, 88118), (14, 88226), (15, 88244), (24, 88457), (26, 88508), (36, 88700), (41, 88829), (45, 88889), (52, 89012), (63, 89123), (69, 89186), (70, 89189), (76, 89282), (86, 89429), (94, 89510),

Gene: Schomber\_121 Start: 85887, Stop: 87530, Start Num: 1

Candidate Starts for Schomber\_121:

(Start: 1 @85887 has 9 MA's), (3, 85944), (5, 86001), (6, 86022), (7, 86037), (8, 86049), (11, 86109), (14, 86157), (15, 86175), (18, 86232), (19, 86247), (22, 86328), (26, 86439), (34, 86583), (35, 86610), (36, 86631), (37, 86637), (39, 86709), (42, 86811), (46, 86871), (52, 86979), (53, 86985), (56, 87021), (58, 87039), (60, 87063), (61, 87069), (62, 87090), (64, 87114), (66, 87144), (71, 87210), (72, 87216), (75, 87276), (77, 87306), (80, 87342), (83, 87408), (90, 87486), (95, 87516),

Gene: Twin\_117 Start: 85460, Stop: 87103, Start Num: 1

Candidate Starts for Twin\_117:

(Start: 1 @85460 has 9 MA's), (3, 85517), (5, 85574), (6, 85595), (7, 85610), (8, 85622), (11, 85682), (14, 85730), (15, 85748), (18, 85805), (19, 85820), (22, 85901), (26, 86012), (34, 86156), (35, 86183), (36, 86204), (37, 86210), (39, 86282), (42, 86384), (46, 86444), (52, 86552), (53, 86558), (56, 86594), (58, 86612), (60, 86636), (61, 86642), (62, 86663), (64, 86687), (66, 86717), (71, 86783), (72, 86789), (75, 86849), (77, 86879), (80, 86915), (83, 86981), (90, 87059), (95, 87089),

Gene: UBSmoodge\_124 Start: 88529, Stop: 90133, Start Num: 1

Candidate Starts for UBSmoodge\_124:

(Start: 1 @88529 has 9 MA's), (3, 88586), (Start: 4 @88631 has 1 MA's), (5, 88643), (7, 88679), (8, 88691), (14, 88799), (15, 88817), (24, 89030), (26, 89081), (36, 89273), (41, 89402), (54, 89597), (57, 89633), (70, 89783), (73, 89816), (74, 89849), (79, 89936), (83, 90011), (84, 90014), (93, 90110), (94, 90116), (96, 90125),