

Pham 163652



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 163652 Report

This analysis was run 04/28/24 on database version 559.

Pham number 163652 has 53 members, 3 are drafts.

Phages represented in each track:

- Track 1 : Agape74\_88, LilTurb\_87, Dignity\_88, Jerm\_88, AbbyPaige\_88, Whabigail7\_85, Turbido\_87
- Track 2 : BiancaTri92\_84
- Track 3 : Power\_86, Crucio\_86, Georgie2\_88, SnapTap\_86, QueenB2\_83
- Track 4 : Benvolio\_85, Echild\_89
- Track 5 : XianYue\_85
- Track 6 : DudeLittle\_84, Dalmatian\_86
- Track 7 : Anselm\_87
- Track 8 : Rachaly\_83, BobSwaget\_80, Miko\_81
- Track 9 : Fameo\_84, Heffalump\_83
- Track 10 : LadyBird\_90
- Track 11 : Retro23\_86
- Track 12 : Che12\_88
- Track 13 : NicoleTera\_85
- Track 14 : Trooper\_86
- Track 15 : SweetiePie\_86
- Track 16 : CRB1\_87
- Track 17 : JoshKayV\_88
- Track 18 : EvilGenius\_86, KingCyrus\_85
- Track 19 : ArcherNM\_81
- Track 20 : NothingSpecial\_81
- Track 21 : 20ES\_88
- Track 22 : Leviathan\_88
- Track 23 : First\_0087, BengiVuitton\_88
- Track 24 : QueenBeesly\_86, FiringLine\_86
- Track 25 : Trixie\_86
- Track 26 : Smeagan\_89
- Track 27 : Iwokeuplikedis\_90
- Track 28 : TarsusIV\_85
- Track 29 : ChipMunk\_87
- Track 30 : Lokk\_81
- Track 31 : Odin\_85
- Track 32 : SemperFi\_86
- Track 33 : VA6\_86, AN3\_86
- Track 34 : Deloris\_88

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

The start number called the most often in the published annotations is 13, it was called in 39 of the 50 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- AbbyPaige\_88, Agape74\_88, Anselm\_87, Benvolio\_85, BiancaTri92\_84, BobSwaget\_80, Crucio\_86, Dalmatian\_86, Deloris\_88, Dignity\_88, DudeLittle\_84, Echild\_89, EvilGenius\_86, Fameo\_84, FiringLine\_86, Georgie2\_88, Heffalump\_83, Iwokeuplikedis\_90, Jerm\_88, JoshKayV\_88, KingCyrus\_85, Leviathan\_88, LilTurb\_87, Lokk\_81, Miko\_81, NicoleTera\_85, NothingSpecial\_81, Power\_86, QueenB2\_83, QueenBeesly\_86, Rachaly\_83, Retro23\_86, Smeagan\_89, SnapTap\_86, TarsusIV\_85, Trooper\_86, Turbido\_87, Whabigail7\_85, XianYue\_85,

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

- 20ES\_88, AN3\_86, ArcherNM\_81, BengiVuitton\_88, CRB1\_87, Che12\_88, ChipMunk\_87, First\_0087, LadyBird\_90, Odin\_85, SemperFi\_86, SweetiePie\_86, Trixie\_86, VA6\_86,

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

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

Start 12:

- Found in 50 of 53 ( 94.3% ) of genes in pham
- Manual Annotations of this start: 11 of 50
- Called 28.0% of time when present
- Phage (with cluster) where this start called: 20ES\_88 (A2), AN3\_86 (A2), ArcherNM\_81 (A2), BengiVuitton\_88 (A2), CRB1\_87 (A2), Che12\_88 (A2), ChipMunk\_87 (A2), First\_0087 (A2), LadyBird\_90 (A2), Odin\_85 (A2), SemperFi\_86 (A2), SweetiePie\_86 (A2), Trixie\_86 (A2), VA6\_86 (A2),

Start 13:

- Found in 53 of 53 ( 100.0% ) of genes in pham
- Manual Annotations of this start: 39 of 50
- Called 73.6% of time when present
- Phage (with cluster) where this start called: AbbyPaige\_88 (A2), Agape74\_88 (A2), Anselm\_87 (A2), Benvolio\_85 (A2), BiancaTri92\_84 (A2), BobSwaget\_80 (A2), Crucio\_86 (A2), Dalmatian\_86 (A2), Deloris\_88 (A2), Dignity\_88 (A2), DudeLittle\_84 (A2), Echild\_89 (A2), EvilGenius\_86 (A2), Fameo\_84 (A2), FiringLine\_86 (A2), Georgie2\_88 (A2), Heffalump\_83 (A2), Iwokeuplikedis\_90 (A2), Jerm\_88 (A2), JoshKayV\_88 (A2), KingCyrus\_85 (A2), Leviathan\_88 (A2), LilTurb\_87 (A2), Lokk\_81 (A2), Miko\_81 (A2), NicoleTera\_85 (A2), NothingSpecial\_81 (A2), Power\_86 (A2), QueenB2\_83 (A2), QueenBeesly\_86 (A2), Rachaly\_83 (A2), Retro23\_86 (A2), Smeagan\_89 (A2), SnapTap\_86 (A2), TarsusIV\_85 (A2), Trooper\_86 (A2), Turbido\_87 (A2), Whabigail7\_85 (A2), XianYue\_85 (A2),

### **Summary by clusters:**

There is one cluster represented in this pham: A2

Info for manual annotations of cluster A2:

- Start number 12 was manually annotated 11 times for cluster A2.
- Start number 13 was manually annotated 39 times for cluster A2.

**Gene Information:**

Gene: 20ES\_88 Start: 48926, Stop: 48621, Start Num: 12

Candidate Starts for 20ES\_88:

(Start: 12 @48926 has 11 MA's), (Start: 13 @48911 has 39 MA's), (20, 48845), (25, 48803), (32, 48758), (37, 48653),

Gene: AN3\_86 Start: 47190, Stop: 46879, Start Num: 12

Candidate Starts for AN3\_86:

(Start: 12 @47190 has 11 MA's), (Start: 13 @47175 has 39 MA's), (16, 47130), (19, 47106), (25, 47061), (37, 46911),

Gene: AbbyPaige\_88 Start: 49174, Stop: 48878, Start Num: 13

Candidate Starts for AbbyPaige\_88:

(6, 49324), (Start: 12 @49189 has 11 MA's), (Start: 13 @49174 has 39 MA's), (19, 49105), (25, 49060), (32, 49015), (33, 49006),

Gene: Agape74\_88 Start: 49150, Stop: 48854, Start Num: 13

Candidate Starts for Agape74\_88:

(6, 49300), (Start: 12 @49165 has 11 MA's), (Start: 13 @49150 has 39 MA's), (19, 49081), (25, 49036), (32, 48991), (33, 48982),

Gene: Anselm\_87 Start: 49020, Stop: 48757, Start Num: 13

Candidate Starts for Anselm\_87:

(Start: 12 @49035 has 11 MA's), (Start: 13 @49020 has 39 MA's), (16, 48975), (19, 48951),

Gene: ArcherNM\_81 Start: 48470, Stop: 48147, Start Num: 12

Candidate Starts for ArcherNM\_81:

(9, 48590), (Start: 12 @48470 has 11 MA's), (Start: 13 @48455 has 39 MA's), (18, 48395), (19, 48386), (27, 48314), (32, 48263),

Gene: BengiVuitton\_88 Start: 49031, Stop: 48726, Start Num: 12

Candidate Starts for BengiVuitton\_88:

(Start: 12 @49031 has 11 MA's), (Start: 13 @49016 has 39 MA's), (20, 48950), (25, 48908), (37, 48758),

Gene: Benvolio\_85 Start: 48794, Stop: 48495, Start Num: 13

Candidate Starts for Benvolio\_85:

(7, 48935), (Start: 12 @48809 has 11 MA's), (Start: 13 @48794 has 39 MA's), (15, 48755), (19, 48725), (25, 48677), (38, 48524),

Gene: BiancaTri92\_84 Start: 48631, Stop: 48332, Start Num: 13

Candidate Starts for BiancaTri92\_84:

(11, 48709), (Start: 12 @48646 has 11 MA's), (Start: 13 @48631 has 39 MA's), (15, 48592), (16, 48586), (19, 48562), (20, 48553), (38, 48361),

Gene: BobSwaget\_80 Start: 46489, Stop: 46259, Start Num: 13

Candidate Starts for BobSwaget\_80:

(Start: 12 @46504 has 11 MA's), (Start: 13 @46489 has 39 MA's), (23, 46426),

Gene: CRB1\_87 Start: 49179, Stop: 48874, Start Num: 12

Candidate Starts for CRB1\_87:

(Start: 12 @49179 has 11 MA's), (Start: 13 @49164 has 39 MA's), (20, 49098), (25, 49056), (37, 48906),

Gene: Che12\_88 Start: 47719, Stop: 47462, Start Num: 12

Candidate Starts for Che12\_88:

(Start: 12 @47719 has 11 MA's), (Start: 13 @47704 has 39 MA's), (20, 47650), (24, 47626), (28, 47605), (35, 47539),

Gene: ChipMunk\_87 Start: 50092, Stop: 49781, Start Num: 12

Candidate Starts for ChipMunk\_87:

(Start: 12 @50092 has 11 MA's), (Start: 13 @50077 has 39 MA's), (19, 50008), (25, 49963), (32, 49918),

Gene: Crucio\_86 Start: 49024, Stop: 48728, Start Num: 13

Candidate Starts for Crucio\_86:

(7, 49168), (Start: 12 @49039 has 11 MA's), (Start: 13 @49024 has 39 MA's), (19, 48955), (25, 48910), (32, 48865), (38, 48757),

Gene: Dalmatian\_86 Start: 48805, Stop: 48542, Start Num: 13

Candidate Starts for Dalmatian\_86:

(10, 48901), (Start: 12 @48820 has 11 MA's), (Start: 13 @48805 has 39 MA's), (19, 48736),

Gene: Deloris\_88 Start: 48709, Stop: 48419, Start Num: 13

Candidate Starts for Deloris\_88:

(Start: 12 @48724 has 11 MA's), (Start: 13 @48709 has 39 MA's), (20, 48643), (25, 48601), (37, 48451),

Gene: Dignity\_88 Start: 49257, Stop: 48961, Start Num: 13

Candidate Starts for Dignity\_88:

(6, 49407), (Start: 12 @49272 has 11 MA's), (Start: 13 @49257 has 39 MA's), (19, 49188), (25, 49143), (32, 49098), (33, 49089),

Gene: DudeLittle\_84 Start: 48523, Stop: 48260, Start Num: 13

Candidate Starts for DudeLittle\_84:

(10, 48619), (Start: 12 @48538 has 11 MA's), (Start: 13 @48523 has 39 MA's), (19, 48454),

Gene: Echild\_89 Start: 48818, Stop: 48519, Start Num: 13

Candidate Starts for Echild\_89:

(7, 48959), (Start: 12 @48833 has 11 MA's), (Start: 13 @48818 has 39 MA's), (15, 48779), (19, 48749), (25, 48701), (38, 48548),

Gene: EvilGenius\_86 Start: 50078, Stop: 49782, Start Num: 13

Candidate Starts for EvilGenius\_86:

(Start: 12 @50093 has 11 MA's), (Start: 13 @50078 has 39 MA's), (19, 50009), (25, 49964), (32, 49919),

Gene: Fameo\_84 Start: 48576, Stop: 48280, Start Num: 13

Candidate Starts for Fameo\_84:

(10, 48672), (Start: 12 @48591 has 11 MA's), (Start: 13 @48576 has 39 MA's), (19, 48507), (25, 48462), (32, 48417), (38, 48309),

Gene: FiringLine\_86 Start: 48964, Stop: 48668, Start Num: 13

Candidate Starts for FiringLine\_86:

(Start: 12 @48979 has 11 MA's), (Start: 13 @48964 has 39 MA's), (19, 48895), (25, 48850), (32, 48805), (38, 48697),

Gene: First\_0087 Start: 48829, Stop: 48521, Start Num: 12

Candidate Starts for First\_0087:

(Start: 12 @48829 has 11 MA's), (Start: 13 @48814 has 39 MA's), (20, 48748), (25, 48706), (37, 48553),

Gene: Georgie2\_88 Start: 49168, Stop: 48872, Start Num: 13

Candidate Starts for Georgie2\_88:

(7, 49312), (Start: 12 @49183 has 11 MA's), (Start: 13 @49168 has 39 MA's), (19, 49099), (25, 49054), (32, 49009), (38, 48901),

Gene: Heffalump\_83 Start: 49044, Stop: 48748, Start Num: 13

Candidate Starts for Heffalump\_83:

(10, 49140), (Start: 12 @49059 has 11 MA's), (Start: 13 @49044 has 39 MA's), (19, 48975), (25, 48930), (32, 48885), (38, 48777),

Gene: Iwokeuplikedis\_90 Start: 49128, Stop: 48847, Start Num: 13

Candidate Starts for Iwokeuplikedis\_90:

(Start: 13 @49128 has 39 MA's), (17, 49092), (20, 49065), (22, 49044), (26, 49017), (31, 48993), (36, 48942),

Gene: Jerm\_88 Start: 49225, Stop: 48929, Start Num: 13

Candidate Starts for Jerm\_88:

(6, 49375), (Start: 12 @49240 has 11 MA's), (Start: 13 @49225 has 39 MA's), (19, 49156), (25, 49111), (32, 49066), (33, 49057),

Gene: JoshKayV\_88 Start: 49393, Stop: 49097, Start Num: 13

Candidate Starts for JoshKayV\_88:

(Start: 13 @49393 has 39 MA's), (19, 49324), (25, 49279), (33, 49225), (37, 49129),

Gene: KingCyrus\_85 Start: 50091, Stop: 49795, Start Num: 13

Candidate Starts for KingCyrus\_85:

(Start: 12 @50106 has 11 MA's), (Start: 13 @50091 has 39 MA's), (19, 50022), (25, 49977), (32, 49932),

Gene: LadyBird\_90 Start: 49324, Stop: 49019, Start Num: 12

Candidate Starts for LadyBird\_90:

(Start: 12 @49324 has 11 MA's), (Start: 13 @49309 has 39 MA's), (20, 49243), (25, 49201), (32, 49156), (37, 49051),

Gene: Leviathan\_88 Start: 49306, Stop: 49010, Start Num: 13

Candidate Starts for Leviathan\_88:

(6, 49456), (Start: 12 @49321 has 11 MA's), (Start: 13 @49306 has 39 MA's), (19, 49237), (21, 49222), (25, 49192), (32, 49147), (33, 49138),

Gene: LilTurb\_87 Start: 49102, Stop: 48806, Start Num: 13

Candidate Starts for LilTurb\_87:

(6, 49252), (Start: 12 @49117 has 11 MA's), (Start: 13 @49102 has 39 MA's), (19, 49033), (25, 48988), (32, 48943), (33, 48934),

Gene: Lokk\_81 Start: 47110, Stop: 46880, Start Num: 13

Candidate Starts for Lokk\_81:

(5, 47272), (Start: 12 @47125 has 11 MA's), (Start: 13 @47110 has 39 MA's), (23, 47047),

Gene: Miko\_81 Start: 47875, Stop: 47645, Start Num: 13

Candidate Starts for Miko\_81:

(Start: 12 @47890 has 11 MA's), (Start: 13 @47875 has 39 MA's), (23, 47812),

Gene: NicoleTera\_85 Start: 48705, Stop: 48442, Start Num: 13

Candidate Starts for NicoleTera\_85:

(9, 48834), (Start: 12 @48720 has 11 MA's), (Start: 13 @48705 has 39 MA's), (15, 48666), (19, 48636), (20, 48627),

Gene: NothingSpecial\_81 Start: 48512, Stop: 48231, Start Num: 13

Candidate Starts for NothingSpecial\_81:

(2, 48719), (Start: 13 @48512 has 39 MA's), (15, 48473), (16, 48467), (19, 48443), (25, 48395), (34, 48332),

Gene: Odin\_85 Start: 48071, Stop: 47814, Start Num: 12

Candidate Starts for Odin\_85:

(Start: 12 @48071 has 11 MA's), (Start: 13 @48056 has 39 MA's), (28, 47957),

Gene: Power\_86 Start: 49167, Stop: 48871, Start Num: 13

Candidate Starts for Power\_86:

(7, 49311), (Start: 12 @49182 has 11 MA's), (Start: 13 @49167 has 39 MA's), (19, 49098), (25, 49053), (32, 49008), (38, 48900),

Gene: QueenB2\_83 Start: 48257, Stop: 47961, Start Num: 13

Candidate Starts for QueenB2\_83:

(7, 48401), (Start: 12 @48272 has 11 MA's), (Start: 13 @48257 has 39 MA's), (19, 48188), (25, 48143), (32, 48098), (38, 47990),

Gene: QueenBeesly\_86 Start: 48964, Stop: 48668, Start Num: 13

Candidate Starts for QueenBeesly\_86:

(Start: 12 @48979 has 11 MA's), (Start: 13 @48964 has 39 MA's), (19, 48895), (25, 48850), (32, 48805), (38, 48697),

Gene: Rachaly\_83 Start: 48018, Stop: 47788, Start Num: 13

Candidate Starts for Rachaly\_83:

(Start: 12 @48033 has 11 MA's), (Start: 13 @48018 has 39 MA's), (23, 47955),

Gene: Retro23\_86 Start: 48647, Stop: 48384, Start Num: 13

Candidate Starts for Retro23\_86:

(10, 48743), (Start: 12 @48662 has 11 MA's), (Start: 13 @48647 has 39 MA's), (16, 48602), (19, 48578),

Gene: SemperFi\_86 Start: 48867, Stop: 48556, Start Num: 12

Candidate Starts for SemperFi\_86:

(Start: 12 @48867 has 11 MA's), (Start: 13 @48852 has 39 MA's), (19, 48783), (25, 48738), (32, 48693), (38, 48585),

Gene: Smeagan\_89 Start: 49397, Stop: 49101, Start Num: 13

Candidate Starts for Smeagan\_89:

(6, 49547), (Start: 12 @49412 has 11 MA's), (Start: 13 @49397 has 39 MA's), (19, 49328), (25, 49283), (33, 49229),

Gene: SnapTap\_86 Start: 48823, Stop: 48527, Start Num: 13

Candidate Starts for SnapTap\_86:

(7, 48967), (Start: 12 @48838 has 11 MA's), (Start: 13 @48823 has 39 MA's), (19, 48754), (25, 48709), (32, 48664), (38, 48556),

Gene: SweetiePie\_86 Start: 48971, Stop: 48660, Start Num: 12

Candidate Starts for SweetiePie\_86:

(7, 49100), (Start: 12 @48971 has 11 MA's), (Start: 13 @48956 has 39 MA's), (19, 48887), (25, 48842), (32, 48797), (38, 48689),

Gene: TarsusIV\_85 Start: 48814, Stop: 48545, Start Num: 13

Candidate Starts for TarsusIV\_85:

(4, 48976), (Start: 12 @48829 has 11 MA's), (Start: 13 @48814 has 39 MA's), (15, 48775), (19, 48745),

Gene: Trixie\_86 Start: 49391, Stop: 49113, Start Num: 12

Candidate Starts for Trixie\_86:

(3, 49589), (Start: 12 @49391 has 11 MA's), (Start: 13 @49376 has 39 MA's), (14, 49361), (20, 49313), (28, 49253), (29, 49244), (30, 49241), (36, 49181),

Gene: Trooper\_86 Start: 48532, Stop: 48263, Start Num: 13

Candidate Starts for Trooper\_86:

(1, 48766), (8, 48667), (Start: 12 @48547 has 11 MA's), (Start: 13 @48532 has 39 MA's), (16, 48487), (19, 48463),

Gene: Turbido\_87 Start: 49118, Stop: 48822, Start Num: 13

Candidate Starts for Turbido\_87:

(6, 49268), (Start: 12 @49133 has 11 MA's), (Start: 13 @49118 has 39 MA's), (19, 49049), (25, 49004), (32, 48959), (33, 48950),

Gene: VA6\_86 Start: 48761, Stop: 48450, Start Num: 12

Candidate Starts for VA6\_86:

(Start: 12 @48761 has 11 MA's), (Start: 13 @48746 has 39 MA's), (16, 48701), (19, 48677), (25, 48632), (37, 48482),

Gene: Whabigail7\_85 Start: 49116, Stop: 48820, Start Num: 13

Candidate Starts for Whabigail7\_85:

(6, 49266), (Start: 12 @49131 has 11 MA's), (Start: 13 @49116 has 39 MA's), (19, 49047), (25, 49002), (32, 48957), (33, 48948),

Gene: XianYue\_85 Start: 48882, Stop: 48607, Start Num: 13

Candidate Starts for XianYue\_85:

(10, 48981), (Start: 12 @48897 has 11 MA's), (Start: 13 @48882 has 39 MA's), (19, 48837), (25, 48789),