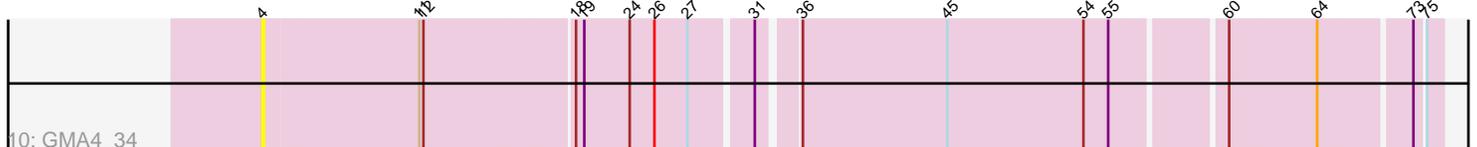
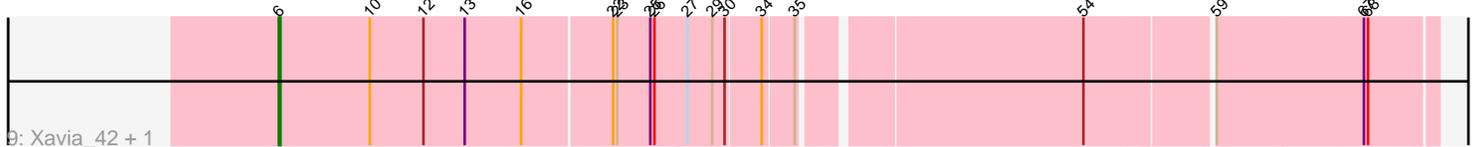
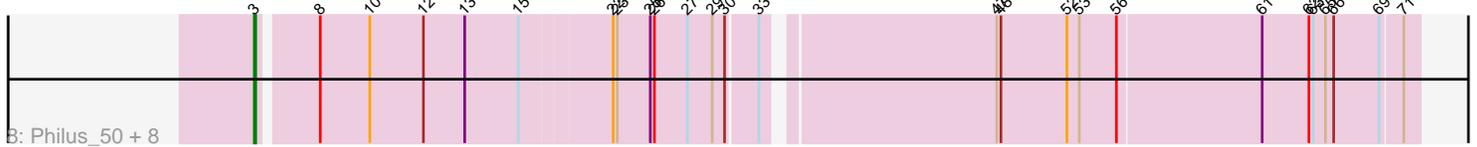
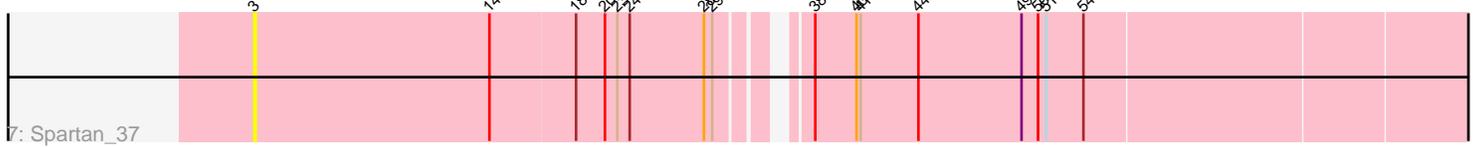
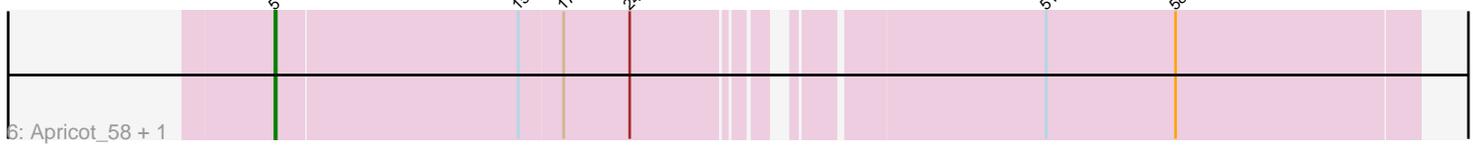
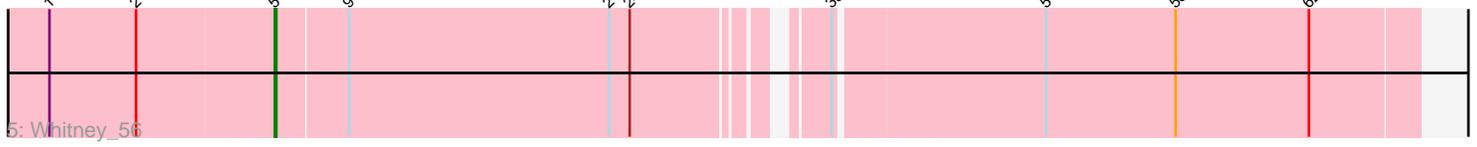
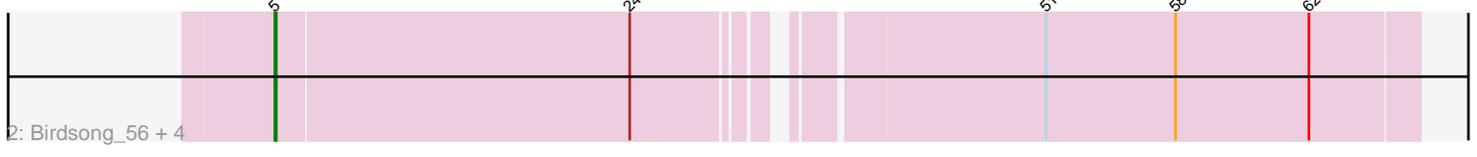
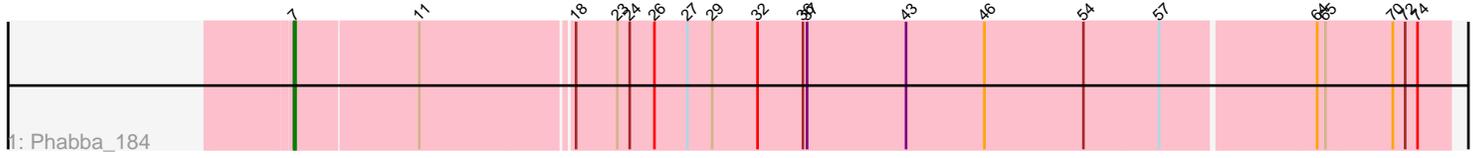


# Pham 291504



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 291504 Report

This analysis was run 03/28/26 on database version 641.

Pham number 291504 has 24 members, 2 are drafts.

Phages represented in each track:

- Track 1 : Phabba\_184
- Track 2 : Birdsong\_56, Asapag\_56, Kenna\_56, Lutum\_61, Getalong\_59
- Track 3 : Budski\_63
- Track 4 : BotCity\_59
- Track 5 : Whitney\_56
- Track 6 : Apricot\_58, Crater\_58
- Track 7 : Spartan\_37
- Track 8 : Philus\_50, Saal\_49, BobaPhett\_49, Mattes\_50, Gorge\_51, ByChance\_37, James\_50, SwagPigglett\_52, DRBy19\_49
- Track 9 : Xavia\_42, Tortellini\_40
- Track 10 : GMA4\_34

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

The start number called the most often in the published annotations is 5, it was called in 10 of the 22 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Apricot\_58, Asapag\_56, Birdsong\_56, BotCity\_59, Budski\_63, Crater\_58, Getalong\_59, Kenna\_56, Lutum\_61, Whitney\_56,

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

- 

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

- BobaPhett\_49, ByChance\_37, DRBy19\_49, GMA4\_34, Gorge\_51, James\_50, Mattes\_50, Phabba\_184, Philus\_50, Saal\_49, Spartan\_37, SwagPigglett\_52, Tortellini\_40, Xavia\_42,

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

Start 3:

- Found in 10 of 24 ( 41.7% ) of genes in pham
- Manual Annotations of this start: 9 of 22

- Called 100.0% of time when present
- Phage (with cluster) where this start called: BobaPhett\_49 (F1), ByChance\_37 (F1), DRBy19\_49 (F1), Gorge\_51 (F1), James\_50 (F1), Mattes\_50 (F1), Philus\_50 (F1), Saal\_49 (F1), Spartan\_37 (ES), SwagPiggett\_52 (F1),

Start 4:

- Found in 1 of 24 ( 4.2% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: GMA4\_34 (singleton),

Start 5:

- Found in 10 of 24 ( 41.7% ) of genes in pham
- Manual Annotations of this start: 10 of 22
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Apricot\_58 (DN3), Asapag\_56 (DN1), Birdsong\_56 (DN), BotCity\_59 (DN), Budski\_63 (DN), Crater\_58 (DN3), Getalong\_59 (DN1), Kenna\_56 (DN1), Lutum\_61 (DN1), Whitney\_56 (DN1),

Start 6:

- Found in 2 of 24 ( 8.3% ) of genes in pham
- Manual Annotations of this start: 2 of 22
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Tortellini\_40 (P2), Xavia\_42 (P3),

Start 7:

- Found in 1 of 24 ( 4.2% ) of genes in pham
- Manual Annotations of this start: 1 of 22
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Phabba\_184 (C2),

### **Summary by clusters:**

There are 9 clusters represented in this pham: DN, F1, singleton, P3, P2, DN1, DN3, C2, ES,

Info for manual annotations of cluster C2:

- Start number 7 was manually annotated 1 time for cluster C2.

Info for manual annotations of cluster DN:

- Start number 5 was manually annotated 3 times for cluster DN.

Info for manual annotations of cluster DN1:

- Start number 5 was manually annotated 5 times for cluster DN1.

Info for manual annotations of cluster DN3:

- Start number 5 was manually annotated 2 times for cluster DN3.

Info for manual annotations of cluster F1:

- Start number 3 was manually annotated 9 times for cluster F1.

Info for manual annotations of cluster P2:

- Start number 6 was manually annotated 1 time for cluster P2.

Info for manual annotations of cluster P3:

- Start number 6 was manually annotated 1 time for cluster P3.

### **Gene Information:**

Gene: Apricot\_58 Start: 37168, Stop: 37944, Start Num: 5

Candidate Starts for Apricot\_58:

(Start: 5 @37168 has 10 MA's), (15, 37342), (17, 37372), (24, 37420), (51, 37678), (58, 37771),

Gene: Asapag\_56 Start: 36674, Stop: 37453, Start Num: 5

Candidate Starts for Asapag\_56:

(Start: 5 @36674 has 10 MA's), (24, 36929), (51, 37187), (58, 37280), (62, 37376),

Gene: Birdsong\_56 Start: 36895, Stop: 37674, Start Num: 5

Candidate Starts for Birdsong\_56:

(Start: 5 @36895 has 10 MA's), (24, 37150), (51, 37408), (58, 37501), (62, 37597),

Gene: BobaPhett\_49 Start: 36795, Stop: 37598, Start Num: 3

Candidate Starts for BobaPhett\_49:

(Start: 3 @36795 has 9 MA's), (8, 36834), (10, 36870), (12, 36909), (13, 36939), (15, 36978), (22, 37041), (23, 37044), (25, 37068), (26, 37071), (27, 37095), (29, 37113), (30, 37122), (33, 37143), (47, 37299), (48, 37302), (52, 37350), (53, 37359), (56, 37386), (61, 37488), (62, 37521), (63, 37524), (65, 37533), (66, 37539), (69, 37572), (71, 37587),

Gene: BotCity\_59 Start: 38122, Stop: 38898, Start Num: 5

Candidate Starts for BotCity\_59:

(Start: 5 @38122 has 10 MA's), (11, 38224), (17, 38326), (24, 38374), (51, 38632), (58, 38725), (62, 38821),

Gene: Budski\_63 Start: 39082, Stop: 39861, Start Num: 5

Candidate Starts for Budski\_63:

(Start: 5 @39082 has 10 MA's), (24, 39337), (39, 39451), (42, 39472), (51, 39595), (58, 39688), (62, 39784),

Gene: ByChance\_37 Start: 29879, Stop: 30682, Start Num: 3

Candidate Starts for ByChance\_37:

(Start: 3 @29879 has 9 MA's), (8, 29918), (10, 29954), (12, 29993), (13, 30023), (15, 30062), (22, 30125), (23, 30128), (25, 30152), (26, 30155), (27, 30179), (29, 30197), (30, 30206), (33, 30227), (47, 30383), (48, 30386), (52, 30434), (53, 30443), (56, 30470), (61, 30572), (62, 30605), (63, 30608), (65, 30617), (66, 30623), (69, 30656), (71, 30671),

Gene: Crater\_58 Start: 37563, Stop: 38339, Start Num: 5

Candidate Starts for Crater\_58:

(Start: 5 @37563 has 10 MA's), (15, 37737), (17, 37767), (24, 37815), (51, 38073), (58, 38166),

Gene: DRBy19\_49 Start: 35582, Stop: 36385, Start Num: 3

Candidate Starts for DRBy19\_49:

(Start: 3 @35582 has 9 MA's), (8, 35621), (10, 35657), (12, 35696), (13, 35726), (15, 35765), (22, 35828), (23, 35831), (25, 35855), (26, 35858), (27, 35882), (29, 35900), (30, 35909), (33, 35930), (47,

36086), (48, 36089), (52, 36137), (53, 36146), (56, 36173), (61, 36275), (62, 36308), (63, 36311), (65, 36320), (66, 36326), (69, 36359), (71, 36374),

Gene: GMA4\_34 Start: 28046, Stop: 28852, Start Num: 4

Candidate Starts for GMA4\_34:

(4, 28046), (11, 28157), (12, 28160), (18, 28265), (19, 28271), (24, 28304), (26, 28322), (27, 28346), (31, 28388), (36, 28412), (45, 28517), (54, 28616), (55, 28634), (60, 28709), (64, 28772), (73, 28835), (75, 28841),

Gene: Getalong\_59 Start: 38926, Stop: 39705, Start Num: 5

Candidate Starts for Getalong\_59:

(Start: 5 @38926 has 10 MA's), (24, 39181), (51, 39439), (58, 39532), (62, 39628),

Gene: Gorge\_51 Start: 35716, Stop: 36519, Start Num: 3

Candidate Starts for Gorge\_51:

(Start: 3 @35716 has 9 MA's), (8, 35755), (10, 35791), (12, 35830), (13, 35860), (15, 35899), (22, 35962), (23, 35965), (25, 35989), (26, 35992), (27, 36016), (29, 36034), (30, 36043), (33, 36064), (47, 36220), (48, 36223), (52, 36271), (53, 36280), (56, 36307), (61, 36409), (62, 36442), (63, 36445), (65, 36454), (66, 36460), (69, 36493), (71, 36508),

Gene: James\_50 Start: 35673, Stop: 36476, Start Num: 3

Candidate Starts for James\_50:

(Start: 3 @35673 has 9 MA's), (8, 35712), (10, 35748), (12, 35787), (13, 35817), (15, 35856), (22, 35919), (23, 35922), (25, 35946), (26, 35949), (27, 35973), (29, 35991), (30, 36000), (33, 36021), (47, 36177), (48, 36180), (52, 36228), (53, 36237), (56, 36264), (61, 36366), (62, 36399), (63, 36402), (65, 36411), (66, 36417), (69, 36450), (71, 36465),

Gene: Kenna\_56 Start: 37127, Stop: 37906, Start Num: 5

Candidate Starts for Kenna\_56:

(Start: 5 @37127 has 10 MA's), (24, 37382), (51, 37640), (58, 37733), (62, 37829),

Gene: Lutum\_61 Start: 38291, Stop: 39070, Start Num: 5

Candidate Starts for Lutum\_61:

(Start: 5 @38291 has 10 MA's), (24, 38546), (51, 38804), (58, 38897), (62, 38993),

Gene: Mattes\_50 Start: 35673, Stop: 36476, Start Num: 3

Candidate Starts for Mattes\_50:

(Start: 3 @35673 has 9 MA's), (8, 35712), (10, 35748), (12, 35787), (13, 35817), (15, 35856), (22, 35919), (23, 35922), (25, 35946), (26, 35949), (27, 35973), (29, 35991), (30, 36000), (33, 36021), (47, 36177), (48, 36180), (52, 36228), (53, 36237), (56, 36264), (61, 36366), (62, 36399), (63, 36402), (65, 36411), (66, 36417), (69, 36450), (71, 36465),

Gene: Phabba\_184 Start: 96671, Stop: 95853, Start Num: 7

Candidate Starts for Phabba\_184:

(Start: 7 @96671 has 1 MA's), (11, 96584), (18, 96479), (23, 96449), (24, 96440), (26, 96422), (27, 96398), (29, 96380), (32, 96347), (36, 96314), (37, 96311), (43, 96239), (46, 96182), (54, 96110), (57, 96056), (64, 95948), (65, 95942), (70, 95894), (72, 95885), (74, 95876),

Gene: Philus\_50 Start: 35558, Stop: 36361, Start Num: 3

Candidate Starts for Philus\_50:

(Start: 3 @35558 has 9 MA's), (8, 35597), (10, 35633), (12, 35672), (13, 35702), (15, 35741), (22, 35804), (23, 35807), (25, 35831), (26, 35834), (27, 35858), (29, 35876), (30, 35885), (33, 35906), (47, 36062), (48, 36065), (52, 36113), (53, 36122), (56, 36149), (61, 36251), (62, 36284), (63, 36287), (65,

36296), (66, 36302), (69, 36335), (71, 36350),

Gene: Saal\_49 Start: 35536, Stop: 36339, Start Num: 3

Candidate Starts for Saal\_49:

(Start: 3 @35536 has 9 MA's), (8, 35575), (10, 35611), (12, 35650), (13, 35680), (15, 35719), (22, 35782), (23, 35785), (25, 35809), (26, 35812), (27, 35836), (29, 35854), (30, 35863), (33, 35884), (47, 36040), (48, 36043), (52, 36091), (53, 36100), (56, 36127), (61, 36229), (62, 36262), (63, 36265), (65, 36274), (66, 36280), (69, 36313), (71, 36328),

Gene: Spartan\_37 Start: 33069, Stop: 33911, Start Num: 3

Candidate Starts for Spartan\_37:

(Start: 3 @33069 has 9 MA's), (14, 33240), (18, 33300), (20, 33321), (23, 33330), (24, 33339), (28, 33393), (29, 33399), (38, 33444), (40, 33474), (41, 33477), (44, 33519), (49, 33594), (50, 33606), (51, 33612), (54, 33639),

Gene: SwagPiggett\_52 Start: 36591, Stop: 37367, Start Num: 3

Candidate Starts for SwagPiggett\_52:

(Start: 3 @36591 has 9 MA's), (8, 36630), (10, 36666), (12, 36705), (13, 36735), (15, 36774), (22, 36810), (23, 36813), (25, 36837), (26, 36840), (27, 36864), (29, 36882), (30, 36891), (33, 36912), (47, 37068), (48, 37071), (52, 37119), (53, 37128), (56, 37155), (61, 37257), (62, 37290), (63, 37293), (65, 37302), (66, 37308), (69, 37341), (71, 37356),

Gene: Tortellini\_40 Start: 34462, Stop: 35259, Start Num: 6

Candidate Starts for Tortellini\_40:

(Start: 6 @34462 has 2 MA's), (10, 34528), (12, 34567), (13, 34597), (16, 34636), (22, 34699), (23, 34702), (25, 34726), (26, 34729), (27, 34753), (29, 34771), (30, 34780), (34, 34804), (35, 34825), (54, 35017), (59, 35104), (67, 35209), (68, 35212),

Gene: Whitney\_56 Start: 38733, Stop: 39512, Start Num: 5

Candidate Starts for Whitney\_56:

(1, 38580), (2, 38643), (Start: 5 @38733 has 10 MA's), (9, 38784), (21, 38973), (24, 38988), (39, 39102), (51, 39246), (58, 39339), (62, 39435),

Gene: Xavia\_42 Start: 35045, Stop: 35842, Start Num: 6

Candidate Starts for Xavia\_42:

(Start: 6 @35045 has 2 MA's), (10, 35111), (12, 35150), (13, 35180), (16, 35219), (22, 35282), (23, 35285), (25, 35309), (26, 35312), (27, 35336), (29, 35354), (30, 35363), (34, 35387), (35, 35408), (54, 35600), (59, 35687), (67, 35792), (68, 35795),