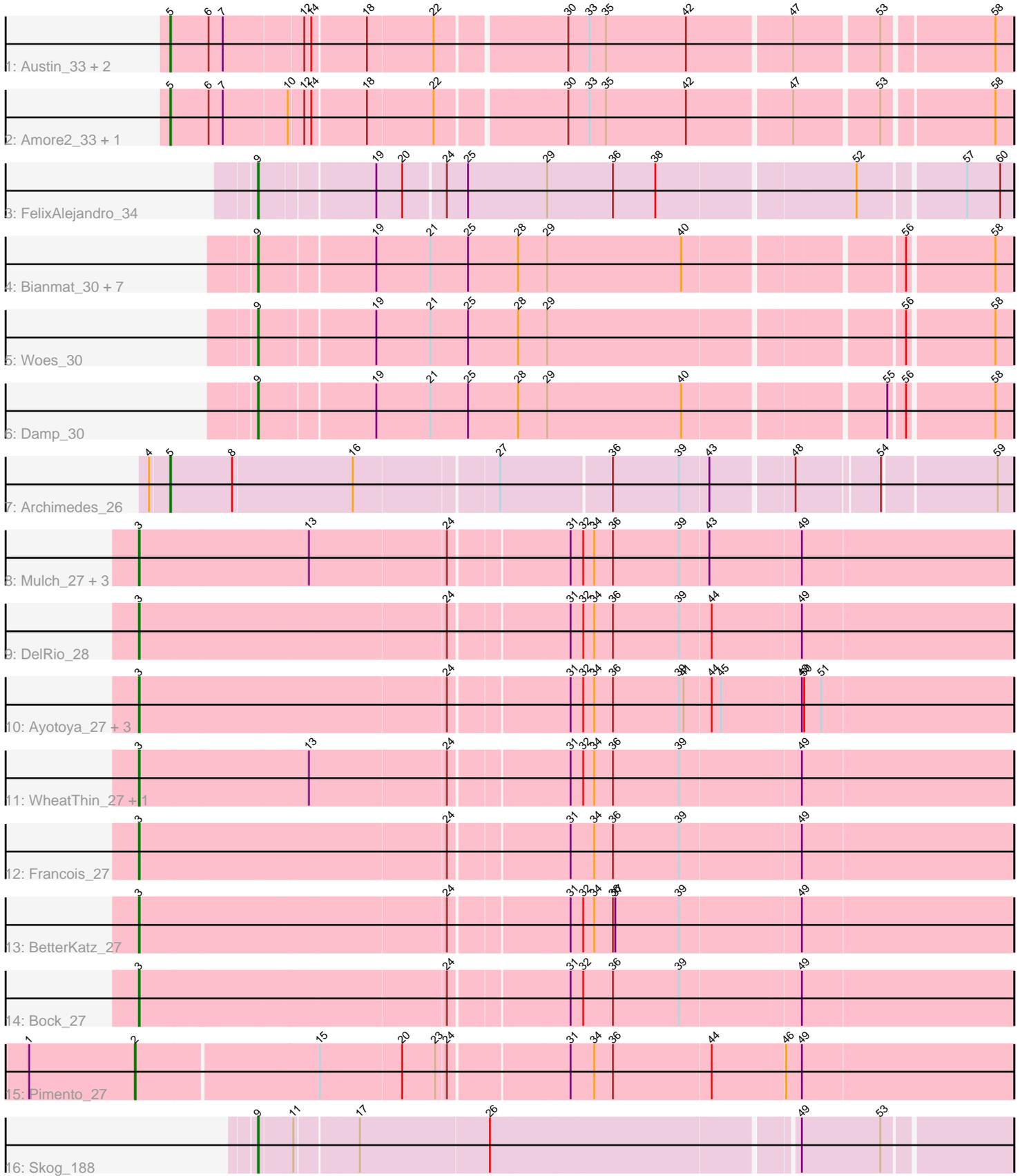


# Pham 291384



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 291384 Report

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

Pham number 291384 has 33 members, 2 are drafts.

Phages represented in each track:

- Track 1 : Austin\_33, GMA7\_23, HayZem\_32
- Track 2 : Amore2\_33, GTE7\_23
- Track 3 : FelixAlejandro\_34
- Track 4 : Bianmat\_30, Kaseim\_30, Minos\_31, Lidong\_30, Charianelly\_30, Shelley\_30, Berries\_30, MrWormie\_30
- Track 5 : Woes\_30
- Track 6 : Damp\_30
- Track 7 : Archimedes\_26
- Track 8 : Mulch\_27, NancyRae\_27, Brylie\_27, Parada\_27
- Track 9 : DelRio\_28
- Track 10 : Ayotoya\_27, GrandSlam\_27, Chop\_27, Hamood\_27
- Track 11 : WheatThin\_27, Nadeem\_27
- Track 12 : Francois\_27
- Track 13 : BetterKatz\_27
- Track 14 : Bock\_27
- Track 15 : Pimento\_27
- Track 16 : Skog\_188

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

The start number called the most often in the published annotations is 3, it was called in 14 of the 31 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Ayotoya\_27, BetterKatz\_27, Bock\_27, Brylie\_27, Chop\_27, DelRio\_28, Francois\_27, GrandSlam\_27, Hamood\_27, Mulch\_27, Nadeem\_27, NancyRae\_27, Parada\_27, WheatThin\_27,

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

- 

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

- Amore2\_33, Archimedes\_26, Austin\_33, Berries\_30, Bianmat\_30, Charianelly\_30, Damp\_30, FelixAlejandro\_34, GMA7\_23, GTE7\_23, HayZem\_32, Kaseim\_30,

Lidong\_30, Minos\_31, MrWormie\_30, Pimento\_27, Shelley\_30, Skog\_188, Woes\_30,

### Summary by start number:

#### Start 2:

- Found in 1 of 33 ( 3.0% ) of genes in pham
- Manual Annotations of this start: 1 of 31
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Pimento\_27 (DI),

#### Start 3:

- Found in 14 of 33 ( 42.4% ) of genes in pham
- Manual Annotations of this start: 14 of 31
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Ayotoya\_27 (DI), BetterKatz\_27 (DI), Bock\_27 (DI), Brylie\_27 (DI), Chop\_27 (DI), DelRio\_28 (DI), Francois\_27 (DI), GrandSlam\_27 (DI), Hamood\_27 (DI), Mulch\_27 (DI), Nadeem\_27 (DI), NancyRae\_27 (DI), Parada\_27 (DI), WheatThin\_27 (DI),

#### Start 5:

- Found in 6 of 33 ( 18.2% ) of genes in pham
- Manual Annotations of this start: 4 of 31
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Amore2\_33 (CS1), Archimedes\_26 (DA), Austin\_33 (CS1), GMA7\_23 (CS1), GTE7\_23 (CS1), HayZem\_32 (CS1),

#### Start 9:

- Found in 12 of 33 ( 36.4% ) of genes in pham
- Manual Annotations of this start: 12 of 31
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Berries\_30 (CS3), Bianmat\_30 (CS3), Charianelly\_30 (CS3), Damp\_30 (CS3), FelixAlejandro\_34 (CS2), Kaseim\_30 (CS3), Lidong\_30 (CS3), Minos\_31 (CS3), MrWormie\_30 (CS3), Shelley\_30 (CS3), Skog\_188 (DO), Woes\_30 (CS3),

### Summary by clusters:

There are 6 clusters represented in this pham: DO, DI, DA, CS1, CS3, CS2,

#### Info for manual annotations of cluster CS1:

- Start number 5 was manually annotated 3 times for cluster CS1.

#### Info for manual annotations of cluster CS2:

- Start number 9 was manually annotated 1 time for cluster CS2.

#### Info for manual annotations of cluster CS3:

- Start number 9 was manually annotated 10 times for cluster CS3.

#### Info for manual annotations of cluster DA:

- Start number 5 was manually annotated 1 time for cluster DA.

#### Info for manual annotations of cluster DI:

- Start number 2 was manually annotated 1 time for cluster DI.

•Start number 3 was manually annotated 14 times for cluster DI.

Info for manual annotations of cluster DO:

•Start number 9 was manually annotated 1 time for cluster DO.

**Gene Information:**

Gene: Amore2\_33 Start: 36453, Stop: 37457, Start Num: 5

Candidate Starts for Amore2\_33:

(Start: 5 @36453 has 4 MA's), (6, 36501), (7, 36519), (10, 36597), (12, 36615), (14, 36624), (18, 36690), (22, 36771), (30, 36924), (33, 36951), (35, 36972), (42, 37074), (47, 37200), (53, 37302), (58, 37434),

Gene: Archimedes\_26 Start: 23367, Stop: 24368, Start Num: 5

Candidate Starts for Archimedes\_26:

(4, 23343), (Start: 5 @23367 has 4 MA's), (8, 23445), (16, 23595), (27, 23766), (36, 23898), (39, 23982), (43, 24018), (48, 24114), (54, 24213), (59, 24348),

Gene: Austin\_33 Start: 36453, Stop: 37457, Start Num: 5

Candidate Starts for Austin\_33:

(Start: 5 @36453 has 4 MA's), (6, 36501), (7, 36519), (12, 36615), (14, 36624), (18, 36690), (22, 36771), (30, 36924), (33, 36951), (35, 36972), (42, 37074), (47, 37200), (53, 37302), (58, 37434),

Gene: Ayotoya\_27 Start: 24101, Stop: 25168, Start Num: 3

Candidate Starts for Ayotoya\_27:

(Start: 3 @24101 has 14 MA's), (24, 24479), (31, 24620), (32, 24635), (34, 24647), (36, 24671), (39, 24755), (41, 24761), (44, 24794), (45, 24806), (49, 24902), (50, 24905), (51, 24926),

Gene: Berries\_30 Start: 38356, Stop: 39258, Start Num: 9

Candidate Starts for Berries\_30:

(Start: 9 @38356 has 12 MA's), (19, 38494), (21, 38563), (25, 38611), (28, 38674), (29, 38710), (40, 38878), (56, 39130), (58, 39235),

Gene: BetterKatz\_27 Start: 23574, Stop: 24641, Start Num: 3

Candidate Starts for BetterKatz\_27:

(Start: 3 @23574 has 14 MA's), (24, 23952), (31, 24093), (32, 24108), (34, 24120), (36, 24144), (37, 24147), (39, 24228), (49, 24375),

Gene: Bianmat\_30 Start: 38396, Stop: 39298, Start Num: 9

Candidate Starts for Bianmat\_30:

(Start: 9 @38396 has 12 MA's), (19, 38534), (21, 38603), (25, 38651), (28, 38714), (29, 38750), (40, 38918), (56, 39170), (58, 39275),

Gene: Bock\_27 Start: 23324, Stop: 24391, Start Num: 3

Candidate Starts for Bock\_27:

(Start: 3 @23324 has 14 MA's), (24, 23702), (31, 23843), (32, 23858), (36, 23894), (39, 23978), (49, 24125),

Gene: Brylie\_27 Start: 23315, Stop: 24382, Start Num: 3

Candidate Starts for Brylie\_27:

(Start: 3 @23315 has 14 MA's), (13, 23525), (24, 23693), (31, 23834), (32, 23849), (34, 23861), (36, 23885), (39, 23969), (43, 24005), (49, 24116),

Gene: Charianelly\_30 Start: 38106, Stop: 39008, Start Num: 9

Candidate Starts for Charianelly\_30:

(Start: 9 @38106 has 12 MA's), (19, 38244), (21, 38313), (25, 38361), (28, 38424), (29, 38460), (40, 38628), (56, 38880), (58, 38985),

Gene: Chop\_27 Start: 23849, Stop: 24916, Start Num: 3

Candidate Starts for Chop\_27:

(Start: 3 @23849 has 14 MA's), (24, 24227), (31, 24368), (32, 24383), (34, 24395), (36, 24419), (39, 24503), (41, 24509), (44, 24542), (45, 24554), (49, 24650), (50, 24653), (51, 24674),

Gene: Damp\_30 Start: 37270, Stop: 38172, Start Num: 9

Candidate Starts for Damp\_30:

(Start: 9 @37270 has 12 MA's), (19, 37408), (21, 37477), (25, 37525), (28, 37588), (29, 37624), (40, 37792), (55, 38026), (56, 38044), (58, 38149),

Gene: DelRio\_28 Start: 24323, Stop: 25387, Start Num: 3

Candidate Starts for DelRio\_28:

(Start: 3 @24323 has 14 MA's), (24, 24701), (31, 24842), (32, 24854), (34, 24866), (36, 24890), (39, 24974), (44, 25013), (49, 25121),

Gene: FelixAlejandro\_34 Start: 38037, Stop: 38939, Start Num: 9

Candidate Starts for FelixAlejandro\_34:

(Start: 9 @38037 has 12 MA's), (19, 38172), (20, 38205), (24, 38256), (25, 38283), (29, 38382), (36, 38463), (38, 38517), (52, 38754), (57, 38880), (60, 38922),

Gene: Francois\_27 Start: 23338, Stop: 24405, Start Num: 3

Candidate Starts for Francois\_27:

(Start: 3 @23338 has 14 MA's), (24, 23716), (31, 23857), (34, 23884), (36, 23908), (39, 23992), (49, 24139),

Gene: GMA7\_23 Start: 30667, Stop: 31671, Start Num: 5

Candidate Starts for GMA7\_23:

(Start: 5 @30667 has 4 MA's), (6, 30715), (7, 30733), (12, 30829), (14, 30838), (18, 30904), (22, 30985), (30, 31138), (33, 31165), (35, 31186), (42, 31288), (47, 31414), (53, 31516), (58, 31648),

Gene: GTE7\_23 Start: 30698, Stop: 31702, Start Num: 5

Candidate Starts for GTE7\_23:

(Start: 5 @30698 has 4 MA's), (6, 30746), (7, 30764), (10, 30842), (12, 30860), (14, 30869), (18, 30935), (22, 31016), (30, 31169), (33, 31196), (35, 31217), (42, 31319), (47, 31445), (53, 31547), (58, 31679),

Gene: GrandSlam\_27 Start: 23849, Stop: 24916, Start Num: 3

Candidate Starts for GrandSlam\_27:

(Start: 3 @23849 has 14 MA's), (24, 24227), (31, 24368), (32, 24383), (34, 24395), (36, 24419), (39, 24503), (41, 24509), (44, 24542), (45, 24554), (49, 24650), (50, 24653), (51, 24674),

Gene: Hamood\_27 Start: 23849, Stop: 24916, Start Num: 3

Candidate Starts for Hamood\_27:

(Start: 3 @23849 has 14 MA's), (24, 24227), (31, 24368), (32, 24383), (34, 24395), (36, 24419), (39, 24503), (41, 24509), (44, 24542), (45, 24554), (49, 24650), (50, 24653), (51, 24674),

Gene: HayZem\_32 Start: 36450, Stop: 37454, Start Num: 5

Candidate Starts for HayZem\_32:

(Start: 5 @36450 has 4 MA's), (6, 36498), (7, 36516), (12, 36612), (14, 36621), (18, 36687), (22, 36768), (30, 36921), (33, 36948), (35, 36969), (42, 37071), (47, 37197), (53, 37299), (58, 37431),

Gene: Kaseim\_30 Start: 37541, Stop: 38443, Start Num: 9

Candidate Starts for Kaseim\_30:

(Start: 9 @37541 has 12 MA's), (19, 37679), (21, 37748), (25, 37796), (28, 37859), (29, 37895), (40, 38063), (56, 38315), (58, 38420),

Gene: Lidong\_30 Start: 38356, Stop: 39258, Start Num: 9

Candidate Starts for Lidong\_30:

(Start: 9 @38356 has 12 MA's), (19, 38494), (21, 38563), (25, 38611), (28, 38674), (29, 38710), (40, 38878), (56, 39130), (58, 39235),

Gene: Minos\_31 Start: 38098, Stop: 39000, Start Num: 9

Candidate Starts for Minos\_31:

(Start: 9 @38098 has 12 MA's), (19, 38236), (21, 38305), (25, 38353), (28, 38416), (29, 38452), (40, 38620), (56, 38872), (58, 38977),

Gene: MrWormie\_30 Start: 37259, Stop: 38161, Start Num: 9

Candidate Starts for MrWormie\_30:

(Start: 9 @37259 has 12 MA's), (19, 37397), (21, 37466), (25, 37514), (28, 37577), (29, 37613), (40, 37781), (56, 38033), (58, 38138),

Gene: Mulch\_27 Start: 23315, Stop: 24382, Start Num: 3

Candidate Starts for Mulch\_27:

(Start: 3 @23315 has 14 MA's), (13, 23525), (24, 23693), (31, 23834), (32, 23849), (34, 23861), (36, 23885), (39, 23969), (43, 24005), (49, 24116),

Gene: Nadeem\_27 Start: 23315, Stop: 24382, Start Num: 3

Candidate Starts for Nadeem\_27:

(Start: 3 @23315 has 14 MA's), (13, 23525), (24, 23693), (31, 23834), (32, 23849), (34, 23861), (36, 23885), (39, 23969), (49, 24116),

Gene: NancyRae\_27 Start: 23321, Stop: 24388, Start Num: 3

Candidate Starts for NancyRae\_27:

(Start: 3 @23321 has 14 MA's), (13, 23531), (24, 23699), (31, 23840), (32, 23855), (34, 23867), (36, 23891), (39, 23975), (43, 24011), (49, 24122),

Gene: Parada\_27 Start: 23315, Stop: 24382, Start Num: 3

Candidate Starts for Parada\_27:

(Start: 3 @23315 has 14 MA's), (13, 23525), (24, 23693), (31, 23834), (32, 23849), (34, 23861), (36, 23885), (39, 23969), (43, 24005), (49, 24116),

Gene: Pimento\_27 Start: 22790, Stop: 23857, Start Num: 2

Candidate Starts for Pimento\_27:

(1, 22655), (Start: 2 @22790 has 1 MA's), (15, 23009), (20, 23111), (23, 23153), (24, 23165), (31, 23309), (34, 23336), (36, 23360), (44, 23483), (46, 23573), (49, 23591),

Gene: Shelley\_30 Start: 37583, Stop: 38485, Start Num: 9

Candidate Starts for Shelley\_30:

(Start: 9 @37583 has 12 MA's), (19, 37721), (21, 37790), (25, 37838), (28, 37901), (29, 37937), (40, 38105), (56, 38357), (58, 38462),

Gene: Skog\_188 Start: 113083, Stop: 113973, Start Num: 9

Candidate Starts for Skog\_188:

(Start: 9 @113083 has 12 MA's), (11, 113122), (17, 113194), (26, 113356), (49, 113722), (53, 113818),

Gene: WheatThin\_27 Start: 23315, Stop: 24382, Start Num: 3

Candidate Starts for WheatThin\_27:

(Start: 3 @23315 has 14 MA's), (13, 23525), (24, 23693), (31, 23834), (32, 23849), (34, 23861), (36, 23885), (39, 23969), (49, 24116),

Gene: Woes\_30 Start: 38617, Stop: 39519, Start Num: 9

Candidate Starts for Woes\_30:

(Start: 9 @38617 has 12 MA's), (19, 38755), (21, 38824), (25, 38872), (28, 38935), (29, 38971), (56, 39391), (58, 39496),