

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 289546 Report

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

Pham number 289546 has 40 members, 12 are drafts.

Phages represented in each track:

- Track 1 : Ranunculus_95
- Track 2 : Galaxy_51
- Track 3 : Jamun_51
- Track 4 : Basilisk_52, Ruchi_51
- Track 5 : Abidatro_54
- Track 6 : Vulpecula_51
- Track 7 : WileyE_53, Chickaboom_53
- Track 8 : Antrice_29, Cygnet_28
- Track 9 : StuartMinion_26, AlexMinion_28
- Track 10 : Andrew_56
- Track 11 : Babushka_25
- Track 12 : DanielleIgnace_54
- Track 13 : Phrampa_294, Phrampa_10
- Track 14 : Atuin_306, Atuin_6, LeoJr_322, LeoJr_9
- Track 15 : Mimi_9, Mimi_294, Patbob_9, Patbob_295
- Track 16 : FloraSnap32_9, FloraSnap32_294
- Track 17 : Racecar_298, Bloom_296, Bloom_9, Racecar_9
- Track 18 : Talia1610_295, Talia1610_9, FrostedClock_9, FrostedClock_294
- Track 19 : ReginaGlobina_7, ReginaGlobina_318
- Track 20 : RomansRevenge_69
- Track 21 : Boise_67

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

The start number called the most often in the published annotations is 6, it was called in 12 of the 28 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Atuin_306, Atuin_6, Bloom_296, Bloom_9, FloraSnap32_294, FloraSnap32_9, FrostedClock_294, FrostedClock_9, LeoJr_322, LeoJr_9, Mimi_294, Mimi_9, Patbob_295, Patbob_9, Phrampa_10, Phrampa_294, Racecar_298, Racecar_9, ReginaGlobina_318, ReginaGlobina_7, Talia1610_295, Talia1610_9,

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

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

• Abidatro_54, AlexMinion_28, Andrew_56, Antrice_29, Babushka_25, Basilisk_52, Boise_67, Chickaboom_53, Cygnet_28, DanielleIgnace_54, Galaxy_51, Jamun_51, Ranunculus_95, RomansRevenge_69, Ruchi_51, StuartMinion_26, Vulpecula_51, WileyE_53,

Summary by start number:

Start 6:

- Found in 22 of 40 (55.0%) of genes in pham
- Manual Annotations of this start: 12 of 28
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Atuin_306 (FC), Atuin_6 (FC), Bloom_296 (FC), Bloom_9 (FC), FloraSnap32_294 (FC), FloraSnap32_9 (FC), FrostedClock_294 (FC), FrostedClock_9 (FC), LeoJr_322 (FC), LeoJr_9 (FC), Mimi_294 (FC), Mimi_9 (FC), Patbob_295 (FC), Patbob_9 (FC), Phrampa_10 (FC), Phrampa_294 (FC), Racecar_298 (FC), Racecar_9 (FC), ReginaGlobina_318 (FC), ReginaGlobina_7 (FC), Talia1610_295 (FC), Talia1610_9 (FC),

Start 8:

- Found in 1 of 40 (2.5%) of genes in pham
- Manual Annotations of this start: 1 of 28
- Called 100.0% of time when present
- Phage (with cluster) where this start called: DanielleIgnace_54 (AT),

Start 9:

- Found in 1 of 40 (2.5%) of genes in pham
- Manual Annotations of this start: 1 of 28
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Andrew_56 (AS3),

Start 12:

- Found in 9 of 40 (22.5%) of genes in pham
- Manual Annotations of this start: 9 of 28
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Abidatro_54 (AS1), Basilisk_52 (AS1), Chickaboom_53 (AS1), Galaxy_51 (AS1), Jamun_51 (AS1), Ranunculus_95 (AP), Ruchi_51 (AS1), Vulpecula_51 (AS1), WileyE_53 (AS1),

Start 15:

- Found in 8 of 40 (20.0%) of genes in pham
- Manual Annotations of this start: 1 of 28
- Called 25.0% of time when present
- Phage (with cluster) where this start called: Boise_67 (FT), RomansRevenge_69 (FT),

Start 17:

- Found in 5 of 40 (12.5%) of genes in pham
- Manual Annotations of this start: 4 of 28
- Called 100.0% of time when present

- Phage (with cluster) where this start called: AlexMinion_28 (AS3), Antrice_29 (AS2), Babushka_25 (AS3), Cygnet_28 (AS2), StuartMinion_26 (AS3),

Summary by clusters:

There are 7 clusters represented in this pham: AS3, AS2, AS1, FT, AP, FC, AT,

Info for manual annotations of cluster AP:

- Start number 12 was manually annotated 1 time for cluster AP.

Info for manual annotations of cluster AS1:

- Start number 12 was manually annotated 8 times for cluster AS1.

Info for manual annotations of cluster AS2:

- Start number 17 was manually annotated 2 times for cluster AS2.

Info for manual annotations of cluster AS3:

- Start number 9 was manually annotated 1 time for cluster AS3.
- Start number 17 was manually annotated 2 times for cluster AS3.

Info for manual annotations of cluster AT:

- Start number 8 was manually annotated 1 time for cluster AT.

Info for manual annotations of cluster FC:

- Start number 6 was manually annotated 12 times for cluster FC.

Info for manual annotations of cluster FT:

- Start number 15 was manually annotated 1 time for cluster FT.

Gene Information:

Gene: Abidatro_54 Start: 34175, Stop: 34618, Start Num: 12

Candidate Starts for Abidatro_54:

(Start: 12 @34175 has 9 MA's), (14, 34190), (18, 34220), (25, 34277), (27, 34283), (35, 34355), (47, 34460), (48, 34469), (49, 34478), (58, 34556), (59, 34583),

Gene: AlexMinion_28 Start: 18898, Stop: 18506, Start Num: 17

Candidate Starts for AlexMinion_28:

(Start: 17 @18898 has 4 MA's),

Gene: Andrew_56 Start: 33399, Stop: 33848, Start Num: 9

Candidate Starts for Andrew_56:

(Start: 9 @33399 has 1 MA's), (10, 33414), (20, 33486), (21, 33489), (26, 33519), (30, 33555), (35, 33591), (39, 33609), (41, 33624), (54, 33765),

Gene: Antrice_29 Start: 20135, Stop: 19743, Start Num: 17

Candidate Starts for Antrice_29:

(Start: 17 @20135 has 4 MA's),

Gene: Atuin_306 Start: 181029, Stop: 181493, Start Num: 6

Candidate Starts for Atuin_306:

(Start: 6 @181029 has 12 MA's), (7, 181041), (11, 181065), (Start: 15 @181098 has 1 MA's), (19, 181128), (28, 181185), (32, 181218), (36, 181233), (45, 181320), (48, 181344), (49, 181353), (51, 181374),

Gene: Atuin_6 Start: 4141, Stop: 4605, Start Num: 6

Candidate Starts for Atuin_6:

(Start: 6 @4141 has 12 MA's), (7, 4153), (11, 4177), (Start: 15 @4210 has 1 MA's), (19, 4240), (28, 4297), (32, 4330), (36, 4345), (45, 4432), (48, 4456), (49, 4465), (51, 4486),

Gene: Babushka_25 Start: 18964, Stop: 18566, Start Num: 17

Candidate Starts for Babushka_25:

(1, 19663), (2, 19393), (Start: 17 @18964 has 4 MA's), (33, 18832), (37, 18820), (38, 18808), (44, 18742), (58, 18625),

Gene: Basilisk_52 Start: 33395, Stop: 33838, Start Num: 12

Candidate Starts for Basilisk_52:

(3, 33308), (4, 33317), (Start: 12 @33395 has 9 MA's), (14, 33410), (27, 33503), (35, 33575), (41, 33614), (52, 33725), (53, 33734),

Gene: Bloom_296 Start: 178410, Stop: 178865, Start Num: 6

Candidate Starts for Bloom_296:

(Start: 6 @178410 has 12 MA's), (42, 178650), (43, 178683),

Gene: Bloom_9 Start: 4935, Stop: 5390, Start Num: 6

Candidate Starts for Bloom_9:

(Start: 6 @4935 has 12 MA's), (42, 5175), (43, 5208),

Gene: Boise_67 Start: 46994, Stop: 46617, Start Num: 15

Candidate Starts for Boise_67:

(Start: 15 @46994 has 1 MA's), (23, 46937), (42, 46829), (43, 46796), (45, 46787), (50, 46751), (56, 46685),

Gene: Chickaboom_53 Start: 33728, Stop: 34177, Start Num: 12

Candidate Starts for Chickaboom_53:

(3, 33641), (4, 33650), (Start: 12 @33728 has 9 MA's), (14, 33743), (25, 33830), (27, 33836), (35, 33914), (41, 33953), (52, 34064), (53, 34073),

Gene: Cygnet_28 Start: 20124, Stop: 19732, Start Num: 17

Candidate Starts for Cygnet_28:

(Start: 17 @20124 has 4 MA's),

Gene: DanielleIgnace_54 Start: 37055, Stop: 37522, Start Num: 8

Candidate Starts for DanielleIgnace_54:

(Start: 8 @37055 has 1 MA's), (16, 37112), (24, 37178), (34, 37259), (40, 37292), (47, 37367), (48, 37376), (50, 37388),

Gene: FloraSnap32_9 Start: 5080, Stop: 5532, Start Num: 6

Candidate Starts for FloraSnap32_9:

(Start: 6 @5080 has 12 MA's), (37, 5275), (42, 5317), (43, 5350), (57, 5467), (61, 5524),

Gene: FloraSnap32_294 Start: 179218, Stop: 179670, Start Num: 6

Candidate Starts for FloraSnap32_294:

(Start: 6 @179218 has 12 MA's), (37, 179413), (42, 179455), (43, 179488), (57, 179605), (61, 179662),

Gene: FrostedClock_9 Start: 4874, Stop: 5320, Start Num: 6

Candidate Starts for FrostedClock_9:
(Start: 6 @4874 has 12 MA's), (57, 5255),

Gene: FrostedClock_294 Start: 178674, Stop: 179120, Start Num: 6

Candidate Starts for FrostedClock_294:
(Start: 6 @178674 has 12 MA's), (57, 179055),

Gene: Galaxy_51 Start: 32590, Stop: 33033, Start Num: 12

Candidate Starts for Galaxy_51:
(Start: 12 @32590 has 9 MA's), (14, 32605), (25, 32692), (27, 32698), (35, 32770), (47, 32875), (48, 32884), (49, 32893), (60, 33019),

Gene: Jamun_51 Start: 33828, Stop: 34265, Start Num: 12

Candidate Starts for Jamun_51:
(3, 33741), (4, 33750), (Start: 12 @33828 has 9 MA's), (14, 33843), (22, 33918), (27, 33936), (35, 34002), (41, 34041), (46, 34098), (47, 34107), (48, 34116), (49, 34125),

Gene: LeoJr_322 Start: 181598, Stop: 182062, Start Num: 6

Candidate Starts for LeoJr_322:
(Start: 6 @181598 has 12 MA's), (7, 181610), (11, 181634), (Start: 15 @181667 has 1 MA's), (19, 181697), (28, 181754), (32, 181787), (36, 181802), (45, 181889), (48, 181913), (49, 181922), (51, 181943),

Gene: LeoJr_9 Start: 4295, Stop: 4759, Start Num: 6

Candidate Starts for LeoJr_9:
(Start: 6 @4295 has 12 MA's), (7, 4307), (11, 4331), (Start: 15 @4364 has 1 MA's), (19, 4394), (28, 4451), (32, 4484), (36, 4499), (45, 4586), (48, 4610), (49, 4619), (51, 4640),

Gene: Mimi_9 Start: 4877, Stop: 5323, Start Num: 6

Candidate Starts for Mimi_9:
(Start: 6 @4877 has 12 MA's), (37, 5066), (42, 5108), (43, 5141), (57, 5258),

Gene: Mimi_294 Start: 177537, Stop: 177983, Start Num: 6

Candidate Starts for Mimi_294:
(Start: 6 @177537 has 12 MA's), (37, 177726), (42, 177768), (43, 177801), (57, 177918),

Gene: Patbob_9 Start: 5127, Stop: 5579, Start Num: 6

Candidate Starts for Patbob_9:
(Start: 6 @5127 has 12 MA's), (37, 5322), (42, 5364), (43, 5397), (57, 5514),

Gene: Patbob_295 Start: 180586, Stop: 181038, Start Num: 6

Candidate Starts for Patbob_295:
(Start: 6 @180586 has 12 MA's), (37, 180781), (42, 180823), (43, 180856), (57, 180973),

Gene: Phrampa_294 Start: 181581, Stop: 182024, Start Num: 6

Candidate Starts for Phrampa_294:
(Start: 6 @181581 has 12 MA's), (36, 181764), (42, 181809), (43, 181842),

Gene: Phrampa_10 Start: 5210, Stop: 5653, Start Num: 6

Candidate Starts for Phrampa_10:
(Start: 6 @5210 has 12 MA's), (36, 5393), (42, 5438), (43, 5471),

Gene: Racecar_298 Start: 178644, Stop: 179099, Start Num: 6
Candidate Starts for Racecar_298:
(Start: 6 @178644 has 12 MA's), (42, 178884), (43, 178917),

Gene: Racecar_9 Start: 4935, Stop: 5390, Start Num: 6
Candidate Starts for Racecar_9:
(Start: 6 @4935 has 12 MA's), (42, 5175), (43, 5208),

Gene: Ranunculus_95 Start: 63522, Stop: 63097, Start Num: 12
Candidate Starts for Ranunculus_95:
(5, 63591), (Start: 12 @63522 has 9 MA's), (13, 63510), (29, 63390), (31, 63384), (37, 63348), (39, 63330), (47, 63255), (48, 63246), (50, 63234), (53, 63201),

Gene: ReginaGlobina_7 Start: 4147, Stop: 4611, Start Num: 6
Candidate Starts for ReginaGlobina_7:
(Start: 6 @4147 has 12 MA's), (7, 4159), (11, 4183), (Start: 15 @4216 has 1 MA's), (19, 4246), (28, 4303), (32, 4336), (36, 4351), (40, 4378), (45, 4438), (48, 4462), (49, 4471), (51, 4492),

Gene: ReginaGlobina_318 Start: 181594, Stop: 182058, Start Num: 6
Candidate Starts for ReginaGlobina_318:
(Start: 6 @181594 has 12 MA's), (7, 181606), (11, 181630), (Start: 15 @181663 has 1 MA's), (19, 181693), (28, 181750), (32, 181783), (36, 181798), (40, 181825), (45, 181885), (48, 181909), (49, 181918), (51, 181939),

Gene: RomansRevenge_69 Start: 47203, Stop: 46820, Start Num: 15
Candidate Starts for RomansRevenge_69:
(Start: 15 @47203 has 1 MA's), (45, 46996), (50, 46960), (55, 46897), (62, 46834),

Gene: Ruchi_51 Start: 33317, Stop: 33760, Start Num: 12
Candidate Starts for Ruchi_51:
(3, 33230), (4, 33239), (Start: 12 @33317 has 9 MA's), (14, 33332), (27, 33425), (35, 33497), (41, 33536), (52, 33647), (53, 33656),

Gene: StuartMinion_26 Start: 18898, Stop: 18506, Start Num: 17
Candidate Starts for StuartMinion_26:
(Start: 17 @18898 has 4 MA's),

Gene: Talia1610_295 Start: 179358, Stop: 179813, Start Num: 6
Candidate Starts for Talia1610_295:
(Start: 6 @179358 has 12 MA's), (57, 179748),

Gene: Talia1610_9 Start: 4886, Stop: 5341, Start Num: 6
Candidate Starts for Talia1610_9:
(Start: 6 @4886 has 12 MA's), (57, 5276),

Gene: Vulpecula_51 Start: 32977, Stop: 33420, Start Num: 12
Candidate Starts for Vulpecula_51:
(3, 32890), (4, 32899), (Start: 12 @32977 has 9 MA's), (14, 32992), (27, 33085), (35, 33157), (41, 33196), (47, 33262), (48, 33271), (49, 33280), (58, 33358), (60, 33406),

Gene: WileyE_53 Start: 33728, Stop: 34177, Start Num: 12
Candidate Starts for WileyE_53:

(3, 33641), (4, 33650), (Start: 12 @33728 has 9 MA's), (14, 33743), (25, 33830), (27, 33836), (35, 33914), (41, 33953), (52, 34064), (53, 34073),