

Pham 191392



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 191392 Report

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

Pham number 191392 has 40 members, 5 are drafts.

Phages represented in each track:

- Track 1 : Agueybana\_35
- Track 2 : Powerball\_28
- Track 3 : Nadeem\_34, Bock\_34, Brylie\_34, Parada\_34, Pimento\_34, Mulch\_34, NancyRae\_34, WheatThin\_34
- Track 4 : Francois\_34
- Track 5 : Chop\_34, Hamood\_34, Ayotoya\_34, GrandSlam\_34
- Track 6 : BetterKatz\_34
- Track 7 : DelRio\_35
- Track 8 : MortyNRick\_35
- Track 9 : HC\_31, Babsiella\_30
- Track 10 : Che9c\_30
- Track 11 : Purgamenstris\_33, Hanako\_33, PhancyPhin\_33, BabeRuth\_34, ShrimpFriedEgg\_33, Redi\_33
- Track 12 : Scitech\_28, Journey\_31, Silvy\_31, Charlie\_31
- Track 13 : SkinnyPete\_28, Bosection6\_31, Aggie\_31, Xeno\_30, Philonius\_31
- Track 14 : Phrann\_33
- Track 15 : Nенаe\_33
- Track 16 : E3\_gp22
- Track 17 : IdentityCrisis\_32

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

The start number called the most often in the published annotations is 7, it was called in 15 of the 35 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Ayotoya\_34, BetterKatz\_34, Bock\_34, Brylie\_34, Chop\_34, DelRio\_35, Francois\_34, GrandSlam\_34, Hamood\_34, Mulch\_34, Nadeem\_34, NancyRae\_34, Parada\_34, Pimento\_34, WheatThin\_34,

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:

• Aggie\_31, Agueybana\_35, BabeRuth\_34, Babsiella\_30, Bosection6\_31, Charlie\_31, Che9c\_30, E3\_gp22, HC\_31, Hanako\_33, IdentityCrisis\_32, Journey\_31, MortyNRick\_35, Nенаe\_33, PhancyPhin\_33, Philonius\_31, Phrann\_33, Powerball\_28, Purgamenstris\_33, Redi\_33, Scitech\_28, ShrimpFriedEgg\_33, Silvy\_31, SkinnyPete\_28, Xeno\_30,

### Summary by start number:

#### Start 7:

- Found in 15 of 40 ( 37.5% ) of genes in pham
- Manual Annotations of this start: 15 of 35
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Ayotoya\_34 (DI), BetterKatz\_34 (DI), Bock\_34 (DI), Brylie\_34 (DI), Chop\_34 (DI), DelRio\_35 (DI), Francois\_34 (DI), GrandSlam\_34 (DI), Hamood\_34 (DI), Mulch\_34 (DI), Nadeem\_34 (DI), NancyRae\_34 (DI), Parada\_34 (DI), Pimento\_34 (DI), WheatThin\_34 (DI),

#### Start 10:

- Found in 19 of 40 ( 47.5% ) of genes in pham
- Manual Annotations of this start: 5 of 35
- Called 36.8% of time when present
- Phage (with cluster) where this start called: Aggie\_31 (N), Bosection6\_31 (N), MortyNRick\_35 (DN), Philonius\_31 (N), Powerball\_28 (CZ4), SkinnyPete\_28 (N), Xeno\_30 (N),

#### Start 11:

- Found in 1 of 40 ( 2.5% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: E3\_gp22 (singleton),

#### Start 12:

- Found in 1 of 40 ( 2.5% ) of genes in pham
- Manual Annotations of this start: 1 of 35
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Phrann\_33 (N),

#### Start 15:

- Found in 1 of 40 ( 2.5% ) of genes in pham
- Manual Annotations of this start: 1 of 35
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Agueybana\_35 (CZ1),

#### Start 16:

- Found in 21 of 40 ( 52.5% ) of genes in pham
- Manual Annotations of this start: 13 of 35
- Called 71.4% of time when present
- Phage (with cluster) where this start called: BabeRuth\_34 (N), Babsiella\_30 (I1), Charlie\_31 (N), Che9c\_30 (I2), HC\_31 (I1), Hanako\_33 (N), IdentityCrisis\_32 (singleton), Journey\_31 (N), Nенаe\_33 (N), PhancyPhin\_33 (N), Purgamenstris\_33 (N), Redi\_33 (N), Scitech\_28 (N), ShrimpFriedEgg\_33 (N), Silvy\_31 (N),

### Summary by clusters:

There are 8 clusters represented in this pham: DN, singleton, I2, DI, I1, CZ1, CZ4, N,

Info for manual annotations of cluster CZ1:

- Start number 15 was manually annotated 1 time for cluster CZ1.

Info for manual annotations of cluster CZ4:

- Start number 10 was manually annotated 1 time for cluster CZ4.

Info for manual annotations of cluster DI:

- Start number 7 was manually annotated 15 times for cluster DI.

Info for manual annotations of cluster I1:

- Start number 16 was manually annotated 2 times for cluster I1.

Info for manual annotations of cluster I2:

- Start number 16 was manually annotated 1 time for cluster I2.

Info for manual annotations of cluster N:

- Start number 10 was manually annotated 4 times for cluster N.
- Start number 12 was manually annotated 1 time for cluster N.
- Start number 16 was manually annotated 9 times for cluster N.

### ***Gene Information:***

Gene: Aggie\_31 Start: 25578, Stop: 25183, Start Num: 10

Candidate Starts for Aggie\_31:

(Start: 10 @25578 has 5 MA's), (Start: 16 @25566 has 13 MA's), (19, 25530), (21, 25515), (28, 25437), (48, 25344), (51, 25302), (52, 25299), (56, 25281), (62, 25221),

Gene: Agueybana\_35 Start: 29277, Stop: 28873, Start Num: 15

Candidate Starts for Agueybana\_35:

(Start: 15 @29277 has 1 MA's), (18, 29256), (20, 29232), (44, 29067), (47, 29052),

Gene: Ayotoya\_34 Start: 28865, Stop: 28449, Start Num: 7

Candidate Starts for Ayotoya\_34:

(1, 29051), (Start: 7 @28865 has 15 MA's), (21, 28793), (24, 28757), (38, 28658), (39, 28652), (51, 28568), (59, 28514),

Gene: BabeRuth\_34 Start: 27217, Stop: 26834, Start Num: 16

Candidate Starts for BabeRuth\_34:

(Start: 10 @27229 has 5 MA's), (Start: 16 @27217 has 13 MA's), (19, 27181), (21, 27166), (28, 27088), (32, 27058), (37, 27043), (51, 26953), (52, 26950), (56, 26932), (59, 26899), (62, 26872),

Gene: Babsiella\_30 Start: 26423, Stop: 25983, Start Num: 16

Candidate Starts for Babsiella\_30:

(Start: 16 @26423 has 13 MA's), (17, 26408), (21, 26369), (23, 26348), (36, 26225), (45, 26192), (50, 26153), (53, 26123), (54, 26114), (59, 26075), (62, 26048), (64, 26024),

Gene: BetterKatz\_34 Start: 28336, Stop: 27920, Start Num: 7

Candidate Starts for BetterKatz\_34:

(Start: 7 @28336 has 15 MA's), (21, 28264), (24, 28228), (29, 28168), (38, 28129), (39, 28123), (51, 28039), (59, 27985),

Gene: Bock\_34 Start: 28086, Stop: 27670, Start Num: 7

Candidate Starts for Bock\_34:

(1, 28272), (Start: 7 @28086 has 15 MA's), (21, 28014), (24, 27978), (29, 27918), (38, 27879), (39, 27873), (51, 27789), (59, 27735),

Gene: Bosection6\_31 Start: 25577, Stop: 25182, Start Num: 10

Candidate Starts for Bosection6\_31:

(Start: 10 @25577 has 5 MA's), (Start: 16 @25565 has 13 MA's), (19, 25529), (21, 25514), (28, 25436), (48, 25343), (51, 25301), (52, 25298), (56, 25280), (62, 25220),

Gene: Brylie\_34 Start: 28074, Stop: 27658, Start Num: 7

Candidate Starts for Brylie\_34:

(1, 28260), (Start: 7 @28074 has 15 MA's), (21, 28002), (24, 27966), (29, 27906), (38, 27867), (39, 27861), (51, 27777), (59, 27723),

Gene: Charlie\_31 Start: 25565, Stop: 25182, Start Num: 16

Candidate Starts for Charlie\_31:

(Start: 10 @25577 has 5 MA's), (Start: 16 @25565 has 13 MA's), (19, 25529), (21, 25514), (28, 25436), (48, 25343), (51, 25301), (52, 25298), (56, 25280), (62, 25220),

Gene: Che9c\_30 Start: 27077, Stop: 26694, Start Num: 16

Candidate Starts for Che9c\_30:

(Start: 10 @27089 has 5 MA's), (Start: 16 @27077 has 13 MA's), (19, 27041), (21, 27026), (28, 26948), (42, 26888), (48, 26855), (51, 26813), (56, 26792), (59, 26759), (62, 26732),

Gene: Chop\_34 Start: 28613, Stop: 28197, Start Num: 7

Candidate Starts for Chop\_34:

(1, 28799), (Start: 7 @28613 has 15 MA's), (21, 28541), (24, 28505), (38, 28406), (39, 28400), (51, 28316), (59, 28262),

Gene: DelRio\_35 Start: 29263, Stop: 28847, Start Num: 7

Candidate Starts for DelRio\_35:

(Start: 7 @29263 has 15 MA's), (21, 29191), (24, 29155), (29, 29095), (38, 29056), (39, 29050), (51, 28966), (59, 28912),

Gene: E3\_gp22 Start: 9420, Stop: 9812, Start Num: 11

Candidate Starts for E3\_gp22:

(11, 9420), (13, 9423), (21, 9483), (22, 9486), (25, 9519), (31, 9570), (34, 9585), (38, 9597), (40, 9606), (41, 9609), (46, 9627), (59, 9744), (63, 9786),

Gene: Francois\_34 Start: 28109, Stop: 27684, Start Num: 7

Candidate Starts for Francois\_34:

(2, 28304), (Start: 7 @28109 has 15 MA's), (21, 28028), (24, 27992), (29, 27932), (38, 27893), (39, 27887), (59, 27749),

Gene: GrandSlam\_34 Start: 28613, Stop: 28197, Start Num: 7

Candidate Starts for GrandSlam\_34:

(1, 28799), (Start: 7 @28613 has 15 MA's), (21, 28541), (24, 28505), (38, 28406), (39, 28400), (51, 28316), (59, 28262),

Gene: HC\_31 Start: 26479, Stop: 26039, Start Num: 16

Candidate Starts for HC\_31:

(Start: 16 @26479 has 13 MA's), (17, 26464), (21, 26425), (23, 26404), (36, 26281), (45, 26248), (50, 26209), (53, 26179), (54, 26170), (59, 26131), (62, 26104), (64, 26080),

Gene: Hamood\_34 Start: 28613, Stop: 28197, Start Num: 7

Candidate Starts for Hamood\_34:

(1, 28799), (Start: 7 @28613 has 15 MA's), (21, 28541), (24, 28505), (38, 28406), (39, 28400), (51, 28316), (59, 28262),

Gene: Hanako\_33 Start: 27216, Stop: 26833, Start Num: 16

Candidate Starts for Hanako\_33:

(Start: 10 @27228 has 5 MA's), (Start: 16 @27216 has 13 MA's), (19, 27180), (21, 27165), (28, 27087), (32, 27057), (37, 27042), (51, 26952), (52, 26949), (56, 26931), (59, 26898), (62, 26871),

Gene: IdentityCrisis\_32 Start: 25735, Stop: 25295, Start Num: 16

Candidate Starts for IdentityCrisis\_32:

(4, 25855), (6, 25774), (Start: 16 @25735 has 13 MA's), (20, 25690), (21, 25681), (23, 25660), (30, 25567), (34, 25543), (36, 25537), (41, 25519), (50, 25465), (54, 25426), (58, 25393), (59, 25387), (60, 25378), (66, 25303),

Gene: Journey\_31 Start: 25565, Stop: 25182, Start Num: 16

Candidate Starts for Journey\_31:

(Start: 10 @25577 has 5 MA's), (Start: 16 @25565 has 13 MA's), (19, 25529), (21, 25514), (28, 25436), (48, 25343), (51, 25301), (52, 25298), (56, 25280), (62, 25220),

Gene: MortyNRick\_35 Start: 28923, Stop: 28537, Start Num: 10

Candidate Starts for MortyNRick\_35:

(5, 28950), (9, 28926), (Start: 10 @28923 has 5 MA's), (13, 28917), (14, 28914), (27, 28809), (31, 28776), (34, 28761), (43, 28734), (47, 28716), (49, 28698), (57, 28626), (62, 28578), (65, 28551),

Gene: Mulch\_34 Start: 28074, Stop: 27658, Start Num: 7

Candidate Starts for Mulch\_34:

(1, 28260), (Start: 7 @28074 has 15 MA's), (21, 28002), (24, 27966), (29, 27906), (38, 27867), (39, 27861), (51, 27777), (59, 27723),

Gene: Nadeem\_34 Start: 28074, Stop: 27658, Start Num: 7

Candidate Starts for Nadeem\_34:

(1, 28260), (Start: 7 @28074 has 15 MA's), (21, 28002), (24, 27966), (29, 27906), (38, 27867), (39, 27861), (51, 27777), (59, 27723),

Gene: NancyRae\_34 Start: 28084, Stop: 27668, Start Num: 7

Candidate Starts for NancyRae\_34:

(1, 28270), (Start: 7 @28084 has 15 MA's), (21, 28012), (24, 27976), (29, 27916), (38, 27877), (39, 27871), (51, 27787), (59, 27733),

Gene: Nенаe\_33 Start: 27219, Stop: 26833, Start Num: 16

Candidate Starts for Nенаe\_33:

(Start: 10 @27231 has 5 MA's), (Start: 16 @27219 has 13 MA's), (19, 27183), (21, 27168), (28, 27090), (32, 27060), (33, 27057), (37, 27042), (51, 26952), (52, 26949), (56, 26931), (59, 26898), (62, 26871),

Gene: Parada\_34 Start: 28074, Stop: 27658, Start Num: 7  
Candidate Starts for Parada\_34:  
(1, 28260), (Start: 7 @28074 has 15 MA's), (21, 28002), (24, 27966), (29, 27906), (38, 27867), (39, 27861), (51, 27777), (59, 27723),

Gene: PhancyPhin\_33 Start: 27213, Stop: 26830, Start Num: 16  
Candidate Starts for PhancyPhin\_33:  
(Start: 10 @27225 has 5 MA's), (Start: 16 @27213 has 13 MA's), (19, 27177), (21, 27162), (28, 27084), (32, 27054), (37, 27039), (51, 26949), (52, 26946), (56, 26928), (59, 26895), (62, 26868),

Gene: Philonius\_31 Start: 25568, Stop: 25173, Start Num: 10  
Candidate Starts for Philonius\_31:  
(Start: 10 @25568 has 5 MA's), (Start: 16 @25556 has 13 MA's), (19, 25520), (21, 25505), (28, 25427), (48, 25334), (51, 25292), (52, 25289), (56, 25271), (62, 25211),

Gene: Phrann\_33 Start: 27801, Stop: 27355, Start Num: 12  
Candidate Starts for Phrann\_33:  
(3, 27924), (8, 27813), (Start: 12 @27801 has 1 MA's), (Start: 16 @27795 has 13 MA's), (21, 27741), (23, 27720), (26, 27660), (30, 27627), (34, 27603), (35, 27600), (36, 27597), (45, 27564), (54, 27486), (59, 27447), (62, 27420),

Gene: Pimento\_34 Start: 27733, Stop: 27317, Start Num: 7  
Candidate Starts for Pimento\_34:  
(1, 27919), (Start: 7 @27733 has 15 MA's), (21, 27661), (24, 27625), (29, 27565), (38, 27526), (39, 27520), (51, 27436), (59, 27382),

Gene: Powerball\_28 Start: 25728, Stop: 25342, Start Num: 10  
Candidate Starts for Powerball\_28:  
(5, 25755), (9, 25731), (Start: 10 @25728 has 5 MA's), (13, 25722), (14, 25719), (25, 25632), (27, 25614), (55, 25446), (61, 25389), (62, 25383), (64, 25359), (65, 25356),

Gene: Purgamenstris\_33 Start: 27216, Stop: 26833, Start Num: 16  
Candidate Starts for Purgamenstris\_33:  
(Start: 10 @27228 has 5 MA's), (Start: 16 @27216 has 13 MA's), (19, 27180), (21, 27165), (28, 27087), (32, 27057), (37, 27042), (51, 26952), (52, 26949), (56, 26931), (59, 26898), (62, 26871),

Gene: Redi\_33 Start: 27216, Stop: 26833, Start Num: 16  
Candidate Starts for Redi\_33:  
(Start: 10 @27228 has 5 MA's), (Start: 16 @27216 has 13 MA's), (19, 27180), (21, 27165), (28, 27087), (32, 27057), (37, 27042), (51, 26952), (52, 26949), (56, 26931), (59, 26898), (62, 26871),

Gene: Scitech\_28 Start: 24742, Stop: 24359, Start Num: 16  
Candidate Starts for Scitech\_28:  
(Start: 10 @24754 has 5 MA's), (Start: 16 @24742 has 13 MA's), (19, 24706), (21, 24691), (28, 24613), (48, 24520), (51, 24478), (52, 24475), (56, 24457), (62, 24397),

Gene: ShrimpFriedEgg\_33 Start: 27216, Stop: 26833, Start Num: 16  
Candidate Starts for ShrimpFriedEgg\_33:  
(Start: 10 @27228 has 5 MA's), (Start: 16 @27216 has 13 MA's), (19, 27180), (21, 27165), (28, 27087), (32, 27057), (37, 27042), (51, 26952), (52, 26949), (56, 26931), (59, 26898), (62, 26871),

Gene: Silvy\_31 Start: 25566, Stop: 25183, Start Num: 16  
Candidate Starts for Silvy\_31:

(Start: 10 @25578 has 5 MA's), (Start: 16 @25566 has 13 MA's), (19, 25530), (21, 25515), (28, 25437), (48, 25344), (51, 25302), (52, 25299), (56, 25281), (62, 25221),

Gene: SkinnyPete\_28 Start: 24617, Stop: 24222, Start Num: 10

Candidate Starts for SkinnyPete\_28:

(Start: 10 @24617 has 5 MA's), (Start: 16 @24605 has 13 MA's), (19, 24569), (21, 24554), (28, 24476), (48, 24383), (51, 24341), (52, 24338), (56, 24320), (62, 24260),

Gene: WheatThin\_34 Start: 28074, Stop: 27658, Start Num: 7

Candidate Starts for WheatThin\_34:

(1, 28260), (Start: 7 @28074 has 15 MA's), (21, 28002), (24, 27966), (29, 27906), (38, 27867), (39, 27861), (51, 27777), (59, 27723),

Gene: Xeno\_30 Start: 25343, Stop: 24948, Start Num: 10

Candidate Starts for Xeno\_30:

(Start: 10 @25343 has 5 MA's), (Start: 16 @25331 has 13 MA's), (19, 25295), (21, 25280), (28, 25202), (48, 25109), (51, 25067), (52, 25064), (56, 25046), (62, 24986),