

Pham 211271



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 211271 Report

This analysis was run 02/22/25 on database version 588.

Pham number 211271 has 33 members, 5 are drafts.

Phages represented in each track:

- Track 1 : BritBrat\_55
- Track 2 : Birdsong\_58, Asapag\_58, Kenna\_58, Getalong\_61, Lutum\_63
- Track 3 : Malisha\_66
- Track 4 : Malisha\_62, Squiddly\_58
- Track 5 : Budski\_65
- Track 6 : BotCity\_64
- Track 7 : BearBQ\_56
- Track 8 : Ecliptus\_61, Frickyeah\_64
- Track 9 : MortyNRick\_54
- Track 10 : ODay\_64, Holliday\_61
- Track 11 : Kamaru\_57, LitninMcQueen\_56
- Track 12 : Phabuloso\_60
- Track 13 : BENtherdunthat\_62
- Track 14 : ShawBrad\_65
- Track 15 : Leroy\_60
- Track 16 : Periwinkle\_70
- Track 17 : Horus\_59
- Track 18 : Whitney\_59
- Track 19 : Phistory\_59
- Track 20 : CheeseTouch\_63
- Track 21 : Spooky\_55
- Track 22 : Apricot\_60, Crater\_60
- Track 23 : Kuwabara\_58
- Track 24 : GAL1\_45

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

The start number called the most often in the published annotations is 20, it was called in 27 of the 28 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Apricot\_60, Asapag\_58, BENtherdunthat\_62, BearBQ\_56, Birdsong\_58, BotCity\_64, Budski\_65, CheeseTouch\_63, Crater\_60, Ecliptus\_61, Frickyeah\_64, GAL1\_45, Getalong\_61, Holliday\_61, Horus\_59, Kamaru\_57, Kenna\_58, Kuwabara\_58,

Leroy\_60, LitninMcQueen\_56, Lutum\_63, Malisha\_62, Malisha\_66, ODay\_64, Periwinkle\_70, Phabuloso\_60, Phistory\_59, ShawBrad\_65, Spooky\_55, Squiddly\_58, Whitney\_59,

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

- BritBrat\_55, MortyNRick\_54,

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

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### Summary by start number:

Start 20:

- Found in 33 of 33 ( 100.0% ) of genes in pham
- Manual Annotations of this start: 27 of 28
- Called 93.9% of time when present
- Phage (with cluster) where this start called: Apricot\_60 (DN3), Asapag\_58 (DN1), BENTherdunthat\_62 (DN1), BearBQ\_56 (DN), Birdsong\_58 (DN), BotCity\_64 (DN), Budski\_65 (DN), CheeseTouch\_63 (DN1), Crater\_60 (DN3), Ecliptus\_61 (DN), Frickyeah\_64 (DN1), GAL1\_45 (singleton), Getalong\_61 (DN1), Holliday\_61 (DN1), Horus\_59 (DN1), Kamaru\_57 (DN1), Kenna\_58 (DN1), Kuwabara\_58 (DN4), Leroy\_60 (DN1), LitninMcQueen\_56 (DN1), Lutum\_63 (DN1), Malisha\_62 (DN), Malisha\_66 (DN), ODay\_64 (DN), Periwinkle\_70 (DN1), Phabuloso\_60 (DN1), Phistory\_59 (DN1), ShawBrad\_65 (DN1), Spooky\_55 (DN2), Squiddly\_58 (DN2), Whitney\_59 (DN1),

Start 21:

- Found in 25 of 33 ( 75.8% ) of genes in pham
- Manual Annotations of this start: 1 of 28
- Called 8.0% of time when present
- Phage (with cluster) where this start called: BritBrat\_55 (CY2), MortyNRick\_54 (DN),

### Summary by clusters:

There are 7 clusters represented in this pham: DN, CY2, singleton, DN4, DN1, DN3, DN2,

Info for manual annotations of cluster CY2:

- Start number 21 was manually annotated 1 time for cluster CY2.

Info for manual annotations of cluster DN:

- Start number 20 was manually annotated 7 times for cluster DN.

Info for manual annotations of cluster DN1:

- Start number 20 was manually annotated 15 times for cluster DN1.

Info for manual annotations of cluster DN2:

- Start number 20 was manually annotated 2 times for cluster DN2.

Info for manual annotations of cluster DN3:

- Start number 20 was manually annotated 2 times for cluster DN3.

Info for manual annotations of cluster DN4:

- Start number 20 was manually annotated 1 time for cluster DN4.

### **Gene Information:**

Gene: Apricot\_60 Start: 38264, Stop: 38503, Start Num: 20

Candidate Starts for Apricot\_60:

(2, 38111), (3, 38120), (6, 38168), (7, 38174), (Start: 20 @38264 has 27 MA's), (Start: 21 @38273 has 1 MA's), (23, 38279), (27, 38324), (28, 38330), (31, 38366), (34, 38375), (42, 38438), (43, 38444),

Gene: Asapag\_58 Start: 37842, Stop: 38081, Start Num: 20

Candidate Starts for Asapag\_58:

(10, 37779), (Start: 20 @37842 has 27 MA's), (Start: 21 @37851 has 1 MA's), (28, 37908), (31, 37944), (33, 37950), (34, 37953), (42, 38016), (43, 38022),

Gene: BENtherdunthat\_62 Start: 39104, Stop: 39361, Start Num: 20

Candidate Starts for BENtherdunthat\_62:

(Start: 20 @39104 has 27 MA's), (26, 39143), (39, 39278), (41, 39284), (45, 39305), (46, 39311),

Gene: BearBQ\_56 Start: 39471, Stop: 39710, Start Num: 20

Candidate Starts for BearBQ\_56:

(15, 39444), (Start: 20 @39471 has 27 MA's), (Start: 21 @39480 has 1 MA's), (23, 39486), (27, 39531), (28, 39537), (31, 39573), (33, 39579), (34, 39582), (42, 39645), (43, 39651),

Gene: Birdsong\_58 Start: 38063, Stop: 38302, Start Num: 20

Candidate Starts for Birdsong\_58:

(10, 38000), (Start: 20 @38063 has 27 MA's), (Start: 21 @38072 has 1 MA's), (28, 38129), (31, 38165), (33, 38171), (34, 38174), (42, 38237), (43, 38243),

Gene: BotCity\_64 Start: 39287, Stop: 39526, Start Num: 20

Candidate Starts for BotCity\_64:

(10, 39224), (Start: 20 @39287 has 27 MA's), (Start: 21 @39296 has 1 MA's), (27, 39347), (28, 39353), (32, 39392), (33, 39395), (34, 39398), (42, 39461), (43, 39467),

Gene: BritBrat\_55 Start: 39331, Stop: 39576, Start Num: 21

Candidate Starts for BritBrat\_55:

(9, 39250), (11, 39256), (Start: 20 @39322 has 27 MA's), (Start: 21 @39331 has 1 MA's), (22, 39334), (23, 39337), (29, 39400), (35, 39472), (37, 39484), (39, 39496), (44, 39517), (45, 39523), (46, 39529), (47, 39535), (48, 39559),

Gene: Budski\_65 Start: 40250, Stop: 40489, Start Num: 20

Candidate Starts for Budski\_65:

(10, 40187), (Start: 20 @40250 has 27 MA's), (Start: 21 @40259 has 1 MA's), (27, 40310), (28, 40316), (30, 40346), (31, 40352), (32, 40355), (33, 40358), (34, 40361), (42, 40424), (43, 40430),

Gene: CheeseTouch\_63 Start: 35514, Stop: 35771, Start Num: 20

Candidate Starts for CheeseTouch\_63:

(Start: 20 @35514 has 27 MA's), (25, 35550), (26, 35553), (32, 35631), (39, 35688), (41, 35694), (46, 35721), (47, 35727), (49, 35757),

Gene: Crater\_60 Start: 38659, Stop: 38898, Start Num: 20

Candidate Starts for Crater\_60:

(2, 38506), (3, 38515), (6, 38563), (7, 38569), (Start: 20 @38659 has 27 MA's), (Start: 21 @38668 has 1 MA's), (23, 38674), (27, 38719), (28, 38725), (31, 38761), (34, 38770), (42, 38833), (43, 38839),

Gene: Ecliptus\_61 Start: 40444, Stop: 40701, Start Num: 20

Candidate Starts for Ecliptus\_61:

(Start: 20 @40444 has 27 MA's), (24, 40468), (25, 40480), (26, 40483), (32, 40561), (41, 40624), (46, 40651), (47, 40657), (49, 40687),

Gene: Frickyeah\_64 Start: 38511, Stop: 38768, Start Num: 20

Candidate Starts for Frickyeah\_64:

(Start: 20 @38511 has 27 MA's), (24, 38535), (25, 38547), (26, 38550), (32, 38628), (41, 38691), (46, 38718), (47, 38724), (49, 38754),

Gene: GAL1\_45 Start: 34356, Stop: 34607, Start Num: 20

Candidate Starts for GAL1\_45:

(12, 34302), (17, 34338), (Start: 20 @34356 has 27 MA's), (Start: 21 @34365 has 1 MA's), (27, 34416), (34, 34467), (36, 34500), (38, 34509), (40, 34521), (42, 34530), (43, 34536),

Gene: Getalong\_61 Start: 40094, Stop: 40333, Start Num: 20

Candidate Starts for Getalong\_61:

(10, 40031), (Start: 20 @40094 has 27 MA's), (Start: 21 @40103 has 1 MA's), (28, 40160), (31, 40196), (33, 40202), (34, 40205), (42, 40268), (43, 40274),

Gene: Holliday\_61 Start: 39829, Stop: 40068, Start Num: 20

Candidate Starts for Holliday\_61:

(18, 39823), (Start: 20 @39829 has 27 MA's), (Start: 21 @39838 has 1 MA's), (28, 39895), (32, 39934), (33, 39937), (34, 39940), (42, 40003), (43, 40009),

Gene: Horus\_59 Start: 39218, Stop: 39457, Start Num: 20

Candidate Starts for Horus\_59:

(Start: 20 @39218 has 27 MA's), (Start: 21 @39227 has 1 MA's), (23, 39233), (28, 39284), (32, 39323), (33, 39326), (34, 39329), (42, 39392), (43, 39398),

Gene: Kamaru\_57 Start: 38326, Stop: 38565, Start Num: 20

Candidate Starts for Kamaru\_57:

(Start: 20 @38326 has 27 MA's), (Start: 21 @38335 has 1 MA's), (27, 38386), (28, 38392), (30, 38422), (31, 38428), (32, 38431), (33, 38434), (34, 38437), (42, 38500), (43, 38506),

Gene: Kenna\_58 Start: 38295, Stop: 38534, Start Num: 20

Candidate Starts for Kenna\_58:

(10, 38232), (Start: 20 @38295 has 27 MA's), (Start: 21 @38304 has 1 MA's), (28, 38361), (31, 38397), (33, 38403), (34, 38406), (42, 38469), (43, 38475),

Gene: Kuwabara\_58 Start: 39769, Stop: 40038, Start Num: 20

Candidate Starts for Kuwabara\_58:

(8, 39682), (Start: 20 @39769 has 27 MA's), (24, 39793), (25, 39805), (26, 39808), (32, 39886), (39, 39943), (41, 39949), (45, 39970), (46, 39976), (47, 39982), (49, 40024),

Gene: Leroy\_60 Start: 38595, Stop: 38834, Start Num: 20

Candidate Starts for Leroy\_60:

(19, 38589), (Start: 20 @38595 has 27 MA's), (Start: 21 @38604 has 1 MA's), (28, 38661), (32, 38700), (33, 38703), (34, 38706), (42, 38769), (43, 38775),

Gene: LitninMcQueen\_56 Start: 38073, Stop: 38312, Start Num: 20

Candidate Starts for LitninMcQueen\_56:

(Start: 20 @38073 has 27 MA's), (Start: 21 @38082 has 1 MA's), (27, 38133), (28, 38139), (30, 38169), (31, 38175), (32, 38178), (33, 38181), (34, 38184), (42, 38247), (43, 38253),

Gene: Lutum\_63 Start: 39459, Stop: 39698, Start Num: 20

Candidate Starts for Lutum\_63:

(10, 39396), (Start: 20 @39459 has 27 MA's), (Start: 21 @39468 has 1 MA's), (28, 39525), (31, 39561), (33, 39567), (34, 39570), (42, 39633), (43, 39639),

Gene: Malisha\_66 Start: 41157, Stop: 41402, Start Num: 20

Candidate Starts for Malisha\_66:

(5, 41055), (12, 41103), (Start: 20 @41157 has 27 MA's), (Start: 21 @41166 has 1 MA's), (22, 41169), (23, 41172), (34, 41268), (36, 41301), (38, 41310), (40, 41322), (42, 41331), (43, 41337),

Gene: Malisha\_62 Start: 40279, Stop: 40536, Start Num: 20

Candidate Starts for Malisha\_62:

(Start: 20 @40279 has 27 MA's), (24, 40303), (25, 40315), (26, 40318), (32, 40396), (41, 40459), (46, 40486), (47, 40492),

Gene: MortyNRick\_54 Start: 39519, Stop: 39749, Start Num: 21

Candidate Starts for MortyNRick\_54:

(Start: 20 @39510 has 27 MA's), (Start: 21 @39519 has 1 MA's), (23, 39525), (27, 39570), (28, 39576), (31, 39612), (33, 39618), (34, 39621), (42, 39684), (43, 39690),

Gene: ODay\_64 Start: 40499, Stop: 40738, Start Num: 20

Candidate Starts for ODay\_64:

(18, 40493), (Start: 20 @40499 has 27 MA's), (Start: 21 @40508 has 1 MA's), (28, 40565), (32, 40604), (33, 40607), (34, 40610), (42, 40673), (43, 40679),

Gene: Periwinkle\_70 Start: 41840, Stop: 42097, Start Num: 20

Candidate Starts for Periwinkle\_70:

(Start: 20 @41840 has 27 MA's), (24, 41864), (25, 41876), (26, 41879), (32, 41957), (39, 42014), (41, 42020), (46, 42047),

Gene: Phabuloso\_60 Start: 38504, Stop: 38743, Start Num: 20

Candidate Starts for Phabuloso\_60:

(6, 38408), (7, 38414), (13, 38459), (14, 38471), (16, 38480), (Start: 20 @38504 has 27 MA's), (Start: 21 @38513 has 1 MA's), (27, 38564), (28, 38570), (42, 38678), (43, 38684),

Gene: Phistory\_59 Start: 37758, Stop: 37997, Start Num: 20

Candidate Starts for Phistory\_59:

(1, 37596), (4, 37629), (Start: 20 @37758 has 27 MA's), (Start: 21 @37767 has 1 MA's), (23, 37773), (27, 37818), (28, 37824), (30, 37854), (31, 37860), (33, 37866), (34, 37869), (42, 37932), (43, 37938),

Gene: ShawBrad\_65 Start: 38921, Stop: 39160, Start Num: 20

Candidate Starts for ShawBrad\_65:

(Start: 20 @38921 has 27 MA's), (Start: 21 @38930 has 1 MA's), (28, 38987), (42, 39095), (43, 39101),

Gene: Spooky\_55 Start: 37854, Stop: 38102, Start Num: 20

Candidate Starts for Spooky\_55:

(5, 37752), (12, 37800), (Start: 20 @37854 has 27 MA's), (Start: 21 @37863 has 1 MA's), (22, 37866), (23, 37869), (34, 37965), (36, 37998), (38, 38007), (40, 38019), (42, 38028), (43, 38034), (48, 38085),

Gene: Squiddly\_58 Start: 39792, Stop: 40049, Start Num: 20

Candidate Starts for Squiddly\_58:

(Start: 20 @39792 has 27 MA's), (24, 39816), (25, 39828), (26, 39831), (32, 39909), (41, 39972), (46, 39999), (47, 40005),

Gene: Whitney\_59 Start: 40077, Stop: 40322, Start Num: 20

Candidate Starts for Whitney\_59:

(Start: 20 @40077 has 27 MA's), (Start: 21 @40086 has 1 MA's), (28, 40143), (34, 40188), (42, 40251), (43, 40257),