



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 219907 Report

This analysis was run 03/28/25 on database version 593.

Pham number 219907 has 39 members, 6 are drafts.

Phages represented in each track:

- Track 1 : Butterball\_61, Adgers\_61, SteveFrench\_57, RoyalG\_58, Boneham\_62
- Track 2 : John316\_61, Hotorobo\_58, Monty\_57, Gorko\_57, Worcestershire\_58
- Track 3 : FelixAlejandro\_63, Sombrero\_59
- Track 4 : CinnamonToast\_64, Jellybones\_60
- Track 5 : BigShaq\_58, Crete\_59, BenoitCattle\_58
- Track 6 : Dakiti\_59, PierreThree\_57, Chelms\_58
- Track 7 : CathyBurgh\_57, Beaver\_61, Barbochs\_58, Exiguo\_57, Flakey\_57, Sam12\_57, Breezic\_58, RemRem\_59, Squibbles\_57, Ekhein\_58, Lizzo\_58
- Track 8 : Eggsie\_56
- Track 9 : BirksAndSocks\_63
- Track 10 : GourdThymes\_58
- Track 11 : Msay19\_63, Poland\_63
- Track 12 : Diabla\_62
- Track 13 : PokyPuppy\_57
- Track 14 : Linetti\_58

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

The start number called the most often in the published annotations is 2, it was called in 33 of the 33 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Adgers\_61, Barbochs\_58, Beaver\_61, BenoitCattle\_58, BigShaq\_58, BirksAndSocks\_63, Boneham\_62, Breezic\_58, Butterball\_61, CathyBurgh\_57, Chelms\_58, CinnamonToast\_64, Crete\_59, Dakiti\_59, Diabla\_62, Eggsie\_56, Ekhein\_58, Exiguo\_57, FelixAlejandro\_63, Flakey\_57, Gorko\_57, GourdThymes\_58, Hotorobo\_58, Jellybones\_60, John316\_61, Linetti\_58, Lizzo\_58, Monty\_57, Msay19\_63, PierreThree\_57, PokyPuppy\_57, Poland\_63, RemRem\_59, RoyalG\_58, Sam12\_57, Sombrero\_59, Squibbles\_57, SteveFrench\_57, Worcestershire\_58,

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:

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### Summary by start number:

Start 2:

- Found in 39 of 39 ( 100.0% ) of genes in pham
- Manual Annotations of this start: 33 of 33
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Adgers\_61 (CS2), Barbochs\_58 (CS2), Beaver\_61 (CS2), BenoitCattle\_58 (CS2), BigShaq\_58 (CS2), BirksAndSocks\_63 (CS2), Boneham\_62 (CS2), Breezic\_58 (CS2), Butterball\_61 (CS2), CathyBurgh\_57 (CS2), Chelms\_58 (CS2), CinnamonToast\_64 (CS2), Crete\_59 (CS2), Dakiti\_59 (CS2), Diabla\_62 (CS2), Eggsie\_56 (CS2), Ekhein\_58 (CS2), Exiguo\_57 (CS2), FelixAlejandro\_63 (CS2), Flakey\_57 (CS2), Gorko\_57 (CS2), GourdThymes\_58 (CS2), Hotorobo\_58 (CS2), Jellybones\_60 (CS2), John316\_61 (CS2), Linetti\_58 (CS2), Lizzo\_58 (CS2), Monty\_57 (CS2), Msay19\_63 (CS2), PierreThree\_57 (CS2), PokyPuppy\_57 (CS2), Poland\_63 (CS2), RemRem\_59 (CS2), RoyalG\_58 (CS2), Sam12\_57 (CS2), Sombrero\_59 (CS2), Squibbles\_57 (CS2), SteveFrench\_57 (CS2), Worcestershire\_58 (CS2),

### Summary by clusters:

There is one cluster represented in this pham: CS2

Info for manual annotations of cluster CS2:

- Start number 2 was manually annotated 33 times for cluster CS2.

### Gene Information:

Gene: Adgers\_61 Start: 50663, Stop: 50379, Start Num: 2

Candidate Starts for Adgers\_61:

(1, 50873), (Start: 2 @50663 has 33 MA's), (6, 50606), (11, 50549), (14, 50495), (20, 50405),

Gene: Barbochs\_58 Start: 50207, Stop: 49923, Start Num: 2

Candidate Starts for Barbochs\_58:

(Start: 2 @50207 has 33 MA's), (6, 50150), (9, 50123), (14, 50039), (17, 49985), (20, 49949),

Gene: Beaver\_61 Start: 51977, Stop: 51693, Start Num: 2

Candidate Starts for Beaver\_61:

(Start: 2 @51977 has 33 MA's), (6, 51920), (9, 51893), (14, 51809), (17, 51755), (20, 51719),

Gene: BenoitCattle\_58 Start: 50614, Stop: 50330, Start Num: 2

Candidate Starts for BenoitCattle\_58:

(Start: 2 @50614 has 33 MA's), (3, 50596), (5, 50581), (6, 50557), (10, 50518), (12, 50479), (15, 50428), (17, 50392), (19, 50377), (20, 50356), (21, 50347),

Gene: BigShaq\_58 Start: 50619, Stop: 50335, Start Num: 2

Candidate Starts for BigShaq\_58:

(Start: 2 @50619 has 33 MA's), (3, 50601), (5, 50586), (6, 50562), (10, 50523), (12, 50484), (15, 50433), (17, 50397), (19, 50382), (20, 50361), (21, 50352),

Gene: BirksAndSocks\_63 Start: 52327, Stop: 52043, Start Num: 2  
Candidate Starts for BirksAndSocks\_63:  
(1, 52537), (Start: 2 @52327 has 33 MA's), (6, 52270), (9, 52243), (14, 52159), (16, 52126), (17, 52105), (20, 52069),

Gene: Boneham\_62 Start: 52228, Stop: 51944, Start Num: 2  
Candidate Starts for Boneham\_62:  
(1, 52438), (Start: 2 @52228 has 33 MA's), (6, 52171), (11, 52114), (14, 52060), (20, 51970),

Gene: Breezic\_58 Start: 50220, Stop: 49936, Start Num: 2  
Candidate Starts for Breezic\_58:  
(Start: 2 @50220 has 33 MA's), (6, 50163), (9, 50136), (14, 50052), (17, 49998), (20, 49962),

Gene: Butterball\_61 Start: 52233, Stop: 51949, Start Num: 2  
Candidate Starts for Butterball\_61:  
(1, 52443), (Start: 2 @52233 has 33 MA's), (6, 52176), (11, 52119), (14, 52065), (20, 51975),

Gene: CathyBurgh\_57 Start: 50797, Stop: 50513, Start Num: 2  
Candidate Starts for CathyBurgh\_57:  
(Start: 2 @50797 has 33 MA's), (6, 50740), (9, 50713), (14, 50629), (17, 50575), (20, 50539),

Gene: Chelms\_58 Start: 50763, Stop: 50479, Start Num: 2  
Candidate Starts for Chelms\_58:  
(1, 50973), (Start: 2 @50763 has 33 MA's), (3, 50745), (5, 50730), (6, 50706), (10, 50667), (12, 50628), (15, 50577), (17, 50541), (19, 50526), (20, 50505), (21, 50496),

Gene: CinnamonToast\_64 Start: 52287, Stop: 52003, Start Num: 2  
Candidate Starts for CinnamonToast\_64:  
(1, 52497), (Start: 2 @52287 has 33 MA's), (6, 52230), (9, 52203), (14, 52119), (15, 52101), (16, 52086), (17, 52065), (20, 52029),

Gene: Crete\_59 Start: 50885, Stop: 50601, Start Num: 2  
Candidate Starts for Crete\_59:  
(Start: 2 @50885 has 33 MA's), (3, 50867), (5, 50852), (6, 50828), (10, 50789), (12, 50750), (15, 50699), (17, 50663), (19, 50648), (20, 50627), (21, 50618),

Gene: Dakiti\_59 Start: 51631, Stop: 51347, Start Num: 2  
Candidate Starts for Dakiti\_59:  
(1, 51841), (Start: 2 @51631 has 33 MA's), (3, 51613), (5, 51598), (6, 51574), (10, 51535), (12, 51496), (15, 51445), (17, 51409), (19, 51394), (20, 51373), (21, 51364),

Gene: Diabla\_62 Start: 52286, Stop: 52002, Start Num: 2  
Candidate Starts for Diabla\_62:  
(1, 52496), (Start: 2 @52286 has 33 MA's), (4, 52262), (6, 52229), (8, 52217), (13, 52139),

Gene: Eggsie\_56 Start: 50063, Stop: 49779, Start Num: 2  
Candidate Starts for Eggsie\_56:  
(Start: 2 @50063 has 33 MA's), (9, 49979), (14, 49895), (17, 49841), (20, 49805),

Gene: Ekhein\_58 Start: 49925, Stop: 49641, Start Num: 2  
Candidate Starts for Ekhein\_58:  
(Start: 2 @49925 has 33 MA's), (6, 49868), (9, 49841), (14, 49757), (17, 49703), (20, 49667),

Gene: Exiguo\_57 Start: 49937, Stop: 49653, Start Num: 2

Candidate Starts for Exiguo\_57:

(Start: 2 @49937 has 33 MA's), (6, 49880), (9, 49853), (14, 49769), (17, 49715), (20, 49679),

Gene: FelixAlejandro\_63 Start: 52631, Stop: 52347, Start Num: 2

Candidate Starts for FelixAlejandro\_63:

(Start: 2 @52631 has 33 MA's), (6, 52574), (10, 52535), (12, 52496), (15, 52445), (17, 52409), (20, 52373),

Gene: Flakey\_57 Start: 50801, Stop: 50517, Start Num: 2

Candidate Starts for Flakey\_57:

(Start: 2 @50801 has 33 MA's), (6, 50744), (9, 50717), (14, 50633), (17, 50579), (20, 50543),

Gene: Gorko\_57 Start: 49929, Stop: 49645, Start Num: 2

Candidate Starts for Gorko\_57:

(Start: 2 @49929 has 33 MA's), (6, 49872), (9, 49845), (11, 49815), (14, 49761), (17, 49707), (20, 49671),

Gene: GourdThymes\_58 Start: 50803, Stop: 50519, Start Num: 2

Candidate Starts for GourdThymes\_58:

(Start: 2 @50803 has 33 MA's), (6, 50746), (9, 50719), (17, 50581), (20, 50545),

Gene: Hotorobo\_58 Start: 50808, Stop: 50524, Start Num: 2

Candidate Starts for Hotorobo\_58:

(Start: 2 @50808 has 33 MA's), (6, 50751), (9, 50724), (11, 50694), (14, 50640), (17, 50586), (20, 50550),

Gene: Jellybones\_60 Start: 51903, Stop: 51619, Start Num: 2

Candidate Starts for Jellybones\_60:

(1, 52113), (Start: 2 @51903 has 33 MA's), (6, 51846), (9, 51819), (14, 51735), (15, 51717), (16, 51702), (17, 51681), (20, 51645),

Gene: John316\_61 Start: 51966, Stop: 51682, Start Num: 2

Candidate Starts for John316\_61:

(Start: 2 @51966 has 33 MA's), (6, 51909), (9, 51882), (11, 51852), (14, 51798), (17, 51744), (20, 51708),

Gene: Linetti\_58 Start: 51616, Stop: 51332, Start Num: 2

Candidate Starts for Linetti\_58:

(1, 51826), (Start: 2 @51616 has 33 MA's), (3, 51598), (5, 51583), (6, 51559), (10, 51520), (12, 51481), (15, 51430), (17, 51394), (20, 51358), (21, 51349),

Gene: Lizzo\_58 Start: 50797, Stop: 50513, Start Num: 2

Candidate Starts for Lizzo\_58:

(Start: 2 @50797 has 33 MA's), (6, 50740), (9, 50713), (14, 50629), (17, 50575), (20, 50539),

Gene: Monty\_57 Start: 49947, Stop: 49663, Start Num: 2

Candidate Starts for Monty\_57:

(Start: 2 @49947 has 33 MA's), (6, 49890), (9, 49863), (11, 49833), (14, 49779), (17, 49725), (20, 49689),

Gene: Msay19\_63 Start: 52517, Stop: 52233, Start Num: 2

Candidate Starts for Msay19\_63:

(Start: 2 @52517 has 33 MA's), (6, 52460), (9, 52433), (14, 52349), (15, 52331), (16, 52316), (17, 52295), (20, 52259),

Gene: PierreThree\_57 Start: 51262, Stop: 50978, Start Num: 2

Candidate Starts for PierreThree\_57:

(1, 51472), (Start: 2 @51262 has 33 MA's), (3, 51244), (5, 51229), (6, 51205), (10, 51166), (12, 51127), (15, 51076), (17, 51040), (19, 51025), (20, 51004), (21, 50995),

Gene: PokyPuppy\_57 Start: 51259, Stop: 50975, Start Num: 2

Candidate Starts for PokyPuppy\_57:

(Start: 2 @51259 has 33 MA's), (7, 51193), (18, 51034),

Gene: Poland\_63 Start: 52496, Stop: 52212, Start Num: 2

Candidate Starts for Poland\_63:

(Start: 2 @52496 has 33 MA's), (6, 52439), (9, 52412), (14, 52328), (15, 52310), (16, 52295), (17, 52274), (20, 52238),

Gene: RemRem\_59 Start: 49937, Stop: 49653, Start Num: 2

Candidate Starts for RemRem\_59:

(Start: 2 @49937 has 33 MA's), (6, 49880), (9, 49853), (14, 49769), (17, 49715), (20, 49679),

Gene: RoyalG\_58 Start: 50712, Stop: 50428, Start Num: 2

Candidate Starts for RoyalG\_58:

(1, 50922), (Start: 2 @50712 has 33 MA's), (6, 50655), (11, 50598), (14, 50544), (20, 50454),

Gene: Sam12\_57 Start: 49937, Stop: 49653, Start Num: 2

Candidate Starts for Sam12\_57:

(Start: 2 @49937 has 33 MA's), (6, 49880), (9, 49853), (14, 49769), (17, 49715), (20, 49679),

Gene: Sombrero\_59 Start: 50504, Stop: 50220, Start Num: 2

Candidate Starts for Sombrero\_59:

(Start: 2 @50504 has 33 MA's), (6, 50447), (10, 50408), (12, 50369), (15, 50318), (17, 50282), (20, 50246),

Gene: Squibbles\_57 Start: 50800, Stop: 50516, Start Num: 2

Candidate Starts for Squibbles\_57:

(Start: 2 @50800 has 33 MA's), (6, 50743), (9, 50716), (14, 50632), (17, 50578), (20, 50542),

Gene: SteveFrench\_57 Start: 50952, Stop: 50668, Start Num: 2

Candidate Starts for SteveFrench\_57:

(1, 51162), (Start: 2 @50952 has 33 MA's), (6, 50895), (11, 50838), (14, 50784), (20, 50694),

Gene: Worcestershire\_58 Start: 49939, Stop: 49655, Start Num: 2

Candidate Starts for Worcestershire\_58:

(Start: 2 @49939 has 33 MA's), (6, 49882), (9, 49855), (11, 49825), (14, 49771), (17, 49717), (20, 49681),