

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 158061 Report

This analysis was run 04/13/24 on database version 558.

Pham number 158061 has 33 members, 5 are drafts.

Phages represented in each track:

- Track 1: Papez\_9, Kenmech\_10, TheloniousMonk\_9, LilBib\_8
- Track 2 : Norz 9, Monet 9
- Track 3: Squee\_8, Gwendoluna\_9, KBG\_9, Graduation\_10, Solon\_8, Nerujay\_9
- Track 4: Hermia\_9, Buttons\_9, SpikeBT\_9, Edtherson\_9, Treddle\_9
- Track 5 : BillKnuckles\_9, DD5\_9
- Track 6 : Zeuska\_8, QTRlifeCrisis\_11
- Track 7: StAnnes 29, Hamulus 31, Soul22 35, Kingsley 29
- Track 8 : Ovechkin 31
- Track 9: Ruby 32, MisterCuddles 32, Girr 32
- Track 10 : Mozy\_32
- Track 11 : Mozy\_92
- Track 12 : GMÁ4 67
- Track 13 : LilSpotty\_83

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

The start number called the most often in the published annotations is 10, it was called in 17 of the 28 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

• BillKnuckles\_9, Buttons\_9, DD5\_9, Edtherson\_9, Graduation\_10, Gwendoluna\_9, Hermia\_9, KBG\_9, Kenmech\_10, LilBib\_8, Monet\_9, Nerujay\_9, Norz\_9, Papez\_9, QTRlifeCrisis\_11, Solon\_8, SpikeBT\_9, Squee\_8, TheloniousMonk\_9, Treddle\_9, Zeuska\_8,

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

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

• GMA4\_67, Girr\_32, Hamulus\_31, Kingsley\_29, LilSpotty\_83, MisterCuddles\_32, Mozy\_32, Mozy\_92, Ovechkin\_31, Ruby\_32, Soul22\_35, StAnnes\_29,

### **Summary by start number:**

### Start 1:

- Found in 5 of 33 (15.2%) of genes in pham
- Manual Annotations of this start: 1 of 28
- Called 20.0% of time when present
- Phage (with cluster) where this start called: Ovechkin\_31 (F1),

#### Start 2:

- Found in 5 of 33 (15.2%) of genes in pham
- Manual Annotations of this start: 4 of 28
- Called 80.0% of time when present
- Phage (with cluster) where this start called: Hamulus\_31 (F1), Kingsley\_29 (F1), Soul22\_35 (F2), StAnnes\_29 (F1),

### Start 3:

- Found in 3 of 33 (9.1%) of genes in pham
- Manual Annotations of this start: 3 of 28
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Girr\_32 (F1), MisterCuddles\_32 (F1), Ruby\_32 (F1),

#### Start 5:

- Found in 1 of 33 ( 3.0% ) 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: Mozy\_92 (F1),

#### Start 6:

- Found in 1 of 33 ( 3.0% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: GMA4 67 (singleton),

### Start 10:

- Found in 21 of 33 (63.6%) of genes in pham
- Manual Annotations of this start: 17 of 28
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BillKnuckles\_9 (A1), Buttons\_9 (A1), DD5\_9 (A1), Edtherson\_9 (A1), Graduation\_10 (A1), Gwendoluna\_9 (A1), Hermia\_9 (A1), KBG\_9 (A1), Kenmech\_10 (A1), LilBib\_8 (A1), Monet\_9 (A1), Nerujay\_9 (A1), Norz\_9 (A1), Papez\_9 (A1), QTRlifeCrisis\_11 (A1), Solon\_8 (A1), SpikeBT\_9 (A1), Squee\_8 (A1), TheloniousMonk\_9 (A1), Treddle\_9 (A1), Zeuska\_8 (A1),

#### Start 11:

- Found in 1 of 33 ( 3.0% ) 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: Mozy\_32 (F1),

### Start 16:

- Found in 1 of 33 ( 3.0% ) 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: LilSpotty 83 (singleton),

## Summary by clusters:

There are 4 clusters represented in this pham: A1, F1, singleton, F2,

Info for manual annotations of cluster A1:

•Start number 10 was manually annotated 17 times for cluster A1.

Info for manual annotations of cluster F1:

- •Start number 1 was manually annotated 1 time for cluster F1.
- •Start number 2 was manually annotated 3 times for cluster F1.
- •Start number 3 was manually annotated 3 times for cluster F1.
- •Start number 5 was manually annotated 1 time for cluster F1.
- •Start number 11 was manually annotated 1 time for cluster F1.

Info for manual annotations of cluster F2:

•Start number 2 was manually annotated 1 time for cluster F2.

### Gene Information:

Gene: BillKnuckles\_9 Start: 4709, Stop: 5290, Start Num: 10

Candidate Starts for BillKnuckles\_9:

(Start: 10 @4709 has 17 MA's), (15, 4811), (17, 4832), (26, 4880), (41, 5159),

Gene: Buttons\_9 Start: 4220, Stop: 4798, Start Num: 10

Candidate Starts for Buttons\_9:

(Start: 10 @4220 has 17 MA's), (18, 4346), (41, 4679),

Gene: DD5\_9 Start: 4751, Stop: 5332, Start Num: 10

Candidate Starts for DD5 9:

(Start: 10 @4751 has 17 MA's), (15, 4853), (17, 4874), (26, 4922), (41, 5201),

Gene: Edtherson 9 Start: 4530, Stop: 5108, Start Num: 10

Candidate Starts for Edtherson\_9:

(Start: 10 @4530 has 17 MA's), (18, 4656), (41, 4989),

Gene: GMA4\_67 Start: 43840, Stop: 44490, Start Num: 6

Candidate Starts for GMA4 67:

(6, 43840), (8, 43870), (20, 44059), (21, 44065), (28, 44122), (37, 44284),

Gene: Girr 32 Start: 27712, Stop: 28464, Start Num: 3

Candidate Starts for Girr\_32:

(Start: 3 @27712 has 3 MA's), (7, 27775), (9, 27823), (13, 27871), (21, 27982), (23, 27991), (31, 28117), (43, 28384),

Gene: Graduation\_10 Start: 4816, Stop: 5397, Start Num: 10

Candidate Starts for Graduation 10:

(Start: 10 @4816 has 17 MA's), (15, 4918), (17, 4939), (26, 4987), (41, 5266),

Gene: Gwendoluna 9 Start: 4700, Stop: 5281, Start Num: 10

Candidate Starts for Gwendoluna\_9:

(Start: 10 @4700 has 17 MA's), (15, 4802), (17, 4823), (26, 4871), (41, 5150),

Gene: Hamulus\_31 Start: 27654, Stop: 28418, Start Num: 2

Candidate Starts for Hamulus\_31:

(Start: 1 @27627 has 1 MA's), (Start: 2 @27654 has 4 MA's), (7, 27729), (9, 27777), (13, 27825), (21, 27936), (23, 27945), (31, 28071), (43, 28338),

Gene: Hermia 9 Start: 4783, Stop: 5361, Start Num: 10

Candidate Starts for Hermia\_9:

(Start: 10 @4783 has 17 MA's), (18, 4909), (41, 5242),

Gene: KBG\_9 Start: 4959, Stop: 5540, Start Num: 10

Candidate Starts for KBG\_9:

(Start: 10 @4959 has 17 MA's), (15, 5061), (17, 5082), (26, 5130), (41, 5409),

Gene: Kenmech\_10 Start: 4617, Stop: 5195, Start Num: 10

Candidate Starts for Kenmech\_10:

(Start: 10 @4617 has 17 MA's), (18, 4743), (41, 5076),

Gene: Kingsley\_29 Start: 26483, Stop: 27247, Start Num: 2

Candidate Starts for Kingsley\_29:

(Start: 1 @26456 has 1 MA's), (Start: 2 @26483 has 4 MA's), (7, 26558), (9, 26606), (13, 26654), (21, 26765), (23, 26774), (31, 26900), (43, 27167),

Gene: LilBib\_8 Start: 4381, Stop: 4959, Start Num: 10

Candidate Starts for LilBib\_8:

(Start: 10 @4381 has 17 MA's), (18, 4507), (41, 4840),

Gene: LilSpotty\_83 Start: 48505, Stop: 49212, Start Num: 16

Candidate Starts for LilSpotty\_83:

(Start: 16 @48505 has 1 MA's), (30, 48661), (33, 48739), (34, 48757), (35, 48781), (38, 48865), (39, 48877), (40, 48886), (42, 48922), (44, 49051), (45, 49180),

Gene: MisterCuddles 32 Start: 27712, Stop: 28464, Start Num: 3

Candidate Starts for MisterCuddles\_32:

(Start: 3 @27712 has 3 MA's), (7, 27775), (9, 27823), (13, 27871), (21, 27982), (23, 27991), (31, 28117), (43, 28384),

Gene: Monet\_9 Start: 4498, Stop: 5076, Start Num: 10

Candidate Starts for Monet\_9:

(Start: 10 @4498 has 17 MA's), (18, 4624), (41, 4957),

Gene: Mozy\_32 Start: 27800, Stop: 28405, Start Num: 11

Candidate Starts for Mozy 32:

(7, 27716), (Start: 11 @27800 has 1 MA's), (14, 27872), (17, 27896), (19, 27902), (24, 27932), (27, 27953), (28, 27974), (32, 28061),

Gene: Mozy\_92 Start: 49652, Stop: 50401, Start Num: 5

Candidate Starts for Mozy\_92:

(4, 49640), (Start: 5 @49652 has 1 MA's), (12, 49799), (22, 49931), (25, 49946), (29, 49991), (36, 50144).

Gene: Nerujay\_9 Start: 4453, Stop: 5034, Start Num: 10

Candidate Starts for Nerujay 9:

(Start: 10 @4453 has 17 MA's), (15, 4555), (17, 4576), (26, 4624), (41, 4903),

Gene: Norz\_9 Start: 4534, Stop: 5112, Start Num: 10

Candidate Starts for Norz\_9:

(Start: 10 @4534 has 17 MA's), (18, 4660), (41, 4993),

Gene: Ovechkin 31 Start: 27645, Stop: 28436, Start Num: 1

Candidate Starts for Ovechkin\_31:

(Start: 1 @27645 has 1 MA's), (Start: 2 @27672 has 4 MA's), (7, 27747), (9, 27795), (13, 27843), (21, 27954), (23, 27963), (31, 28089), (43, 28356),

Gene: Papez\_9 Start: 5271, Stop: 5849, Start Num: 10

Candidate Starts for Papez\_9:

(Start: 10 @5271 has 17 MA's), (18, 5397), (41, 5730),

Gene: QTRlifeCrisis 11 Start: 4494, Stop: 5075, Start Num: 10

Candidate Starts for QTRlifeCrisis\_11:

(Start: 10 @4494 has 17 MA's), (15, 4596), (17, 4617), (26, 4665), (41, 4944),

Gene: Ruby\_32 Start: 27712, Stop: 28464, Start Num: 3

Candidate Starts for Ruby\_32:

(Start: 3 @27712 has 3 MA's), (7, 27775), (9, 27823), (13, 27871), (21, 27982), (23, 27991), (31, 28117), (43, 28384),

Gene: Solon\_8 Start: 4653, Stop: 5234, Start Num: 10

Candidate Starts for Solon\_8:

(Start: 10 @4653 has 17 MA's), (15, 4755), (17, 4776), (26, 4824), (41, 5103),

Gene: Soul22\_35 Start: 27040, Stop: 27804, Start Num: 2

Candidate Starts for Soul22\_35:

(Start: 1 @27013 has 1 MA's), (Start: 2 @27040 has 4 MA's), (7, 27115), (9, 27163), (13, 27211), (21, 27322), (23, 27331), (31, 27457), (43, 27724),

Gene: SpikeBT\_9 Start: 4433, Stop: 5011, Start Num: 10

Candidate Starts for SpikeBT\_9:

(Start: 10 @4433 has 17 MA's), (18, 4559), (41, 4892),

Gene: Squee\_8 Start: 4160, Stop: 4741, Start Num: 10

Candidate Starts for Squee\_8:

(Start: 10 @4160 has 17 MA's), (15, 4262), (17, 4283), (26, 4331), (41, 4610),

Gene: StAnnes\_29 Start: 27239, Stop: 28003, Start Num: 2

Candidate Starts for StAnnes 29:

(Start: 1 @27212 has 1 MA's), (Start: 2 @27239 has 4 MA's), (7, 27314), (9, 27362), (13, 27410), (21, 27521), (23, 27530), (31, 27656), (43, 27923),

Gene: TheloniousMonk\_9 Start: 4484, Stop: 5062, Start Num: 10

Candidate Starts for TheloniousMonk\_9:

(Start: 10 @4484 has 17 MA's), (18, 4610), (41, 4943),

Gene: Treddle 9 Start: 4499, Stop: 5077, Start Num: 10

Candidate Starts for Treddle\_9:

(Start: 10 @4499 has 17 MA's), (18, 4625), (41, 4958),

Gene: Zeuska\_8 Start: 4378, Stop: 4959, Start Num: 10

Candidate Starts for Zeuska\_8:

(Start: 10 @4378 has 17 MA's), (15, 4480), (17, 4501), (26, 4549), (41, 4828),