

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 4165 Report

This analysis was run 04/28/24 on database version 559.

Pham number 4165 has 18 members, 2 are drafts.

Phages represented in each track:

- Track 1: Huphlepuff 76, Corazon 71, Beelzebub 78, Clarkson 75, Pringar 72
- Track 2 : JoieB 75
- Track 3 : Blackbeetle\_75, RedRaider77\_74, Raela\_75, Lilbit\_74, Gattaca\_72,
- MosMoris\_71, Tesla\_71
- Track 4 : Poise\_75, LittleLaf\_74
- Track 5: VasuNzinga 73, Marvin 70
- Track 6 : Caprice 68

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

The start number called the most often in the published annotations is 5, it was called in 10 of the 16 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

• Beelzebub\_78, Caprice\_68, Clarkson\_75, Corazon\_71, Huphlepuff\_76, JoieB\_75, LittleLaf\_74, Marvin\_70, Poise\_75, Pringar\_72, VasuNzinga\_73,

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

• Blackbeetle\_75, Gattaca\_72, Lilbit\_74, MosMoris\_71, Raela\_75, RedRaider77\_74, Tesla\_71,

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

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## **Summary by start number:**

#### Start 4:

- Found in 9 of 18 (50.0%) of genes in pham
- Manual Annotations of this start: 6 of 16
- Called 77.8% of time when present
- Phage (with cluster) where this start called: Blackbeetle\_75 (S), Gattaca\_72 (S), Lilbit\_74 (S), MosMoris\_71 (S), Raela\_75 (S), RedRaider77\_74 (S), Tesla\_71 (S),

### Start 5:

- Found in 18 of 18 (100.0%) of genes in pham
- Manual Annotations of this start: 10 of 16
- Called 61.1% of time when present
- Phage (with cluster) where this start called: Beelzebub\_78 (S), Caprice\_68 (S), Clarkson\_75 (S), Corazon\_71 (S), Huphlepuff\_76 (S), JoieB\_75 (S), LittleLaf\_74 (S), Marvin\_70 (S), Poise\_75 (S), Pringar\_72 (S), VasuNzinga\_73 (S),

### **Summary by clusters:**

There is one cluster represented in this pham: S

Info for manual annotations of cluster S:

- •Start number 4 was manually annotated 6 times for cluster S.
- •Start number 5 was manually annotated 10 times for cluster S.

#### Gene Information:

Gene: Beelzebub\_78 Start: 41743, Stop: 41946, Start Num: 5

Candidate Starts for Beelzebub\_78:

(Start: 5 @ 41743 has 10 MA's), (6, 41764), (7, 41830), (8, 41839), (9, 41857), (10, 41914),

Gene: Blackbeetle\_75 Start: 41086, Stop: 41295, Start Num: 4

Candidate Starts for Blackbeetle\_75:

(3, 41062), (Start: 4 @41086 has 6 MA's), (Start: 5 @41092 has 10 MA's), (6, 41113), (7, 41179), (8, 41188), (9, 41206), (10, 41263),

Gene: Caprice\_68 Start: 41042, Stop: 41245, Start Num: 5

Candidate Starts for Caprice\_68:

(1, 40934), (Start: 5 @41042 has 10 MA's), (6, 41063), (7, 41129), (8, 41138), (9, 41156), (10, 41213),

Gene: Clarkson 75 Start: 41423, Stop: 41626, Start Num: 5

Candidate Starts for Clarkson 75:

(Start: 5 @41423 has 10 MA's), (6, 41444), (7, 41510), (8, 41519), (9, 41537), (10, 41594),

Gene: Corazon\_71 Start: 41617, Stop: 41820, Start Num: 5

Candidate Starts for Corazon\_71:

(Start: 5 @ 41617 has 10 MA's), (6, 41638), (7, 41704), (8, 41713), (9, 41731), (10, 41788),

Gene: Gattaca\_72 Start: 41190, Stop: 41399, Start Num: 4

Candidate Starts for Gattaca 72:

(3, 41166), (Start: 4 @41190 has 6 MA's), (Start: 5 @41196 has 10 MA's), (6, 41217), (7, 41283), (8, 41292), (9, 41310), (10, 41367),

Gene: Huphlepuff\_76 Start: 41228, Stop: 41431, Start Num: 5

Candidate Starts for Huphlepuff\_76:

(Start: 5 @41228 has 10 MA's), (6, 41249), (7, 41315), (8, 41324), (9, 41342), (10, 41399),

Gene: JoieB 75 Start: 41679, Stop: 41882, Start Num: 5

Candidate Starts for JoieB 75:

(2, 41574), (Start: 5 @ 41679 has 10 MA's), (6, 41700), (7, 41766), (8, 41775), (9, 41793), (10, 41850),

Gene: Lilbit\_74 Start: 41770, Stop: 41979, Start Num: 4

Candidate Starts for Lilbit 74:

(3, 41746), (Start: 4 @41770 has 6 MA's), (Start: 5 @41776 has 10 MA's), (6, 41797), (7, 41863), (8, 41872), (9, 41890), (10, 41947),

Gene: LittleLaf 74 Start: 41505, Stop: 41708, Start Num: 5

Candidate Starts for LittleLaf 74:

(3, 41475), (Start: 4 @41499 has 6 MA's), (Start: 5 @41505 has 10 MA's), (6, 41526), (7, 41592), (8, 41601), (9, 41619), (10, 41676),

Gene: Marvin 70 Start: 41313, Stop: 41516, Start Num: 5

Candidate Starts for Marvin 70:

(Start: 5 @ 41313 has 10 MA's), (6, 41334), (7, 41400), (8, 41409), (9, 41427), (10, 41484),

Gene: MosMoris\_71 Start: 41190, Stop: 41399, Start Num: 4

Candidate Starts for MosMoris\_71:

(3, 41166), (Start: 4 @41190 has 6 MA's), (Start: 5 @41196 has 10 MA's), (6, 41217), (7, 41283), (8, 41292), (9, 41310), (10, 41367),

Gene: Poise\_75 Start: 41092, Stop: 41295, Start Num: 5

Candidate Starts for Poise 75:

(3, 41062), (Start: 4 @41086 has 6 MA's), (Start: 5 @41092 has 10 MA's), (6, 41113), (7, 41179), (8, 41188), (9, 41206), (10, 41263),

Gene: Pringar\_72 Start: 41029, Stop: 41232, Start Num: 5

Candidate Starts for Pringar\_72:

(Start: 5 @ 41029 has 10 MA's), (6, 41050), (7, 41116), (8, 41125), (9, 41143), (10, 41200),

Gene: Raela\_75 Start: 41643, Stop: 41852, Start Num: 4

Candidate Starts for Raela\_75:

(3, 41619), (Start: 4 @41643 has 6 MA's), (Start: 5 @41649 has 10 MA's), (6, 41670), (7, 41736), (8, 41745), (9, 41763), (10, 41820),

Gene: RedRaider77 74 Start: 41031, Stop: 41240, Start Num: 4

Candidate Starts for RedRaider77 74:

(3, 41007), (Start: 4 @41031 has 6 MA's), (Start: 5 @41037 has 10 MA's), (6, 41058), (7, 41124), (8, 41133), (9, 41151), (10, 41208),

Gene: Tesla\_71 Start: 40880, Stop: 41089, Start Num: 4

Candidate Starts for Tesla\_71:

(3, 40856), (Start: 4 @40880 has 6 MA's), (Start: 5 @40886 has 10 MA's), (6, 40907), (7, 40973), (8, 40982), (9, 41000), (10, 41057),

Gene: VasuNzinga 73 Start: 40987, Stop: 41190, Start Num: 5

Candidate Starts for VasuNzinga 73:

(Start: 5 @ 40987 has 10 MA's), (6, 41008), (7, 41074), (8, 41083), (9, 41101), (10, 41158),