



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 173041 Report

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

Pham number 173041 has 35 members, 2 are drafts.

Phages represented in each track:

- Track 1 : Girafales\_98, Quico\_98, Florinda\_101
- Track 2 : Kimberlium\_93, EricMillard\_69, Pound\_70, Optimus\_74, Pacc40\_87, Thibault\_62, Kersh\_95
- Track 3 : Batiatus\_89, Hegedechwinu\_91
- Track 4 : SG4\_92, Pollywog\_93, Ramsey\_96
- Track 5 : Bobi\_94
- Track 6 : ShiLan\_92, James\_93
- Track 7 : Llama\_98, Ochi17\_97
- Track 8 : Ovechkin\_95
- Track 9 : ByChance\_79
- Track 10 : Llij\_87, Mutaforma13\_92, Hades\_88
- Track 11 : Mozy\_97
- Track 12 : DotProduct\_85
- Track 13 : Clifton\_82
- Track 14 : Ardmore\_76
- Track 15 : Sparkdehlily\_99
- Track 16 : Che9d\_101
- Track 17 : Duke13\_72
- Track 18 : Constella\_57
- Track 19 : Bagrid\_68
- Track 20 : BAKA\_74

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

The start number called the most often in the published annotations is 3, it was called in 32 of the 33 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Ardmore\_76, BAKA\_74, Batiatus\_89, Bobi\_94, ByChance\_79, Che9d\_101, Clifton\_82, Constella\_57, DotProduct\_85, EricMillard\_69, Florinda\_101, Girafales\_98, Hades\_88, Hegedechwinu\_91, James\_93, Kersh\_95, Kimberlium\_93, Llama\_98, Llij\_87, Mozy\_97, Mutaforma13\_92, Ochi17\_97, Optimus\_74, Ovechkin\_95, Pacc40\_87, Pollywog\_93, Pound\_70, Quico\_98, Ramsey\_96, SG4\_92, ShiLan\_92, Sparkdehlily\_99, Thibault\_62,

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

- Bagrid\_68, Duke13\_72,

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

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### Summary by start number:

Start 3:

- Found in 35 of 35 ( 100.0% ) of genes in pham
- Manual Annotations of this start: 32 of 33
- Called 94.3% of time when present
- Phage (with cluster) where this start called: Ardmore\_76 (F1), BAKA\_74 (J), Batiatus\_89 (F1), Bobi\_94 (F1), ByChance\_79 (F1), Che9d\_101 (F2), Clifton\_82 (F1), Constella\_57 (J), DotProduct\_85 (F1), EricMillard\_69 (J), Florinda\_101 (F1), Girafales\_98 (F1), Hades\_88 (F1), Hegedechwinu\_91 (F1), James\_93 (F1), Kersh\_95 (F1), Kimberlium\_93 (F1), Llama\_98 (F1), Llij\_87 (F1), Mozy\_97 (F1), Mutaforma13\_92 (F1), Ochi17\_97 (F1), Optimus\_74 (J), Ovechkin\_95 (F1), Pacc40\_87 (F1), Pollywog\_93 (F1), Pound\_70 (J), Quico\_98 (F1), Ramsey\_96 (F1), SG4\_92 (F1), ShiLan\_92 (F1), Sparkdehlily\_99 (F1), Thibault\_62 (J),

Start 5:

- Found in 34 of 35 ( 97.1% ) of genes in pham
- Manual Annotations of this start: 1 of 33
- Called 5.9% of time when present
- Phage (with cluster) where this start called: Bagrid\_68 (J), Duke13\_72 (J),

### Summary by clusters:

There are 3 clusters represented in this pham: F1, F2, J,

Info for manual annotations of cluster F1:

- Start number 3 was manually annotated 25 times for cluster F1.

Info for manual annotations of cluster F2:

- Start number 3 was manually annotated 1 time for cluster F2.

Info for manual annotations of cluster J:

- Start number 3 was manually annotated 6 times for cluster J.
- Start number 5 was manually annotated 1 time for cluster J.

### Gene Information:

Gene: Ardmore\_76 Start: 46009, Stop: 46302, Start Num: 3

Candidate Starts for Ardmore\_76:

(2, 45904), (Start: 3 @46009 has 32 MA's), (4, 46018), (Start: 5 @46069 has 1 MA's), (15, 46240), (16, 46264),

Gene: BAKA\_74 Start: 50332, Stop: 49997, Start Num: 3

Candidate Starts for BAKA\_74:

(Start: 3 @50332 has 32 MA's), (4, 50323), (Start: 5 @50272 has 1 MA's), (16, 50074),

Gene: Bagrid\_68 Start: 49050, Stop: 48775, Start Num: 5

Candidate Starts for Bagrid\_68:

(Start: 3 @49110 has 32 MA's), (4, 49101), (Start: 5 @49050 has 1 MA's), (16, 48852),

Gene: Batiatus\_89 Start: 51111, Stop: 51407, Start Num: 3

Candidate Starts for Batiatus\_89:

(Start: 3 @51111 has 32 MA's), (4, 51120), (Start: 5 @51171 has 1 MA's), (15, 51342), (16, 51366),

Gene: Bobi\_94 Start: 52628, Stop: 53020, Start Num: 3

Candidate Starts for Bobi\_94:

(Start: 3 @52628 has 32 MA's), (4, 52637), (6, 52691), (7, 52700), (8, 52712), (11, 52805), (12, 52811), (14, 52868), (17, 52919), (19, 52979),

Gene: ByChance\_79 Start: 46220, Stop: 46609, Start Num: 3

Candidate Starts for ByChance\_79:

(Start: 3 @46220 has 32 MA's), (4, 46229), (Start: 5 @46280 has 1 MA's), (7, 46289), (11, 46394), (12, 46400), (14, 46457), (17, 46508), (19, 46568),

Gene: Che9d\_101 Start: 50979, Stop: 51272, Start Num: 3

Candidate Starts for Che9d\_101:

(Start: 3 @50979 has 32 MA's), (4, 50988), (Start: 5 @51039 has 1 MA's), (15, 51213), (16, 51237),

Gene: Clifton\_82 Start: 49376, Stop: 49672, Start Num: 3

Candidate Starts for Clifton\_82:

(Start: 3 @49376 has 32 MA's), (4, 49385), (Start: 5 @49436 has 1 MA's), (9, 49490), (13, 49574), (16, 49631),

Gene: Constella\_57 Start: 44626, Stop: 44291, Start Num: 3

Candidate Starts for Constella\_57:

(Start: 3 @44626 has 32 MA's), (4, 44617), (Start: 5 @44566 has 1 MA's), (16, 44368),

Gene: DotProduct\_85 Start: 49272, Stop: 49568, Start Num: 3

Candidate Starts for DotProduct\_85:

(Start: 3 @49272 has 32 MA's), (4, 49281), (Start: 5 @49332 has 1 MA's), (16, 49530),

Gene: Duke13\_72 Start: 49484, Stop: 49209, Start Num: 5

Candidate Starts for Duke13\_72:

(Start: 3 @49544 has 32 MA's), (4, 49535), (Start: 5 @49484 has 1 MA's), (16, 49286),

Gene: EricMillard\_69 Start: 49963, Stop: 49628, Start Num: 3

Candidate Starts for EricMillard\_69:

(Start: 3 @49963 has 32 MA's), (4, 49954), (Start: 5 @49903 has 1 MA's), (16, 49705),

Gene: Florinda\_101 Start: 53017, Stop: 53307, Start Num: 3

Candidate Starts for Florinda\_101:

(2, 52912), (Start: 3 @53017 has 32 MA's), (4, 53026), (Start: 5 @53077 has 1 MA's), (15, 53248), (16, 53272), (18, 53302),

Gene: Girafales\_98 Start: 52622, Stop: 52912, Start Num: 3

Candidate Starts for Girafales\_98:

(2, 52517), (Start: 3 @52622 has 32 MA's), (4, 52631), (Start: 5 @52682 has 1 MA's), (15, 52853), (16, 52877), (18, 52907),

Gene: Hades\_88 Start: 48876, Stop: 49172, Start Num: 3

Candidate Starts for Hades\_88:

(Start: 3 @48876 has 32 MA's), (4, 48885), (Start: 5 @48936 has 1 MA's), (15, 49107), (16, 49131),

Gene: Hegedechwinu\_91 Start: 50212, Stop: 50508, Start Num: 3

Candidate Starts for Hegedechwinu\_91:

(Start: 3 @50212 has 32 MA's), (4, 50221), (Start: 5 @50272 has 1 MA's), (15, 50443), (16, 50467),

Gene: James\_93 Start: 52977, Stop: 53273, Start Num: 3

Candidate Starts for James\_93:

(Start: 3 @52977 has 32 MA's), (4, 52986), (Start: 5 @53037 has 1 MA's), (15, 53208), (16, 53232),

Gene: Kersh\_95 Start: 54006, Stop: 54305, Start Num: 3

Candidate Starts for Kersh\_95:

(Start: 3 @54006 has 32 MA's), (4, 54015), (Start: 5 @54066 has 1 MA's), (16, 54264),

Gene: Kimberlium\_93 Start: 51162, Stop: 51458, Start Num: 3

Candidate Starts for Kimberlium\_93:

(Start: 3 @51162 has 32 MA's), (4, 51171), (Start: 5 @51222 has 1 MA's), (16, 51420),

Gene: Llama\_98 Start: 52582, Stop: 52878, Start Num: 3

Candidate Starts for Llama\_98:

(Start: 3 @52582 has 32 MA's), (4, 52591), (Start: 5 @52642 has 1 MA's), (9, 52696), (13, 52780), (16, 52837),

Gene: Llij\_87 Start: 50129, Stop: 50419, Start Num: 3

Candidate Starts for Llij\_87:

(Start: 3 @50129 has 32 MA's), (4, 50138), (Start: 5 @50189 has 1 MA's), (15, 50360), (16, 50384),

Gene: Mozy\_97 Start: 51483, Stop: 51770, Start Num: 3

Candidate Starts for Mozy\_97:

(Start: 3 @51483 has 32 MA's), (4, 51492), (Start: 5 @51543 has 1 MA's), (10, 51633), (15, 51717), (16, 51741),

Gene: Mutaforma13\_92 Start: 50818, Stop: 51102, Start Num: 3

Candidate Starts for Mutaforma13\_92:

(Start: 3 @50818 has 32 MA's), (4, 50827), (Start: 5 @50878 has 1 MA's), (15, 51049), (16, 51073),

Gene: Ochi17\_97 Start: 52177, Stop: 52473, Start Num: 3

Candidate Starts for Ochi17\_97:

(Start: 3 @52177 has 32 MA's), (4, 52186), (Start: 5 @52237 has 1 MA's), (9, 52291), (13, 52375), (16, 52432),

Gene: Optimus\_74 Start: 50678, Stop: 50343, Start Num: 3

Candidate Starts for Optimus\_74:

(Start: 3 @50678 has 32 MA's), (4, 50669), (Start: 5 @50618 has 1 MA's), (16, 50420),

Gene: Ovechkin\_95 Start: 52388, Stop: 52684, Start Num: 3

Candidate Starts for Ovechkin\_95:

(1, 52226), (Start: 3 @52388 has 32 MA's), (4, 52397), (Start: 5 @52448 has 1 MA's), (9, 52502), (13, 52586), (16, 52643),

Gene: Pacc40\_87 Start: 52144, Stop: 52443, Start Num: 3

Candidate Starts for Pacc40\_87:

(Start: 3 @52144 has 32 MA's), (4, 52153), (Start: 5 @52204 has 1 MA's), (16, 52402),

Gene: Pollywog\_93 Start: 52973, Stop: 53269, Start Num: 3

Candidate Starts for Pollywog\_93:

(Start: 3 @52973 has 32 MA's), (4, 52982), (Start: 5 @53033 has 1 MA's), (15, 53204), (16, 53228),

Gene: Pound\_70 Start: 51651, Stop: 51316, Start Num: 3

Candidate Starts for Pound\_70:

(Start: 3 @51651 has 32 MA's), (4, 51642), (Start: 5 @51591 has 1 MA's), (16, 51393),

Gene: Quico\_98 Start: 52837, Stop: 53127, Start Num: 3

Candidate Starts for Quico\_98:

(2, 52732), (Start: 3 @52837 has 32 MA's), (4, 52846), (Start: 5 @52897 has 1 MA's), (15, 53068), (16, 53092), (18, 53122),

Gene: Ramsey\_96 Start: 53396, Stop: 53689, Start Num: 3

Candidate Starts for Ramsey\_96:

(Start: 3 @53396 has 32 MA's), (4, 53405), (Start: 5 @53456 has 1 MA's), (15, 53627), (16, 53651),

Gene: SG4\_92 Start: 52390, Stop: 52686, Start Num: 3

Candidate Starts for SG4\_92:

(Start: 3 @52390 has 32 MA's), (4, 52399), (Start: 5 @52450 has 1 MA's), (15, 52621), (16, 52645),

Gene: ShiLan\_92 Start: 53432, Stop: 53728, Start Num: 3

Candidate Starts for ShiLan\_92:

(Start: 3 @53432 has 32 MA's), (4, 53441), (Start: 5 @53492 has 1 MA's), (15, 53663), (16, 53687),

Gene: Sparkdehlily\_99 Start: 50589, Stop: 50888, Start Num: 3

Candidate Starts for Sparkdehlily\_99:

(Start: 3 @50589 has 32 MA's), (4, 50598), (Start: 5 @50649 has 1 MA's), (16, 50847),

Gene: Thibault\_62 Start: 46268, Stop: 45933, Start Num: 3

Candidate Starts for Thibault\_62:

(Start: 3 @46268 has 32 MA's), (4, 46259), (Start: 5 @46208 has 1 MA's), (16, 46010),