Pham 154784


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 154784 Report

This analysis was run 04/12/24 on database version 558.
Pham number 154784 has 48 members, 4 are drafts.
Phages represented in each track:

- Track 1 : OhShagHennessy_116, Acquire49_124, UPIE_123
- Track 2 : LeBron_123
- Track 3 : DrSeegs _130, Miley16_132, LilDestine_129, Gardann_132,

BigCheese_131, Itos 132, Netyap_130, Faith1_130, Vetrix_132, Gabriela_132,
Zakai_134, Lewan_1 $\overline{3} 4$, Wilder_13̄3, Winky_13̄2, Wigglewiḡgle_133, Breez̄ona_132, Kahlid_132, Nicholasp3_133, Lōadrie_133

- Track 4 : Archie_131
- Track 5 : Crossroads_135
- Track 6 : MkaliMitinis $\overline{3} \_134$
- Track 7 : ZhongYanYuan_129, Tourach_134
- Track 8 : Bazzle_129
- Track 9 : Bellis_123, Clautastrophe_125, Jobypre_127, Finnry_124, Snenia_125,

Samty_124, Dyō̄dafos_143, Chaser_140, Krypton555_128, Jū̄ie_126,
Whirlwind_126, Lumos_126, MsGreen_127

- Track 10 : DuncansLeg_126, Ellson_124
- Track 11 : Lolly9_126, MiniLon_130
- Track 12 : Aegeus_137, Baudēaire_137


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

The start number called the most often in the published annotations is 7 , it was called in 38 of the 44 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Acquire49_124, Bazzle_129, Bellis_123, BigCheese_131, Breezona_132, Chaser_140, Clautastrophe_125, DrS̄eegs_130, DuncansLeg_126, DyoEdafos_143, Ellson_124, Faith1_130, Finnry_124, Gabriela_132, Gardann_132, Itos_132, Jobypre_127, Jubie_126, Kahlid_132, Krypton555_128, Lewan_134, LilDestine_129, Loadrie_133, Lolly9_126, Lumos_126, Miley16_132, MiniLon_130, MsGreen_12 7, Netyap_130, Nicholāsp3_133, OhShagHennessy_116, Samty_124, Snenia_125, Tourach_134, UPIE_123, Vetrix_132, Whirlwind_126, Wigglewiggle_133, Wilder_133, Winky_132, Zakai_134, ZhongYanYuan_129,

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

- Archie_131, Crossroads_135, LeBron_123, MkaliMitinis3_134,

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

- Aegeus_137, Baudelaire_137,


## Summary by start number:

Start 6:

- Found in 25 of 48 ( $52.1 \%$ ) of genes in pham
- Manual Annotations of this start: 2 of 44
- Called $8.0 \%$ of time when present
- Phage (with cluster) where this start called: Archie_131 (L2), MkaliMitinis3_134 (L2),

Start 7:

- Found in 46 of 48 ( $95.8 \%$ ) of genes in pham
- Manual Annotations of this start: 38 of 44
- Called $91.3 \%$ of time when present
- Phage (with cluster) where this start called: Acquire49-124 (L1), Bazzle_129 (L2),

Bellis_123 (L3), BigCheese_131 (L2), Breezona_132 (L̄2), Chaser_140 (L4),
Clautāstrophe 125 (L3), DrS̄eegs 130 (L2), DuncansLeg_126 (L3), DyoEdafos_143
(L4), Ellson_124 (L3), Faith1_130 (L2), Finnry 124 (L3), Gabriela_132 (L2),
Gardann_1 $\overline{3} 2$ (L2), Itos_132 (L2), Jobypre_127 (L3), Jubie_126 (LЗ3), Kahlid_132
(L2), Krypton555_128 (L3), Lewan_134 (L̄2), LilDestine_129 (L2), Loadrie_1 $\overline{3} 3$ (L2),
Lolly9_126 (L3), Lumos_126 (L3), Miley16_132 (L2), MiniLon_130 (L3),
MsGreen_127 (L3), Netyap_130 (L2), Nicholasp3_133 (L2), OhShagHennessy_116
(L1), Samty 124 (L3), Snenia_125 (L3), Tourach_134 (L2), UPIE_123 (L1),
Vetrix_132 (L2), Whirlwind_126 (L3), Wigglewiggle_133 (L2), Wilder_133 (L2),
Winky_132 (L2), Zakai_134 (L2), ZhongYanYuan_129 (L2),
Start 8:

- Found in 1 of 48 ( $2.1 \%$ ) of genes in pham
- Manual Annotations of this start: 1 of 44
- Called $100.0 \%$ of time when present
- Phage (with cluster) where this start called: LeBron_123 (L1),

Start 9:

- Found in 2 of 48 ( $4.2 \%$ ) of genes in pham
- Manual Annotations of this start: 2 of 44
- Called $100.0 \%$ of time when present
- Phage (with cluster) where this start called: Aegeus_137 (L5), Baudelaire_137 (L5),

Start 10:

- Found in 48 of 48 ( $100.0 \%$ ) of genes in pham
- Manual Annotations of this start: 1 of 44
- Called $2.1 \%$ of time when present
- Phage (with cluster) where this start called: Crossroads_135 (L2),


## Summary by clusters:

There are 5 clusters represented in this pham: L4, L5, L2, L3, L1,
Info for manual annotations of cluster L1:
-Start number 7 was manually annotated 3 times for cluster L1.
-Start number 8 was manually annotated 1 time for cluster L1.
Info for manual annotations of cluster L2:

- Start number 6 was manually annotated 2 times for cluster L2.
- Start number 7 was manually annotated 21 times for cluster L2.
-Start number 10 was manually annotated 1 time for cluster L2.
Info for manual annotations of cluster L3:
- Start number 7 was manually annotated 12 times for cluster L3.

Info for manual annotations of cluster L4:

- Start number 7 was manually annotated 2 times for cluster L4.

Info for manual annotations of cluster L5:

- Start number 9 was manually annotated 2 times for cluster L5.


## Gene Information:

Gene: Acquire49_124 Start: 67126, Stop: 66935, Start Num: 7
Candidate Starts for Acquire49_124:
(3, 67204), (Start: 7 @67126 has 38 MA's), (Start: 10 @67084 has 1 MA's),
Gene: Aegeus_137 Start: 68501, Stop: 68322, Start Num: 9
Candidate Starts for Aegeus_137:
(5, 68546), (Start: 9 @68501 has 2 MA's), (Start: 10 @68465 has 1 MA's), (13, 68420), (14, 68384),
Gene: Archie_131 Start: 69784, Stop: 69581, Start Num: 6
Candidate Starts for Archie_131:
(Start: 6 @69784 has 2 MA's), (Start: 7 @69775 has 38 MA's), (Start: 10 @69730 has 1 MA's), (12, 69706),

Gene: Baudelaire_137 Start: 68501, Stop: 68322, Start Num: 9
Candidate Starts for Baudelaire_137:
(5, 68546), (Start: 9 @68501 has 2 MA's), (Start: 10 @68465 has 1 MA's), (13, 68420), (14, 68384),
Gene: Bazzle_129 Start: 69949, Stop: 69755, Start Num: 7
Candidate Starts for Bazzle_129:
(Start: 6 @69958 has 2 MA's), (Start: 7 @69949 has 38 MA's), (Start: 10 @69904 has 1 MA's), (12, 69880), (13, 69856),

Gene: Bellis_123 Start: 68769, Stop: 68575, Start Num: 7
Candidate Starts for Bellis_123:
(Start: 7 @68769 has 38 MA's), (Start: 10 @68724 has 1 MA's), (13, 68676),
Gene: BigCheese_131 Start: 69731, Stop: 69537, Start Num: 7
Candidate Starts for BigCheese_131:
(Start: 6 @69740 has 2 MA's), (STart: 7 @69731 has 38 MA's), (Start: 10 @69686 has 1 MA's), (13, 69638),

Gene: Breezona_132 Start: 70066, Stop: 69872, Start Num: 7
Candidate Starts for Breezona_132:
(Start: 6 @70075 has 2 MA's), (Start: 7 @70066 has 38 MA's), (Start: 10 @70021 has 1 MA's), (13, 69973),

Gene: Chaser_140 Start: 71460, Stop: 71266, Start Num: 7
Candidate Starts for Chaser_140:
(Start: 7 @71460 has 38 MA's), (Start: 10 @71415 has 1 MA's), (13, 71367),
Gene: Clautastrophe_125 Start: 68880, Stop: 68686, Start Num: 7
Candidate Starts for C Clautastrophe_125:
(Start: 7 @68880 has 38 MA's), (Start: 10 @68835 has 1 MA's), (13, 68787),
Gene: Crossroads_135 Start: 69955, Stop: 69806, Start Num: 10
Candidate Starts for Crossroads_135:
(Start: 6 @70009 has 2 MA's), (Start: 7 @70000 has 38 MA's), (Start: 10 @69955 has 1 MA's), (13, 69907),

Gene: DrSeegs_130 Start: 70066, Stop: 69872, Start Num: 7
Candidate Starts for DrSeegs_130:
(Start: 6 @ 70075 has 2 MA's), (Start: 7 @ 70066 has 38 MA's), (Start: 10 @70021 has 1 MA's), (13, 69973),

Gene: DuncansLeg_126 Start: 69063, Stop: 68869, Start Num: 7
Candidate Starts for DuncansLeg_126:
(Start: 7 @69063 has 38 MA's), (Start: 10 @69018 has 1 MA's), (11, 69015), (13, 68970),
Gene: DyoEdafos_143 Start: 71053, Stop: 70859, Start Num: 7
Candidate Starts for DyoEdafos_143:
(Start: 7 @ 71053 has 38 MA's), (Start: $10 @ 71008$ has 1 MA's), (13, 70960),
Gene: Ellson_124 Start: 69319, Stop: 69125, Start Num: 7
Candidate Starts for Ellson_124:
(Start: 7 @69319 has 38 MA's), (Start: 10 @69274 has 1 MA's), (11, 69271), (13, 69226),
Gene: Faith1_130 Start: 69374, Stop: 69180, Start Num: 7
Candidate Starts for Faith1_130:
(Start: 6 @69383 has 2 MA's), (Start: 7 @69374 has 38 MA's), (Start: 10 @69329 has 1 MA's), (13, 69281),

Gene: Finnry_124 Start: 69117, Stop: 68923, Start Num: 7
Candidate Starts for Finnry_124:
(Start: 7 @69117 has 38 MA's), (Start: 10 @69072 has 1 MA's), (13, 69024),
Gene: Gabriela_132 Start: 69162, Stop: 68968, Start Num: 7
Candidate Starts for Gabriela_132:
(Start: 6 @69171 has 2 MA's), (Start: 7 @69162 has 38 MA's), (Start: 10 @69117 has 1 MA's), (13, 69069),

Gene: Gardann_132 Start: 69839, Stop: 69645, Start Num: 7
Candidate Starts for Gardann_132:
(Start: 6 @69848 has 2 MA's), (Start: 7 @69839 has 38 MA's), (Start: 10 @69794 has 1 MA's), (13, 69746),

Gene: Itos_132 Start: 68280, Stop: 68086, Start Num: 7

Candidate Starts for Itos_132:
(Start: 6 @68289 has 2 MA's), (Start: 7 @68280 has 38 MA's), (Start: 10 @68235 has 1 MA's), (13, 68187),

Gene: Jobypre_127 Start: 68878, Stop: 68684, Start Num: 7
Candidate Starts for Jobypre_127:
(Start: 7 @68878 has 38 MA's), (Start: 10 @68833 has 1 MA's), (13, 68785),
Gene: Jubie_126 Start: 69013, Stop: 68819, Start Num: 7
Candidate Starts for Jubie_126:
(Start: 7 @69013 has 38 MA's), (Start: 10 @68968 has 1 MA's), (13, 68920),
Gene: Kahlid_132 Start: 69678, Stop: 69484, Start Num: 7
Candidate Starts for Kahlid_132:
(Start: 6 @69687 has 2 MA's), (Start: 7 @69678 has 38 MA's), (Start: 10 @69633 has 1 MA's), (13, 69585),

Gene: Krypton555_128 Start: 69259, Stop: 69065, Start Num: 7
Candidate Starts for Krypton555_128:
(Start: 7 @69259 has 38 MA's), (Start: 10 @69214 has 1 MA's), (13, 69166),
Gene: LeBron_123 Start: 66724, Stop: 66539, Start Num: 8
Candidate Starts for LeBron_123:
(3, 66808), (Start: 7 @66730 has 38 MA's), (Start: 8 @66724 has 1 MA's), (Start: 10 @66688 has 1 MA's),

Gene: Lewan_134 Start: 70357, Stop: 70163, Start Num: 7
Candidate Starts for Lewan_134:
(Start: 6 @ 70366 has 2 MA's), (Start: $7 @ 70357$ has 38 MA's), (Start: 10 @ 70312 has 1 MA's), (13, 70264),

Gene: LilDestine_129 Start: 68848, Stop: 68654, Start Num: 7
Candidate Starts for LilDestine_129:
(Start: 6 @68857 has 2 MA's), (Start: 7 @68848 has 38 MA's), (Start: 10 @68803 has 1 MA's), (13, 68755),

Gene: Loadrie_133 Start: 70390, Stop: 70196, Start Num: 7
Candidate Starts for Loadrie_133:
(Start: 6 @70399 has 2 MA's), (Start: 7 @70390 has 38 MA's), (Start: 10 @70345 has 1 MA's), (13, 70297),

Gene: Lolly9_126 Start: 69414, Stop: 69220, Start Num: 7
Candidate Starts for Lolly9_126:
(1, 69504), (2, 69501), (4, 69483), (Start: 7 @69414 has 38 MA's), (Start: 10 @69369 has 1 MA's), $(11,69366),(13,69321)$,

Gene: Lumos_126 Start: 68875, Stop: 68681, Start Num: 7
Candidate Starts for Lumos_126:
(Start: 7 @68875 has 38 MA's), (Start: 10 @68830 has 1 MA's), (13, 68782),
Gene: Miley16_132 Start: 70066, Stop: 69872, Start Num: 7
Candidate Starts for Miley16_132:
(Start: 6 @70075 has 2 MA's), (Start: 7 @70066 has 38 MA's), (Start: 10 @70021 has 1 MA's), (13, 69973),

Gene: MiniLon_130 Start: 69415, Stop: 69221, Start Num: 7
Candidate Starts for MiniLon_130:
(1, 69505), (2, 69502), (4, 69484), (Start: 7 @69415 has 38 MA's), (Start: 10 @69370 has 1 MA's), $(11,69367),(13,69322)$,

Gene: MkaliMitinis3_134 Start: 69772, Stop: 69569, Start Num: 6
Candidate Starts for MkaliMitinis3_134:
(Start: 6 @69772 has 2 MA's), (Start: 7 @69763 has 38 MA's), (Start: 10 @69718 has 1 MA's), (13, 69670),

Gene: MsGreen_127 Start: 68877, Stop: 68683, Start Num: 7
Candidate Starts for MsGreen_127:
(Start: 7 @68877 has 38 MA's), (Start: 10 @68832 has 1 MA's), (13, 68784),
Gene: Netyap_130 Start: 69780, Stop: 69586, Start Num: 7
Candidate Starts for Netyap_130:
(Start: 6 @69789 has 2 MA's), (Start: 7 @69780 has 38 MA's), (Start: 10 @69735 has 1 MA's), (13, 69687),

Gene: Nicholasp3_133 Start: 69839, Stop: 69645, Start Num: 7
Candidate Starts for Nicholasp3_133:
(Start: 6 @69848 has 2 MA's), (Start: 7 @69839 has 38 MA's), (Start: 10 @69794 has 1 MA's), (13, 69746),

Gene: OhShagHennessy_116 Start: 65892, Stop: 65701, Start Num: 7
Candidate Starts for OhShagHennessy_116:
(3, 65970), (Start: 7 @65892 has 38 MA's), (Start: 10 @65850 has 1 MA's),
Gene: Samty_124 Start: 68860, Stop: 68666, Start Num: 7
Candidate Starts for Samty_124:
(Start: 7 @68860 has 38 MA's), (Start: 10 @68815 has 1 MA's), (13, 68767),
Gene: Snenia_125 Start: 68879, Stop: 68685, Start Num: 7
Candidate Starts for Snenia_125:
(Start: 7 @68879 has 38 MA's), (Start: 10 @68834 has 1 MA's), (13, 68786),
Gene: Tourach_134 Start: 71254, Stop: 71060, Start Num: 7
Candidate Starts for Tourach_134:
(Start: 6 @ 71263 has 2 MA's), (Start: 7 @ 71254 has 38 MA's), (Start: 10 @71209 has 1 MA's), (12, 71185), (13, 71161),

Gene: UPIE_123 Start: 67071, Stop: 66880, Start Num: 7
Candidate Starts for UPIE_123:
(3, 67149), (Start: 7 @67071 has 38 MA's), (Start: 10 @67029 has 1 MA's),
Gene: Vetrix_132 Start: 70376, Stop: 70182, Start Num: 7
Candidate Starts for Vetrix_132:
(Start: 6 @70385 has 2 MA's), (Start: 7 @70376 has 38 MA's), (Start: 10 @70331 has 1 MA's), (13, 70283),

Gene: Whirlwind_126 Start: 69135, Stop: 68941, Start Num: 7
Candidate Starts for Whirlwind_126:
(Start: 7 @69135 has 38 MA's), (Start: 10 @69090 has 1 MA's), ( 13,69042 ),
Gene: Wigglewiggle_133 Start: 69972, Stop: 69778, Start Num: 7
Candidate Starts for Wigglewiggle_133:
(Start: 6 @69981 has 2 MA's), (Start: 7 @69972 has 38 MA's), (Start: 10 @69927 has 1 MA's), (13, 69879),

Gene: Wilder_133 Start: 69532, Stop: 69338, Start Num: 7
Candidate Starts for Wilder_133:
(Start: 6 @69541 has 2 MA's), (Start: 7 @69532 has 38 MA's), (Start: 10 @69487 has 1 MA's), (13, 69439),

Gene: Winky_132 Start: 70067, Stop: 69873, Start Num: 7
Candidate Starts for Winky_132:
(Start: 6 @ 70076 has 2 MA's), (Start: 7 @ 70067 has 38 MA's), (Start: 10 @70022 has 1 MA's), (13, 69974),

Gene: Zakai_134 Start: 69777, Stop: 69583, Start Num: 7
Candidate Starts for Zakai_134:
(Start: 6 @69786 has 2 MA's), (Start: 7 @69777 has 38 MA's), (Start: 10 @69732 has 1 MA's), (13, 69684),

Gene: ZhongYanYuan_129 Start: 69260, Stop: 69066, Start Num: 7
Candidate Starts for ZhongYanYuan_129:
(Start: 6 @69269 has 2 MA's), (Start: 7 @69260 has 38 MA's), (Start: 10 @69215 has 1 MA's), (12, 69191), (13, 69167),

