

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 294682 Report

This analysis was run 04/18/26 on database version 643.

Pham number 294682 has 73 members, 18 are drafts.

Phages represented in each track:

- Track 1 : AbbyDaisy_99
- Track 2 : Raqqa_101
- Track 3 : PHL111M01_45, Cota_45, Supernova_45, Wizzo_44
- Track 4 : Moyashi_44
- Track 5 : Solid_45
- Track 6 : Rileysaurus_43, Aquarius_48, PHL060L00_46, PHL112N00_46, P101A_47, Leviosa_44
- Track 7 : Enoki_45, P104B_44, P104A_45, LilBandit_45, Kubed_44, P100D_47, Procrass1_45
- Track 8 : P106I_46, P100.1_47, P106M_45, P106L_45, P106C_46, P106A_45
- Track 9 : Pirate_44
- Track 10 : P100A_45
- Track 11 : PHL114L00_46
- Track 12 : Lauchelly_45
- Track 13 : Enochoraptor_43
- Track 14 : P14.4_47
- Track 15 : DrParker_45
- Track 16 : BruceLethal_44, PHL010M04_45
- Track 17 : ATCC29399BC_46, ATCC29399BT_46, P107C_44
- Track 18 : PHL067M10_45
- Track 19 : PA6_48
- Track 20 : Attacne_45, QueenBey_43, Stormborn_46
- Track 21 : MrAK_46, Spartoi_56
- Track 22 : PAS50_48
- Track 23 : P107A_45
- Track 24 : PHL113M01_44
- Track 25 : PHL071N05_45
- Track 26 : PHL037M02_45
- Track 27 : P9.1_45
- Track 28 : Ouroboros_45
- Track 29 : P1.1_45
- Track 30 : MEAK_44
- Track 31 : PAD20_48
- Track 32 : P108C_44, P105_45
- Track 33 : Keiki_45
- Track 34 : SKKY_47
- Track 35 : E6_60, G4_69, Doucette_61, B22_61

- Track 36 : McDazzle_1, Bavailard_1
- Track 37 : Zucker_98, BlackSpider_85
- Track 38 : Cassini_92
- Track 39 : BellaJr_95
- Track 40 : Merpity_82
- Track 41 : MrSmee_79, Skitty_72

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

The start number called the most often in the published annotations is 9, it was called in 50 of the 55 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- ATCC29399BC_46, ATCC29399BT_46, Aquarius_48, Attacne_45, B22_61, BlackSpider_85, BruceLethal_44, Cassini_92, Cota_45, Doucette_61, DrParker_45, E6_60, Enoki_45, G4_69, Kubed_44, Lauchelly_45, Leviosa_44, LilBandit_45, MEAK_44, Moyashi_44, MrAK_46, MrSmee_79, Ouroboros_45, P100.1_47, P100A_45, P100D_47, P101A_47, P104A_45, P104B_44, P105_45, P106A_45, P106C_46, P106I_46, P106L_45, P106M_45, P107A_45, P107C_44, P108C_44, P9.1_45, PA6_48, PAD20_48, PHL010M04_45, PHL037M02_45, PHL060L00_46, PHL067M10_45, PHL071N05_45, PHL111M01_45, PHL112N00_46, PHL114L00_46, Pirate_44, Procrass1_45, QueenBey_43, Raqqa_101, Rileysaurus_43, SKKY_47, Skitty_72, Solid_45, Spartoi_56, Stormborn_46, Supernova_45, Wizzo_44, Zucker_98,

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

- AbbyDaisy_99, Enochoraptor_43, Keiki_45, Merpity_82, P1.1_45, P14.4_47, PAS50_48, PHL113M01_44,

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

- Bavailard_1, BellaJr_95, McDazzle_1,

Summary by start number:

Start 7:

- Found in 1 of 73 (1.4%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BellaJr_95 (FN),

Start 8:

- Found in 22 of 73 (30.1%) of genes in pham
- Manual Annotations of this start: 4 of 55
- Called 27.3% of time when present
- Phage (with cluster) where this start called: Enochoraptor_43 (BU), Keiki_45 (BU), P1.1_45 (BU), P14.4_47 (BU), PAS50_48 (BU), PHL113M01_44 (BU),

Start 9:

- Found in 70 of 73 (95.9%) of genes in pham
- Manual Annotations of this start: 50 of 55

- Called 88.6% of time when present
- Phage (with cluster) where this start called: ATCC29399BC_46 (BU), ATCC29399BT_46 (BU), Aquarius_48 (BU), Attacne_45 (BU), B22_61 (BW), BlackSpider_85 (FN), BruceLethal_44 (BU), Cassini_92 (FN), Cota_45 (BU), Doucette_61 (BW), DrParker_45 (BU), E6_60 (BW), Enoki_45 (BU), G4_69 (BW), Kubed_44 (BU), Lauchelly_45 (BU), Leviosa_44 (BU), LilBandit_45 (BU), MEAK_44 (BU), Moyashi_44 (BU), MrAK_46 (BU), MrSmee_79 (FQ), Ouroboros_45 (BU), P100.1_47 (BU), P100A_45 (BU), P100D_47 (BU), P101A_47 (BU), P104A_45 (BU), P104B_44 (BU), P105_45 (BU), P106A_45 (BU), P106C_46 (BU), P106I_46 (BU), P106L_45 (BU), P106M_45 (BU), P107A_45 (BU), P107C_44 (BU), P108C_44 (BU), P9.1_45 (BU), PA6_48 (BU), PAD20_48 (BU), PHL010M04_45 (BU), PHL037M02_45 (BU), PHL060L00_46 (BU), PHL067M10_45 (BU), PHL071N05_45 (BU), PHL111M01_45 (BU), PHL112N00_46 (BU), PHL114L00_46 (BU), Pirate_44 (BU), Procrass1_45 (BU), QueenBey_43 (BU), Raqqa_101 (AY), Rileysaurus_43 (BU), SKKY_47 (BU), Skitty_72 (FQ), Solid_45 (BU), Spartoi_56 (singleton), Stormborn_46 (BU), Supernova_45 (BU), Wizzo_44 (BU), Zucker_98 (FN),

Start 12:

- Found in 1 of 73 (1.4%) of genes in pham
- Manual Annotations of this start: 1 of 55
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AbbyDaisy_99 (AY),

Start 13:

- Found in 2 of 73 (2.7%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Bavidard_1 (CT), McDazzle_1 (CT),

Start 19:

- Found in 7 of 73 (9.6%) of genes in pham
- No Manual Annotations of this start.
- Called 14.3% of time when present
- Phage (with cluster) where this start called: Merpity_82 (FQ),

Summary by clusters:

There are 7 clusters represented in this pham: FQ, singleton, BU, BW, AY, FN, CT,

Info for manual annotations of cluster AY:

- Start number 12 was manually annotated 1 time for cluster AY.

Info for manual annotations of cluster BU:

- Start number 8 was manually annotated 4 times for cluster BU.
- Start number 9 was manually annotated 41 times for cluster BU.

Info for manual annotations of cluster BW:

- Start number 9 was manually annotated 4 times for cluster BW.

Info for manual annotations of cluster FN:

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

Info for manual annotations of cluster FQ:

•Start number 9 was manually annotated 2 times for cluster FQ.

Gene Information:

Gene: ATCC29399BC_46 Start: 29152, Stop: 29454, Start Num: 9

Candidate Starts for ATCC29399BC_46:

(3, 29134), (Start: 9 @29152 has 50 MA's),

Gene: ATCC29399BT_46 Start: 29152, Stop: 29454, Start Num: 9

Candidate Starts for ATCC29399BT_46:

(3, 29134), (Start: 9 @29152 has 50 MA's),

Gene: AbbyDaisy_99 Start: 54512, Stop: 54778, Start Num: 12

Candidate Starts for AbbyDaisy_99:

(Start: 9 @54473 has 50 MA's), (Start: 12 @54512 has 1 MA's), (15, 54554), (17, 54575), (18, 54578), (25, 54716),

Gene: Aquarius_48 Start: 29747, Stop: 30049, Start Num: 9

Candidate Starts for Aquarius_48:

(Start: 9 @29747 has 50 MA's),

Gene: Attacne_45 Start: 28511, Stop: 28813, Start Num: 9

Candidate Starts for Attacne_45:

(Start: 8 @28508 has 4 MA's), (Start: 9 @28511 has 50 MA's), (27, 28799),

Gene: B22_61 Start: 36822, Stop: 37160, Start Num: 9

Candidate Starts for B22_61:

(3, 36804), (Start: 9 @36822 has 50 MA's), (11, 36855), (19, 36930),

Gene: Bavilard_1 Start: 285, Stop: 542, Start Num: 13

Candidate Starts for Bavilard_1:

(1, 3), (2, 39), (13, 285), (20, 378), (21, 396),

Gene: BellaJr_95 Start: 51784, Stop: 52089, Start Num: 7

Candidate Starts for BellaJr_95:

(7, 51784), (10, 51823), (14, 51847), (26, 52057),

Gene: BlackSpider_85 Start: 50168, Stop: 50473, Start Num: 9

Candidate Starts for BlackSpider_85:

(Start: 9 @50168 has 50 MA's), (22, 50357), (23, 50372),

Gene: BruceLethal_44 Start: 28884, Stop: 29186, Start Num: 9

Candidate Starts for BruceLethal_44:

(Start: 9 @28884 has 50 MA's),

Gene: Cassini_92 Start: 51244, Stop: 51549, Start Num: 9

Candidate Starts for Cassini_92:

(Start: 9 @51244 has 50 MA's), (23, 51448),

Gene: Cota_45 Start: 29185, Stop: 29487, Start Num: 9

Candidate Starts for Cota_45:
(Start: 8 @29182 has 4 MA's), (Start: 9 @29185 has 50 MA's), (27, 29473),

Gene: Doucette_61 Start: 37032, Stop: 37370, Start Num: 9
Candidate Starts for Doucette_61:
(3, 37014), (Start: 9 @37032 has 50 MA's), (11, 37065), (19, 37140),

Gene: DrParker_45 Start: 29378, Stop: 29680, Start Num: 9
Candidate Starts for DrParker_45:
(Start: 8 @29375 has 4 MA's), (Start: 9 @29378 has 50 MA's), (27, 29666),

Gene: E6_60 Start: 37670, Stop: 38008, Start Num: 9
Candidate Starts for E6_60:
(3, 37652), (Start: 9 @37670 has 50 MA's), (11, 37703), (19, 37778),

Gene: Enochoraptor_43 Start: 29132, Stop: 29437, Start Num: 8
Candidate Starts for Enochoraptor_43:
(Start: 8 @29132 has 4 MA's), (Start: 9 @29135 has 50 MA's), (27, 29423),

Gene: Enoki_45 Start: 28982, Stop: 29284, Start Num: 9
Candidate Starts for Enoki_45:
(Start: 9 @28982 has 50 MA's), (27, 29270),

Gene: G4_69 Start: 38158, Stop: 38496, Start Num: 9
Candidate Starts for G4_69:
(3, 38140), (Start: 9 @38158 has 50 MA's), (11, 38191), (19, 38266),

Gene: Keiki_45 Start: 28972, Stop: 29277, Start Num: 8
Candidate Starts for Keiki_45:
(Start: 8 @28972 has 4 MA's), (Start: 9 @28975 has 50 MA's), (16, 29071), (27, 29263),

Gene: Kubed_44 Start: 29097, Stop: 29399, Start Num: 9
Candidate Starts for Kubed_44:
(Start: 9 @29097 has 50 MA's), (27, 29385),

Gene: Lauchelly_45 Start: 29153, Stop: 29455, Start Num: 9
Candidate Starts for Lauchelly_45:
(Start: 9 @29153 has 50 MA's), (27, 29441),

Gene: Leviosa_44 Start: 29089, Stop: 29391, Start Num: 9
Candidate Starts for Leviosa_44:
(Start: 9 @29089 has 50 MA's),

Gene: LilBandit_45 Start: 28677, Stop: 28979, Start Num: 9
Candidate Starts for LilBandit_45:
(Start: 9 @28677 has 50 MA's), (27, 28965),

Gene: MEAK_44 Start: 28859, Stop: 29161, Start Num: 9
Candidate Starts for MEAK_44:
(Start: 8 @28856 has 4 MA's), (Start: 9 @28859 has 50 MA's),

Gene: McDazzle_1 Start: 285, Stop: 542, Start Num: 13
Candidate Starts for McDazzle_1:

(1, 3), (2, 39), (13, 285), (20, 378), (21, 396),

Gene: Merpity_82 Start: 41853, Stop: 42050, Start Num: 19

Candidate Starts for Merpity_82:

(Start: 9 @41745 has 50 MA's), (15, 41826), (19, 41853), (24, 41985), (25, 41988), (28, 42027),

Gene: Moyashi_44 Start: 28889, Stop: 29191, Start Num: 9

Candidate Starts for Moyashi_44:

(Start: 9 @28889 has 50 MA's),

Gene: MrAK_46 Start: 29362, Stop: 29664, Start Num: 9

Candidate Starts for MrAK_46:

(Start: 9 @29362 has 50 MA's),

Gene: MrSmee_79 Start: 40738, Stop: 41043, Start Num: 9

Candidate Starts for MrSmee_79:

(Start: 9 @40738 has 50 MA's), (15, 40819), (19, 40846), (24, 40978), (25, 40981), (28, 41020),

Gene: Ouroboros_45 Start: 29142, Stop: 29444, Start Num: 9

Candidate Starts for Ouroboros_45:

(Start: 9 @29142 has 50 MA's), (16, 29238), (27, 29430),

Gene: P1.1_45 Start: 28981, Stop: 29286, Start Num: 8

Candidate Starts for P1.1_45:

(5, 28969), (Start: 8 @28981 has 4 MA's), (Start: 9 @28984 has 50 MA's), (27, 29272),

Gene: P100.1_47 Start: 29248, Stop: 29550, Start Num: 9

Candidate Starts for P100.1_47:

(6, 29236), (Start: 9 @29248 has 50 MA's), (27, 29536),

Gene: P100A_45 Start: 29140, Stop: 29442, Start Num: 9

Candidate Starts for P100A_45:

(Start: 9 @29140 has 50 MA's), (27, 29428),

Gene: P100D_47 Start: 29142, Stop: 29444, Start Num: 9

Candidate Starts for P100D_47:

(Start: 9 @29142 has 50 MA's), (27, 29430),

Gene: P101A_47 Start: 29210, Stop: 29512, Start Num: 9

Candidate Starts for P101A_47:

(Start: 9 @29210 has 50 MA's),

Gene: P104A_45 Start: 29007, Stop: 29309, Start Num: 9

Candidate Starts for P104A_45:

(Start: 9 @29007 has 50 MA's), (27, 29295),

Gene: P104B_44 Start: 28966, Stop: 29268, Start Num: 9

Candidate Starts for P104B_44:

(Start: 9 @28966 has 50 MA's), (27, 29254),

Gene: P105_45 Start: 28838, Stop: 29140, Start Num: 9

Candidate Starts for P105_45:

(Start: 8 @28835 has 4 MA's), (Start: 9 @28838 has 50 MA's),

Gene: P106A_45 Start: 29190, Stop: 29492, Start Num: 9
Candidate Starts for P106A_45:
(6, 29178), (Start: 9 @29190 has 50 MA's), (27, 29478),

Gene: P106C_46 Start: 29277, Stop: 29579, Start Num: 9
Candidate Starts for P106C_46:
(6, 29265), (Start: 9 @29277 has 50 MA's), (27, 29565),

Gene: P106I_46 Start: 29106, Stop: 29408, Start Num: 9
Candidate Starts for P106I_46:
(6, 29094), (Start: 9 @29106 has 50 MA's), (27, 29394),

Gene: P106L_45 Start: 29277, Stop: 29579, Start Num: 9
Candidate Starts for P106L_45:
(6, 29265), (Start: 9 @29277 has 50 MA's), (27, 29565),

Gene: P106M_45 Start: 29277, Stop: 29579, Start Num: 9
Candidate Starts for P106M_45:
(6, 29265), (Start: 9 @29277 has 50 MA's), (27, 29565),

Gene: P107A_45 Start: 29101, Stop: 29403, Start Num: 9
Candidate Starts for P107A_45:
(Start: 9 @29101 has 50 MA's), (16, 29197),

Gene: P107C_44 Start: 29152, Stop: 29454, Start Num: 9
Candidate Starts for P107C_44:
(3, 29134), (Start: 9 @29152 has 50 MA's),

Gene: P108C_44 Start: 29130, Stop: 29432, Start Num: 9
Candidate Starts for P108C_44:
(Start: 8 @29127 has 4 MA's), (Start: 9 @29130 has 50 MA's),

Gene: P14.4_47 Start: 29362, Stop: 29667, Start Num: 8
Candidate Starts for P14.4_47:
(Start: 8 @29362 has 4 MA's), (Start: 9 @29365 has 50 MA's), (27, 29653),

Gene: P9.1_45 Start: 28850, Stop: 29152, Start Num: 9
Candidate Starts for P9.1_45:
(6, 28838), (Start: 8 @28847 has 4 MA's), (Start: 9 @28850 has 50 MA's), (27, 29138),

Gene: PA6_48 Start: 29388, Stop: 29690, Start Num: 9
Candidate Starts for PA6_48:
(3, 29370), (Start: 9 @29388 has 50 MA's), (27, 29676),

Gene: PAD20_48 Start: 28723, Stop: 29025, Start Num: 9
Candidate Starts for PAD20_48:
(Start: 9 @28723 has 50 MA's), (27, 29011),

Gene: PAS50_48 Start: 28663, Stop: 28968, Start Num: 8
Candidate Starts for PAS50_48:
(6, 28654), (Start: 8 @28663 has 4 MA's), (Start: 9 @28666 has 50 MA's), (27, 28954),

Gene: PHL010M04_45 Start: 29157, Stop: 29459, Start Num: 9
Candidate Starts for PHL010M04_45:
(Start: 9 @29157 has 50 MA's),

Gene: PHL037M02_45 Start: 29090, Stop: 29392, Start Num: 9
Candidate Starts for PHL037M02_45:
(Start: 9 @29090 has 50 MA's), (16, 29186), (27, 29378),

Gene: PHL060L00_46 Start: 29161, Stop: 29463, Start Num: 9
Candidate Starts for PHL060L00_46:
(Start: 9 @29161 has 50 MA's),

Gene: PHL067M10_45 Start: 29024, Stop: 29326, Start Num: 9
Candidate Starts for PHL067M10_45:
(Start: 9 @29024 has 50 MA's), (27, 29312),

Gene: PHL071N05_45 Start: 29114, Stop: 29416, Start Num: 9
Candidate Starts for PHL071N05_45:
(Start: 8 @29111 has 4 MA's), (Start: 9 @29114 has 50 MA's), (27, 29402),

Gene: PHL111M01_45 Start: 28787, Stop: 29089, Start Num: 9
Candidate Starts for PHL111M01_45:
(Start: 8 @28784 has 4 MA's), (Start: 9 @28787 has 50 MA's), (27, 29075),

Gene: PHL112N00_46 Start: 28913, Stop: 29215, Start Num: 9
Candidate Starts for PHL112N00_46:
(Start: 9 @28913 has 50 MA's),

Gene: PHL113M01_44 Start: 28844, Stop: 29149, Start Num: 8
Candidate Starts for PHL113M01_44:
(Start: 8 @28844 has 4 MA's), (Start: 9 @28847 has 50 MA's), (27, 29135),

Gene: PHL114L00_46 Start: 29111, Stop: 29413, Start Num: 9
Candidate Starts for PHL114L00_46:
(Start: 9 @29111 has 50 MA's),

Gene: Pirate_44 Start: 28960, Stop: 29262, Start Num: 9
Candidate Starts for Pirate_44:
(Start: 8 @28957 has 4 MA's), (Start: 9 @28960 has 50 MA's), (16, 29056), (27, 29248),

Gene: Procrass1_45 Start: 28983, Stop: 29285, Start Num: 9
Candidate Starts for Procrass1_45:
(Start: 9 @28983 has 50 MA's), (27, 29271),

Gene: QueenBey_43 Start: 28974, Stop: 29276, Start Num: 9
Candidate Starts for QueenBey_43:
(Start: 8 @28971 has 4 MA's), (Start: 9 @28974 has 50 MA's), (27, 29262),

Gene: Raqqa_101 Start: 53739, Stop: 54044, Start Num: 9
Candidate Starts for Raqqa_101:
(Start: 9 @53739 has 50 MA's), (25, 53982),

Gene: Rileysaurus_43 Start: 29070, Stop: 29372, Start Num: 9

Candidate Starts for Rileysaurus_43:

(Start: 9 @29070 has 50 MA's),

Gene: SKKY_47 Start: 29230, Stop: 29532, Start Num: 9

Candidate Starts for SKKY_47:

(4, 29215), (Start: 8 @29227 has 4 MA's), (Start: 9 @29230 has 50 MA's),

Gene: Skitty_72 Start: 38994, Stop: 39299, Start Num: 9

Candidate Starts for Skitty_72:

(Start: 9 @38994 has 50 MA's), (15, 39075), (19, 39102), (24, 39234), (25, 39237), (28, 39276),

Gene: Solid_45 Start: 29077, Stop: 29379, Start Num: 9

Candidate Starts for Solid_45:

(Start: 8 @29074 has 4 MA's), (Start: 9 @29077 has 50 MA's), (27, 29365),

Gene: Spartoi_56 Start: 34706, Stop: 35032, Start Num: 9

Candidate Starts for Spartoi_56:

(Start: 9 @34706 has 50 MA's),

Gene: Stormborn_46 Start: 28966, Stop: 29268, Start Num: 9

Candidate Starts for Stormborn_46:

(Start: 8 @28963 has 4 MA's), (Start: 9 @28966 has 50 MA's), (27, 29254),

Gene: Supernova_45 Start: 28853, Stop: 29155, Start Num: 9

Candidate Starts for Supernova_45:

(Start: 8 @28850 has 4 MA's), (Start: 9 @28853 has 50 MA's), (27, 29141),

Gene: Wizzo_44 Start: 29099, Stop: 29401, Start Num: 9

Candidate Starts for Wizzo_44:

(Start: 8 @29096 has 4 MA's), (Start: 9 @29099 has 50 MA's), (27, 29387),

Gene: Zucker_98 Start: 53075, Stop: 53380, Start Num: 9

Candidate Starts for Zucker_98:

(Start: 9 @53075 has 50 MA's), (22, 53264), (23, 53279),