

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 194481 Report

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

Pham number 194481 has 13 members, 6 are drafts.

Phages represented in each track:

- Track 1 : Dunamis_19
- Track 2: Tillums 20
- Track 3 : Mendel 17
- Track 4 : Anjali_15
- Track 5 : Swim_20
- Track 6 : Curie_12
- Track 7 : Evcara 12
- Track 8 : PineapplePizza_14
- Track 9 : Squali_13
- Track 10 : Penne_14, Brave_14, Fairywren_15
- Track 11 : Trapezoid_13

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

The start number called the most often in the published annotations is 6, it was called in 3 of the 7 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

• Curie_12, Evcara_12, PineapplePizza_14, Squall_13, Trapezoid_13,

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

Brave_14, Fairywren_15, Penne_14,

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

Anjali_15, Dunamis_19, Mendel_17, Swim_20, Tillums_20,

Summary by start number:

Start 6:

- Found in 8 of 13 (61.5%) of genes in pham
- Manual Annotations of this start: 3 of 7
- Called 62.5% of time when present
- Phage (with cluster) where this start called: Curie_12 (GI), Evcara_12 (GI), PineapplePizza_14 (GI), Squall_13 (JB), Trapezoid_13 (JB),

Start 7:

- Found in 3 of 13 (23.1%) of genes in pham
- Manual Annotations of this start: 3 of 7
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Anjali_15 (FD), Mendel_17 (FD), Tillums_20 (FD),

Start 9:

- Found in 4 of 13 (30.8%) of genes in pham
- No Manual Annotations of this start.
- Called 75.0% of time when present
- Phage (with cluster) where this start called: Brave_14 (JB), Fairywren_15 (JB), Penne 14 (JB),

Start 10:

- Found in 5 of 13 (38.5%) of genes in pham
- Manual Annotations of this start: 1 of 7
- Called 40.0% of time when present
- Phage (with cluster) where this start called: Dunamis_19 (FD), Swim_20 (FD),

Summary by clusters:

There are 3 clusters represented in this pham: FD, JB, GI,

Info for manual annotations of cluster FD:

- •Start number 7 was manually annotated 3 times for cluster FD.
- •Start number 10 was manually annotated 1 time for cluster FD.

Info for manual annotations of cluster GI:

•Start number 6 was manually annotated 3 times for cluster GI.

Gene Information:

Gene: Anjali_15 Start: 12943, Stop: 13605, Start Num: 7

Candidate Starts for Anjali_15:

(Start: 7 @ 12943 has 3 MA's), (8, 12946), (Start: 10 @ 12952 has 1 MA's), (15, 12997), (16, 13000), (19, 13030), (22, 13063), (23, 13075), (31, 13198), (34, 13264), (35, 13273), (36, 13282), (38, 13300), (41, 13342), (44, 13390), (48, 13429), (52, 13453), (58, 13561), (60, 13594),

Gene: Brave_14 Start: 12448, Stop: 13059, Start Num: 9

Candidate Starts for Brave_14:

(3, 12421), (Start: 6 @12439 has 3 MA's), (9, 12448), (12, 12463), (31, 12691), (32, 12724), (40, 12823), (44, 12880), (45, 12883), (57, 13030),

Gene: Curie 12 Start: 12432, Stop: 13067, Start Num: 6

Candidate Starts for Curie 12:

(Start: 6 @12432 has 3 MA's), (11, 12453), (13, 12471), (14, 12483), (17, 12498), (24, 12597), (34, 12735), (43, 12825), (44, 12846), (48, 12885), (49, 12894), (53, 12912), (54, 12948), (56, 12990), (59, 13029),

Gene: Dunamis_19 Start: 13118, Stop: 13771, Start Num: 10

Candidate Starts for Dunamis_19:

(1, 12932), (2, 12959), (Start: 10 @13118 has 1 MA's), (13, 13145), (15, 13163), (16, 13166), (19, 13196), (20, 13199), (22, 13229), (23, 13241), (25, 13298), (28, 13331), (29, 13343), (31, 13364), (37, 13454), (38, 13466), (41, 13508), (44, 13556), (47, 13577), (50, 13610), (59, 13736),

Gene: Evcara_12 Start: 12378, Stop: 13010, Start Num: 6

Candidate Starts for Evcara_12:

(Start: 6 @12378 has 3 MA's), (13, 12417), (14, 12429), (26, 12564), (38, 12720), (39, 12729), (42, 12768), (44, 12795), (48, 12831), (50, 12846), (54, 12891), (55, 12897), (56, 12933),

Gene: Fairywren_15 Start: 12414, Stop: 13025, Start Num: 9

Candidate Starts for Fairywren_15:

(3, 12387), (Start: 6 @12405 has 3 MA's), (9, 12414), (12, 12429), (31, 12657), (32, 12690), (40, 12789), (44, 12846), (45, 12849), (57, 12996),

Gene: Mendel_17 Start: 12867, Stop: 13529, Start Num: 7

Candidate Starts for Mendel 17:

(Start: 7 @ 12867 has 3 MA's), (8, 12870), (Start: 10 @ 12876 has 1 MA's), (15, 12921), (16, 12924), (19, 12954), (23, 12999), (29, 13101), (31, 13122), (38, 13224), (41, 13266), (44, 13314), (46, 13329), (47, 13335), (52, 13377), (59, 13494),

Gene: Penne_14 Start: 12451, Stop: 13062, Start Num: 9

Candidate Starts for Penne 14:

(3, 12424), (Start: 6 @12442 has 3 MA's), (9, 12451), (12, 12466), (31, 12694), (32, 12727), (40, 12826), (44, 12883), (45, 12886), (57, 13033),

Gene: PineapplePizza_14 Start: 13106, Stop: 13741, Start Num: 6

Candidate Starts for PineapplePizza_14:

(4, 13094), (Start: 6 @13106 has 3 MA's), (13, 13145), (14, 13157), (21, 13211), (26, 13295), (27, 13304), (34, 13409), (38, 13445), (43, 13499), (44, 13520), (49, 13568), (51, 13577),

Gene: Squall 13 Start: 12409, Stop: 13029, Start Num: 6

Candidate Starts for Squall 13:

(3, 12391), (Start: 6 @12409 has 3 MA's), (9, 12418), (12, 12433), (31, 12661), (32, 12694), (40, 12793), (44, 12850), (45, 12853), (57, 13000),

Gene: Swim_20 Start: 13301, Stop: 13954, Start Num: 10

Candidate Starts for Swim_20:

(Start: 10 @13301 has 1 MA's), (13, 13328), (15, 13346), (16, 13349), (19, 13379), (22, 13412), (23, 13424), (25, 13481), (29, 13526), (31, 13547), (38, 13649), (41, 13691), (44, 13739), (47, 13760), (52, 13802), (58, 13910),

Gene: Tillums 20 Start: 13489, Stop: 14151, Start Num: 7

Candidate Starts for Tillums_20:

(Start: 7 @13489 has 3 MA's), (8, 13492), (Start: 10 @13498 has 1 MA's), (13, 13525), (15, 13543), (16, 13546), (18, 13552), (19, 13576), (22, 13609), (23, 13621), (28, 13711), (29, 13723), (31, 13744), (34, 13810), (38, 13846), (41, 13888), (44, 13936), (47, 13957), (52, 13999), (58, 14107), (60, 14140),

Gene: Trapezoid_13 Start: 12303, Stop: 12923, Start Num: 6

Candidate Starts for Trapezoid 13:

 $(5,\,12297),\,(Start:\,6\,\,@\,12303\,\,has\,\,3\,\,MA's),\,(30,\,12540),\,(31,\,12555),\,(32,\,12588),\,(33,\,12600),\,(40,\,12687),\,(41,\,12699),\,(44,\,12744),\,(45,\,12747),\,(57,\,12894),\\$