Pham 54487


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 54487 Report

This analysis was run 04/05/24 on database version 557.
Pham number 54487 has 17 members, 2 are drafts.
Phages represented in each track:

- Track 1 : Indlulamithi_51
- Track 2 : NiceHouse_168
- Track 3 : Trax_49
- Track 4 : Neville 50
- Track 5 : Weiss13_58
- Track 6 : Send513_59, Candle_57, MontyDev_59, Papyrus_59, Zenon_59
- Track 7 : Yelo 57
- Track 8 : Riparian_60, Nilo_60
- Track 9 : Rope_59
- Track 10 : Patience_70, Madruga_68, Labelle_69


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

The start number called the most often in the published annotations is 1 , it was called in 8 of the 15 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Candle_57, MontyDev_59, Nilo_60, Papyrus_59, Riparian_60, Rope_59, Send513_59, Weiss13_58, Zenō̄_59,

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

- Yelo_57,

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

- Indlulamithi_51, Labelle_69, Madruga_68, Neville_50, NiceHouse_168,

Patience_70, Trax_49,

## Summary by start number:

Start 1:

- Found in 10 of 17 (58.8\%) of genes in pham
- Manual Annotations of this start: 8 of 15
- Called $90.0 \%$ of time when present
- Phage (with cluster) where this start called: Candle_57 (R), MontyDev_59 (R), Nilo_60 (R), Papyrus_59 (R), Riparian_60 (R), Rope_59 (R), Send513_59 (R), Weiss13_58 (R), Zenon_59 (R),

Start 9:

- Found in 14 of 17 ( $82.4 \%$ ) of genes in pham
- Manual Annotations of this start: 4 of 15
- Called $35.7 \%$ of time when present
- Phage (with cluster) where this start called: Labelle_69 (U), Madruga_68 (U),

NiceHouse_168 (CE), Patience_70 (U), Yelo_57 (R),
Start 10:

- Found in 3 of 17 (17.6\%) of genes in pham
- Manual Annotations of this start: 3 of 15
- Called 100.0\% of time when present
- Phage (with cluster) where this start called: Indlulamithi_51 (AC), Neville_50 (DU2),

Trax_49 (DU2),

## Summary by clusters:

There are 5 clusters represented in this pham: $D U 2, R, U, A C, C E$,
Info for manual annotations of cluster AC:
-Start number 10 was manually annotated 1 time for cluster AC.
Info for manual annotations of cluster CE:

- Start number 9 was manually annotated 1 time for cluster CE.

Info for manual annotations of cluster DU2:

- Start number 10 was manually annotated 2 times for cluster DU2.

Info for manual annotations of cluster R:

- Start number 1 was manually annotated 8 times for cluster R.

Info for manual annotations of cluster U:

- Start number 9 was manually annotated 3 times for cluster $U$.


## Gene Information:

Gene: Candle_57 Start: 43629, Stop: 44186, Start Num: 1
Candidate Starts for Candle_57:
(Start: 1 @43629 has 8 MA's), (3, 43644), (5, 43680), (8, 43764), (Start: 9 @43770 has 4 MA's), (18, $43866),(25,43980),(28,44022),(31,44037),(36,44109),(37,44118),(38,44145),(39,44157)$,

Gene: Indlulamithi_51 Start: 40386, Stop: 40706, Start Num: 10
Candidate Starts for Indlulamithi 51 :
(6, 40353), (Start: 10 @40386 has 3 MA's), (11, 40398), (12, 40431), (15, 40446), (16, 40467), (22, 40515), (27, 40617), (28, 40632), (29, 40638),

Gene: Labelle_69 Start: 46467, Stop: 46799, Start Num: 9
Candidate Starts for Labelle_69:
(Start: 9 @46467 has 4 MA's), (18, 46560), (19, 46566), (21, 46584), (25, 46674), (26, 46677), (30, 46725), (32, 46743), (35, 46767),

Gene: Madruga_68 Start: 46116, Stop: 46448, Start Num: 9 Candidate Starts for Madruga_68:
(Start: 9 @46116 has 4 MA's), (18, 46209), (19, 46215), (21, 46233), (25, 46323), (26, 46326), (30, 46374), (32, 46392), (35, 46416),

Gene: MontyDev_59 Start: 43276, Stop: 43833, Start Num: 1
Candidate Starts for MontyDev_59:
(Start: 1 @43276 has 8 MA's), (3, 43291), (5, 43327), (8, 43411), (Start: 9 @43417 has 4 MA's), (18, 43513), (25, 43627), (28, 43669), (31, 43684), (36, 43756), (37, 43765), (38, 43792), (39, 43804),

Gene: Neville_50 Start: 36182, Stop: 36487, Start Num: 10
Candidate Starts for Neville_50:
(Start: 10 @36182 has 3 MA's), (13, 36230), (22, 36308), (24, 36344), (28, 36419), (34, 36470),
Gene: NiceHouse_168 Start: 96952, Stop: 97260, Start Num: 9
Candidate Starts for NiceHouse_168:
(7, 96928), (Start: 9 @96952 has 4 MA's), (14, 97012), (17, 97039), (20, 97066), (23, 97090), (24, 97120), (25, 97153), (33, 97240),

Gene: Nilo_60 Start: 43628, Stop: 44185, Start Num: 1
Candidate Starts for Nilo_60:
(Start: 1 @43628 has 8 MA's), (3, 43643), (5, 43679), (8, 43763), (Start: 9 @43769 has 4 MA's), (18, 43865), (25, 43979), (28, 44021), (31, 44036), (33, 44072), (36, 44108), (37, 44117), (38, 44144), (39, 44156),

Gene: Papyrus_59 Start: 43484, Stop: 44041, Start Num: 1
Candidate Starts for Papyrus_59:
(Start: 1 @43484 has 8 MA's), (3, 43499), (5, 43535), (8, 43619), (Start: 9 @43625 has 4 MA's), (18, 43721), (25, 43835), (28, 43877), (31, 43892), (36, 43964), (37, 43973), (38, 44000), (39, 44012),

Gene: Patience_70 Start: 47011, Stop: 47343, Start Num: 9
Candidate Starts for Patience_70:
(Start: 9 @47011 has 4 MA's), (18, 47104), (19, 47110), (21, 47128), (25, 47218), (26, 47221), (30, 47269), (32, 47287), (35, 47311),

Gene: Riparian_60 Start: 43076, Stop: 43633, Start Num: 1
Candidate Starts for Riparian_60:
(Start: 1 @43076 has 8 MA's), (3, 43091), (5, 43127), (8, 43211), (Start: 9 @43217 has 4 MA's), (18, 43313), (25, 43427), (28, 43469), (31, 43484), (33, 43520), (36, 43556), (37, 43565), (38, 43592), (39, 43604),

Gene: Rope_59 Start: 43471, Stop: 44031, Start Num: 1
Candidate Starts for Rope_59:
(Start: 1 @43471 has 8 MA's), (2, 43477), (3, 43486), (4, 43501), (8, 43609), (Start: 9 @43615 has 4 MA's), (18, 43711), (25, 43825), (28, 43867), (31, 43882), (36, 43954), (38, 43990), (39, 44002),

Gene: Send513_59 Start: 43609, Stop: 44166, Start Num: 1
Candidate Starts for Send513_59:
(Start: 1 @43609 has 8 MA's), (3, 43624), (5, 43660), (8, 43744), (Start: 9 @43750 has 4 MA's), (18, $43846),(25,43960),(28,44002),(31,44017),(36,44089),(37,44098),(38,44125),(39,44137)$,

Gene: Trax_49 Start: 36467, Stop: 36772, Start Num: 10 Candidate Starts for Trax_49:
(Start: 10 @36467 has 3 MA's), (22, 36593), (24, 36629), (25, 36662), (28, 36704), (34, 36755),
Gene: Weiss13_58 Start: 43313, Stop: 43870, Start Num: 1
Candidate Starts for Weiss13_58:
(Start: 1 @43313 has 8 MA's), (3, 43328), (5, 43364), (8, 43448), (Start: 9 @43454 has 4 MA's), (18, 43550), (25, 43664), (28, 43706), (31, 43721), (33, 43757), (36, 43793), (37, 43802), (38, 43829), (39, 43841),

Gene: Yelo_57 Start: 43833, Stop: 44249, Start Num: 9
Candidate Starts for Yelo_57:
(Start: 1 @43692 has 8 MA's), (3, 43707), (5, 43743), (8, 43827), (Start: 9 @43833 has 4 MA's), (18, 43929), (25, 44043), (28, 44085), (31, 44100), (36, 44172), (37, 44181), (38, 44208), (39, 44220),

Gene: Zenon_59 Start: 43638, Stop: 44195, Start Num: 1
Candidate Starts for Zenon_59:
(Start: 1 @43638 has 8 MA's), (3, 43653), (5, 43689), (8, 43773), (Start: 9 @43779 has 4 MA's), (18, $43875),(25,43989),(28,44031),(31,44046),(36,44118),(37,44127),(38,44154),(39,44166)$,

