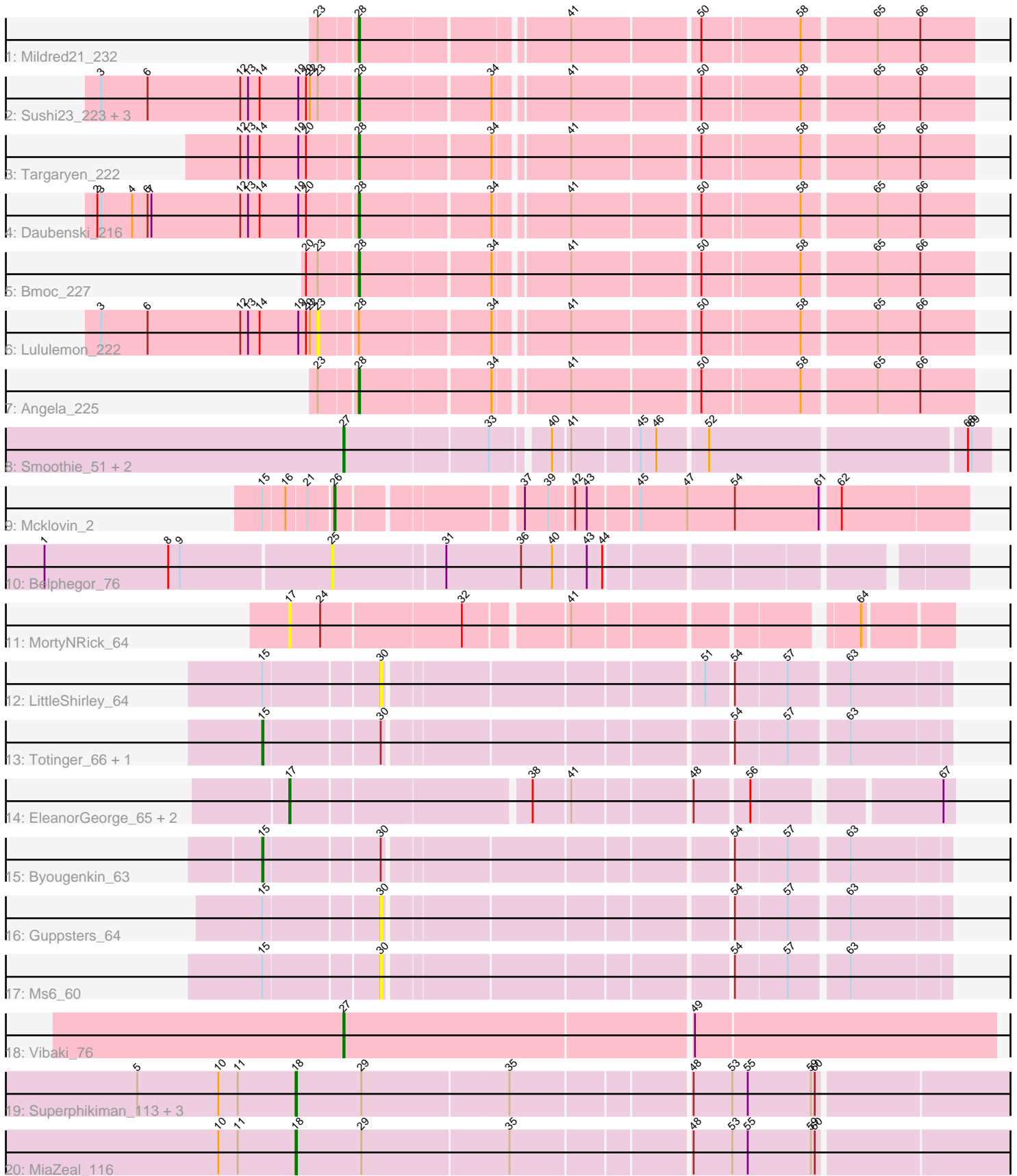


Pham 163819



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 163819 Report

This analysis was run 04/28/24 on database version 559.

Pham number 163819 has 31 members, 9 are drafts.

Phages represented in each track:

- Track 1 : Mildred21_232
- Track 2 : Sushi23_223, Larnav_229, PacManQ_223, Cursive_225
- Track 3 : Targaryen_222
- Track 4 : Daubenski_216
- Track 5 : Bmoc_227
- Track 6 : Lululemon_222
- Track 7 : Angela_225
- Track 8 : Smoothie_51, Engineer_51, Lozinak_50
- Track 9 : Mcklovin_2
- Track 10 : Belphegor_76
- Track 11 : MortyNRick_64
- Track 12 : LittleShirley_64
- Track 13 : Totinger_66, Plumbus_66
- Track 14 : EleanorGeorge_65, Mutaforma13_69, Firehouse51_66
- Track 15 : Byougenkin_63
- Track 16 : Guppsters_64
- Track 17 : Ms6_60
- Track 18 : Vibaki_76
- Track 19 : Superphikiman_113, Courthouse_111, Squint_114, Ariel_116
- Track 20 : MiaZeal_116

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

The start number called the most often in the published annotations is 28, it was called in 7 of the 22 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Angela_225, Bmoc_227, Cursive_225, Daubenski_216, Larnav_229, Mildred21_232, PacManQ_223, Sushi23_223, Targaryen_222,

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

- Lululemon_222,

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

- Ariel_116, Belphegor_76, Byougenkin_63, Courthouse_111, EleanorGeorge_65, Engineer_51, Firehouse51_66, Guppsters_64, LittleShirley_64, Lozinak_50, Mcklovin_2, MiaZeal_116, MortyNRick_64, Ms6_60, Mutaforma13_69, Plumbus_66, Smoothie_51, Squint_114, Superphikiman_113, Totinger_66, Vibaki_76,

Summary by start number:

Start 15:

- Found in 7 of 31 (22.6%) of genes in pham
- Manual Annotations of this start: 2 of 22
- Called 42.9% of time when present
- Phage (with cluster) where this start called: Byougenkin_63 (F1), Plumbus_66 (F1), Totinger_66 (F1),

Start 17:

- Found in 4 of 31 (12.9%) of genes in pham
- Manual Annotations of this start: 3 of 22
- Called 100.0% of time when present
- Phage (with cluster) where this start called: EleanorGeorge_65 (F1), Firehouse51_66 (F1), MortyNRick_64 (DN), Mutaforma13_69 (F1),

Start 18:

- Found in 5 of 31 (16.1%) of genes in pham
- Manual Annotations of this start: 5 of 22
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Ariel_116 (J), Courthouse_111 (J), MiaZeal_116 (J), Squint_114 (J), Superphikiman_113 (J),

Start 23:

- Found in 8 of 31 (25.8%) of genes in pham
- No Manual Annotations of this start.
- Called 12.5% of time when present
- Phage (with cluster) where this start called: Lululemon_222 (BE1),

Start 25:

- Found in 1 of 31 (3.2%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Belphegor_76 (DE),

Start 26:

- Found in 1 of 31 (3.2%) of genes in pham
- Manual Annotations of this start: 1 of 22
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Mcklovin_2 (CZ4),

Start 27:

- Found in 4 of 31 (12.9%) of genes in pham
- Manual Annotations of this start: 4 of 22
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Engineer_51 (CQ1), Lozinak_50 (CQ1), Smoothie_51 (CQ1), Vibaki_76 (FL),

Start 28:

- Found in 10 of 31 (32.3%) of genes in pham
- Manual Annotations of this start: 7 of 22
- Called 90.0% of time when present
- Phage (with cluster) where this start called: Angela_225 (BE1), Bmoc_227 (BE1), Cursive_225 (BE1), Daubenski_216 (BE1), Larnav_229 (BE1), Mildred21_232 (BE1), PacManQ_223 (BE1), Sushi23_223 (BE1), Targaryen_222 (BE1),

Start 30:

- Found in 6 of 31 (19.4%) of genes in pham
- No Manual Annotations of this start.
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Guppsters_64 (F1), LittleShirley_64 (F1), Ms6_60 (F1),

Summary by clusters:

There are 8 clusters represented in this pham: DN, F1, DE, J, CZ4, CQ1, BE1, FL,

Info for manual annotations of cluster BE1:

- Start number 28 was manually annotated 7 times for cluster BE1.

Info for manual annotations of cluster CQ1:

- Start number 27 was manually annotated 3 times for cluster CQ1.

Info for manual annotations of cluster CZ4:

- Start number 26 was manually annotated 1 time for cluster CZ4.

Info for manual annotations of cluster F1:

- Start number 15 was manually annotated 2 times for cluster F1.
- Start number 17 was manually annotated 3 times for cluster F1.

Info for manual annotations of cluster FL:

- Start number 27 was manually annotated 1 time for cluster FL.

Info for manual annotations of cluster J:

- Start number 18 was manually annotated 5 times for cluster J.

Gene Information:

Gene: Angela_225 Start: 112366, Stop: 112806, Start Num: 28

Candidate Starts for Angela_225:

(23, 112339), (Start: 28 @112366 has 7 MA's), (34, 112462), (41, 112513), (50, 112606), (58, 112678), (65, 112732), (66, 112765),

Gene: Ariel_116 Start: 62922, Stop: 63554, Start Num: 18

Candidate Starts for Ariel_116:

(5, 62799), (10, 62862), (11, 62877), (Start: 18 @62922 has 5 MA's), (29, 62973), (35, 63084), (48, 63213), (53, 63243), (55, 63255), (59, 63303), (60, 63306),

Gene: Belphegor_76 Start: 56290, Stop: 56739, Start Num: 25

Candidate Starts for Belphegor_76:

(1, 56071), (8, 56167), (9, 56176), (25, 56290), (31, 56374), (36, 56431), (40, 56455), (43, 56479), (44, 56491),

Gene: Bmoc_227 Start: 112807, Stop: 113247, Start Num: 28

Candidate Starts for Bmoc_227:

(20, 112771), (23, 112780), (Start: 28 @112807 has 7 MA's), (34, 112903), (41, 112954), (50, 113047), (58, 113119), (65, 113173), (66, 113206),

Gene: Byougenkin_63 Start: 41134, Stop: 41616, Start Num: 15

Candidate Starts for Byougenkin_63:

(Start: 15 @41134 has 2 MA's), (30, 41218), (54, 41461), (57, 41500), (63, 41542),

Gene: Courthouse_111 Start: 62522, Stop: 63154, Start Num: 18

Candidate Starts for Courthouse_111:

(5, 62399), (10, 62462), (11, 62477), (Start: 18 @62522 has 5 MA's), (29, 62573), (35, 62684), (48, 62813), (53, 62843), (55, 62855), (59, 62903), (60, 62906),

Gene: Cursive_225 Start: 113007, Stop: 113447, Start Num: 28

Candidate Starts for Cursive_225:

(3, 112812), (6, 112848), (12, 112920), (13, 112926), (14, 112935), (19, 112965), (20, 112971), (22, 112974), (23, 112980), (Start: 28 @113007 has 7 MA's), (34, 113103), (41, 113154), (50, 113247), (58, 113319), (65, 113373), (66, 113406),

Gene: Daubenski_216 Start: 113389, Stop: 113829, Start Num: 28

Candidate Starts for Daubenski_216:

(2, 113191), (3, 113194), (4, 113218), (6, 113230), (7, 113233), (12, 113302), (13, 113308), (14, 113317), (19, 113347), (20, 113353), (Start: 28 @113389 has 7 MA's), (34, 113485), (41, 113536), (50, 113629), (58, 113701), (65, 113755), (66, 113788),

Gene: EleanorGeorge_65 Start: 42284, Stop: 42745, Start Num: 17

Candidate Starts for EleanorGeorge_65:

(Start: 17 @42284 has 3 MA's), (38, 42458), (41, 42485), (48, 42569), (56, 42608), (67, 42737),

Gene: Engineer_51 Start: 31923, Stop: 32384, Start Num: 27

Candidate Starts for Engineer_51:

(Start: 27 @31923 has 4 MA's), (33, 32031), (40, 32070), (41, 32082), (45, 32130), (46, 32142), (52, 32178), (68, 32367), (69, 32370),

Gene: Firehouse51_66 Start: 45330, Stop: 45791, Start Num: 17

Candidate Starts for Firehouse51_66:

(Start: 17 @45330 has 3 MA's), (38, 45504), (41, 45531), (48, 45615), (56, 45654), (67, 45783),

Gene: Guppsters_64 Start: 41007, Stop: 41405, Start Num: 30

Candidate Starts for Guppsters_64:

(Start: 15 @40923 has 2 MA's), (30, 41007), (54, 41250), (57, 41289), (63, 41331),

Gene: Larnav_229 Start: 113173, Stop: 113613, Start Num: 28

Candidate Starts for Larnav_229:

(3, 112978), (6, 113014), (12, 113086), (13, 113092), (14, 113101), (19, 113131), (20, 113137), (22, 113140), (23, 113146), (Start: 28 @113173 has 7 MA's), (34, 113269), (41, 113320), (50, 113413),

(58, 113485), (65, 113539), (66, 113572),

Gene: LittleShirley_64 Start: 41823, Stop: 42221, Start Num: 30

Candidate Starts for LittleShirley_64:

(Start: 15 @41739 has 2 MA's), (30, 41823), (51, 42048), (54, 42066), (57, 42105), (63, 42147),

Gene: Lozinak_50 Start: 31978, Stop: 32439, Start Num: 27

Candidate Starts for Lozinak_50:

(Start: 27 @31978 has 4 MA's), (33, 32086), (40, 32125), (41, 32137), (45, 32185), (46, 32197), (52, 32233), (68, 32422), (69, 32425),

Gene: Lululemon_222 Start: 112033, Stop: 112500, Start Num: 23

Candidate Starts for Lululemon_222:

(3, 111865), (6, 111901), (12, 111973), (13, 111979), (14, 111988), (19, 112018), (20, 112024), (22, 112027), (23, 112033), (Start: 28 @112060 has 7 MA's), (34, 112156), (41, 112207), (50, 112300), (58, 112372), (65, 112426), (66, 112459),

Gene: Mcklovin_2 Start: 532, Stop: 981, Start Num: 26

Candidate Starts for Mcklovin_2:

(Start: 15 @484 has 2 MA's), (16, 499), (21, 514), (Start: 26 @532 has 1 MA's), (37, 658), (39, 676), (42, 694), (43, 703), (45, 739), (47, 775), (54, 811), (61, 874), (62, 886),

Gene: MiaZeal_116 Start: 63594, Stop: 64151, Start Num: 18

Candidate Starts for MiaZeal_116:

(10, 63534), (11, 63549), (Start: 18 @63594 has 5 MA's), (29, 63645), (35, 63756), (48, 63885), (53, 63915), (55, 63927), (59, 63975), (60, 63978),

Gene: Mildred21_232 Start: 111445, Stop: 111885, Start Num: 28

Candidate Starts for Mildred21_232:

(23, 111418), (Start: 28 @111445 has 7 MA's), (41, 111592), (50, 111685), (58, 111757), (65, 111811), (66, 111844),

Gene: MortyNRick_64 Start: 42082, Stop: 42537, Start Num: 17

Candidate Starts for MortyNRick_64:

(Start: 17 @42082 has 3 MA's), (24, 42106), (32, 42211), (41, 42283), (64, 42475),

Gene: Ms6_60 Start: 36767, Stop: 37165, Start Num: 30

Candidate Starts for Ms6_60:

(Start: 15 @36683 has 2 MA's), (30, 36767), (54, 37010), (57, 37049), (63, 37091),

Gene: Mutaforma13_69 Start: 44640, Stop: 45101, Start Num: 17

Candidate Starts for Mutaforma13_69:

(Start: 17 @44640 has 3 MA's), (38, 44814), (41, 44841), (48, 44925), (56, 44964), (67, 45093),

Gene: PacManQ_223 Start: 112060, Stop: 112500, Start Num: 28

Candidate Starts for PacManQ_223:

(3, 111865), (6, 111901), (12, 111973), (13, 111979), (14, 111988), (19, 112018), (20, 112024), (22, 112027), (23, 112033), (Start: 28 @112060 has 7 MA's), (34, 112156), (41, 112207), (50, 112300), (58, 112372), (65, 112426), (66, 112459),

Gene: Plumbus_66 Start: 41519, Stop: 42001, Start Num: 15

Candidate Starts for Plumbus_66:

(Start: 15 @41519 has 2 MA's), (30, 41603), (54, 41846), (57, 41885), (63, 41927),

Gene: Smoothie_51 Start: 31978, Stop: 32439, Start Num: 27

Candidate Starts for Smoothie_51:

(Start: 27 @31978 has 4 MA's), (33, 32086), (40, 32125), (41, 32137), (45, 32185), (46, 32197), (52, 32233), (68, 32422), (69, 32425),

Gene: Squint_114 Start: 63713, Stop: 64345, Start Num: 18

Candidate Starts for Squint_114:

(5, 63590), (10, 63653), (11, 63668), (Start: 18 @63713 has 5 MA's), (29, 63764), (35, 63875), (48, 64004), (53, 64034), (55, 64046), (59, 64094), (60, 64097),

Gene: Superphikiman_113 Start: 62804, Stop: 63436, Start Num: 18

Candidate Starts for Superphikiman_113:

(5, 62681), (10, 62744), (11, 62759), (Start: 18 @62804 has 5 MA's), (29, 62855), (35, 62966), (48, 63095), (53, 63125), (55, 63137), (59, 63185), (60, 63188),

Gene: Sushi23_223 Start: 114010, Stop: 114450, Start Num: 28

Candidate Starts for Sushi23_223:

(3, 113815), (6, 113851), (12, 113923), (13, 113929), (14, 113938), (19, 113968), (20, 113974), (22, 113977), (23, 113983), (Start: 28 @114010 has 7 MA's), (34, 114106), (41, 114157), (50, 114250), (58, 114322), (65, 114376), (66, 114409),

Gene: Targaryen_222 Start: 114182, Stop: 114622, Start Num: 28

Candidate Starts for Targaryen_222:

(12, 114095), (13, 114101), (14, 114110), (19, 114140), (20, 114146), (Start: 28 @114182 has 7 MA's), (34, 114278), (41, 114329), (50, 114422), (58, 114494), (65, 114548), (66, 114581),

Gene: Totinger_66 Start: 40465, Stop: 40947, Start Num: 15

Candidate Starts for Totinger_66:

(Start: 15 @40465 has 2 MA's), (30, 40549), (54, 40792), (57, 40831), (63, 40873),

Gene: Vibaki_76 Start: 46752, Stop: 47243, Start Num: 27

Candidate Starts for Vibaki_76:

(Start: 27 @46752 has 4 MA's), (49, 47013),