# Pham 284330

1: Bowling_19
2: BenitoAntonio_19
3: Circum_19
4: Nason_18 + 2
5: Tribby_19 + 1
6: YoshiYama_17
7: NorManre_4 + 1
8: Lila22_4
9: BirthdayBoy_4

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 284330 Report

This analysis was run 02/23/26 on database version 636.

Pham number 284330 has 13 members, 1 are drafts.

Phages represented in each track:
• Track 1 : Bowling_19
• Track 2 : BenitoAntonio_19
• Track 3 : Circum_19
• Track 4 : Nason_18, Arcadia_18, Elsa_18
• Track 5 : Tribby_19, Cheesy_19
• Track 6 : YoshiYama_17
• Track 7 : NorManre_4, Patos_4
• Track 8 : Lila22_4
• Track 9 : BirthdayBoy_4

***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 4 of the 12 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• BirthdayBoy_4, Lila22_4, NorManre_4, Patos_4,

Genes that have the "Most Annotated" start but do not call it:
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Genes that do not have the "Most Annotated" start:
• Arcadia_18, BenitoAntonio_19, Bowling_19, Cheesy_19, Circum_19, Elsa_18, Nason_18, Tribby_19, YoshiYama_17,

**Summary by start number:**

Start 1:
• Found in 4 of 13 ( 30.8% ) of genes in pham
• Manual Annotations of this start: 4 of 12
• Called 100.0% of time when present
• Phage (with cluster) where this start called: BirthdayBoy_4 (DV), Lila22_4 (DV), NorManre_4 (DV), Patos_4 (DV),

Start 3:
• Found in 2 of 13 ( 15.4% ) of genes in pham
• Manual Annotations of this start: 2 of 12
• Called 100.0% of time when present
• Phage (with cluster) where this start called: BenitoAntonio_19 (AM), Bowling_19 (AM),

Start 4:
• Found in 4 of 13 ( 30.8% ) of genes in pham
• Manual Annotations of this start: 3 of 12
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Arcadia_18 (AM), Elsa_18 (AM), Nason_18 (AM), YoshiYama_17 (AM),

Start 5:
• Found in 5 of 13 ( 38.5% ) of genes in pham
• Manual Annotations of this start: 3 of 12
• Called 60.0% of time when present
• Phage (with cluster) where this start called: Cheesy_19 (AM), Circum_19 (AM), Tribby_19 (AM),

**Summary by clusters:**

There are 2 clusters represented in this pham: DV, AM,

Info for manual annotations of cluster AM:
•Start number 3 was manually annotated 2 times for cluster AM.
•Start number 4 was manually annotated 3 times for cluster AM.
•Start number 5 was manually annotated 3 times for cluster AM.

Info for manual annotations of cluster DV:
•Start number 1 was manually annotated 4 times for cluster DV.

***Gene Information:***

Gene: Arcadia_18 Start: 13315, Stop: 14601, Start Num: 4
Candidate Starts for Arcadia_18:
(Start: 4 @13315 has 3 MA's), (9, 13387), (11, 13429), (14, 13468), (18, 13513), (19, 13516), (20, 13522), (23, 13543), (27, 13585), (31, 13621), (37, 13783), (38, 13801), (41, 13837), (42, 13855), (66, 14185), (71, 14236), (77, 14296), (78, 14299), (79, 14302), (94, 14485), (102, 14596),

Gene: BenitoAntonio_19 Start: 14727, Stop: 16184, Start Num: 3
Candidate Starts for BenitoAntonio_19:
(Start: 3 @14727 has 2 MA's), (Start: 5 @14766 has 3 MA's), (10, 14850), (16, 14937), (19, 14970), (33, 15168), (46, 15402), (60, 15567), (68, 15732), (69, 15765), (79, 15858), (84, 15912), (90, 15966), (91, 15978), (95, 16068), (101, 16155),

Gene: BirthdayBoy_4 Start: 3417, Stop: 4841, Start Num: 1
Candidate Starts for BirthdayBoy_4:
(Start: 1 @3417 has 4 MA's), (7, 3573), (13, 3675), (16, 3708), (22, 3777), (25, 3813), (30, 3870), (32, 3882), (39, 4047), (40, 4065), (44, 4122), (48, 4170), (50, 4197), (52, 4206), (54, 4215), (57, 4278), (59,

4308), (63, 4437), (64, 4455), (67, 4473), (73, 4515), (75, 4524), (76, 4545), (81, 4572), (82, 4575), (87, 4602), (91, 4659), (96, 4752),

Gene: Bowling_19 Start: 14825, Stop: 16282, Start Num: 3
Candidate Starts for Bowling_19:
(Start: 3 @14825 has 2 MA's), (Start: 5 @14864 has 3 MA's), (10, 14948), (16, 15035), (19, 15068), (33, 15266), (46, 15500), (60, 15665), (68, 15830), (79, 15956), (84, 16010), (85, 16013), (90, 16064), (91, 16076), (95, 16166), (101, 16253),

Gene: Cheesy_19 Start: 14864, Stop: 16282, Start Num: 5
Candidate Starts for Cheesy_19:
(Start: 5 @14864 has 3 MA's), (10, 14948), (19, 15068), (60, 15665), (67, 15824), (68, 15830), (79, 15956), (80, 15962), (90, 16064), (92, 16100), (95, 16166), (99, 16229), (101, 16253),

Gene: Circum_19 Start: 14871, Stop: 16289, Start Num: 5
Candidate Starts for Circum_19:
(Start: 5 @14871 has 3 MA's), (10, 14955), (16, 15042), (60, 15672), (68, 15837), (79, 15963), (80, 15969), (90, 16071), (92, 16107), (93, 16143), (95, 16173), (99, 16236), (101, 16260),

Gene: Elsa_18 Start: 13315, Stop: 14601, Start Num: 4
Candidate Starts for Elsa_18:
(Start: 4 @13315 has 3 MA's), (9, 13387), (11, 13429), (14, 13468), (18, 13513), (19, 13516), (20, 13522), (23, 13543), (27, 13585), (31, 13621), (37, 13783), (38, 13801), (41, 13837), (42, 13855), (66, 14185), (71, 14236), (77, 14296), (78, 14299), (79, 14302), (94, 14485), (102, 14596),

Gene: Lila22_4 Start: 3409, Stop: 4914, Start Num: 1
Candidate Starts for Lila22_4:
(Start: 1 @3409 has 4 MA's), (2, 3457), (7, 3565), (8, 3589), (16, 3700), (21, 3763), (34, 3940), (35, 4000), (36, 4027), (45, 4174), (49, 4231), (51, 4246), (55, 4297), (56, 4303), (58, 4336), (65, 4516), (70, 4555), (71, 4567), (72, 4573), (74, 4585), (75, 4594), (83, 4645), (86, 4675), (88, 4714),

Gene: Nason_18 Start: 13315, Stop: 14601, Start Num: 4
Candidate Starts for Nason_18:
(Start: 4 @13315 has 3 MA's), (9, 13387), (11, 13429), (14, 13468), (18, 13513), (19, 13516), (20, 13522), (23, 13543), (27, 13585), (31, 13621), (37, 13783), (38, 13801), (41, 13837), (42, 13855), (66, 14185), (71, 14236), (77, 14296), (78, 14299), (79, 14302), (94, 14485), (102, 14596),

Gene: NorManre_4 Start: 3410, Stop: 4777, Start Num: 1
Candidate Starts for NorManre_4:
(Start: 1 @3410 has 4 MA's), (2, 3458), (6, 3542), (12, 3647), (17, 3704), (28, 3821), (29, 3836), (43, 4031), (53, 4115), (62, 4226), (77, 4472), (89, 4574), (90, 4580), (97, 4736), (100, 4757),

Gene: Patos_4 Start: 3410, Stop: 4777, Start Num: 1
Candidate Starts for Patos_4:
(Start: 1 @3410 has 4 MA's), (2, 3458), (6, 3542), (12, 3647), (17, 3704), (28, 3821), (29, 3836), (43, 4031), (53, 4115), (62, 4226), (77, 4472), (89, 4574), (90, 4580), (97, 4736), (100, 4757),

Gene: Tribby_19 Start: 14864, Stop: 16282, Start Num: 5
Candidate Starts for Tribby_19:
(Start: 5 @14864 has 3 MA's), (10, 14948), (19, 15068), (60, 15665), (67, 15824), (68, 15830), (79, 15956), (80, 15962), (90, 16064), (92, 16100), (95, 16166), (99, 16229), (101, 16253),

Gene: YoshiYama_17 Start: 12925, Stop: 14349, Start Num: 4

Candidate Starts for YoshiYama_17:
(Start: 4 @12925 has 3 MA's), (15, 13081), (24, 13192), (26, 13207), (33, 13333), (37, 13453), (47, 13597), (61, 13744), (67, 13891), (68, 13897), (69, 13930), (79, 14023), (92, 14167), (93, 14203), (95, 14233), (98, 14293),