Pham 296819

1: Westrich_49 + 4
2: Abidatro_41
3: Jamun_40
4: TaylorSipht_41
5: Orcanus_41
6: Laphuphu24k_42 + 4
7: Azaz_44 + 1
8: StuartMinion_35
9: DanHam62_43 + 2
10: McKinley_5
11: Sedona_6
12: Shivanishola_4
13: Keitabear_5
14: PhlipPhlop_69 + 1
15: Jarcob_70
16: Ovechkin_70
17: Kingsley_71

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 296819 Report

This analysis was run 04/25/26 on database version 644.

Pham number 296819 has 29 members, 10 are drafts.

Phages represented in each track:
• Track 1 : Westrich_49, KendraB23_51, Gravel_50, Amanises_50, Pelletreau_50
• Track 2 : Abidatro_41
• Track 3 : Jamun_40
• Track 4 : TaylorSipht_41
• Track 5 : Orcanus_41
• Track 6 : Laphuphu24k_42, Oppalora_42, Fingolfin_43, Juno112_42, HamCheese_43
• Track 7 : Azaz_44, Leona_42
• Track 8 : StuartMinion_35
• Track 9 : DanHam62_43, AmiCi24_42, Atlantica_43
• Track 10 : McKinley_5
• Track 11 : Sedona_6
• Track 12 : Shivanishola_4
• Track 13 : Keitabear_5
• Track 14 : PhlipPhlop_69, EmiMonkey_67
• Track 15 : Jarcob_70
• Track 16 : Ovechkin_70
• Track 17 : Kingsley_71

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

The start number called the most often in the published annotations is 15, it was called in 8 of the 19 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• AmiCi24_42, Atlantica_43, Azaz_44, DanHam62_43, Fingolfin_43, HamCheese_43, Juno112_42, Laphuphu24k_42, Leona_42, Oppalora_42, Shivanishola_4, StuartMinion_35,

Genes that have the "Most Annotated" start but do not call it:
• Abidatro_41, Amanises_50, EmiMonkey_67, Gravel_50, Jamun_40, KendraB23_51, Kingsley_71, Orcanus_41, Ovechkin_70, Pelletreau_50, PhlipPhlop_69, TaylorSipht_41, Westrich_49,

Genes that do not have the "Most Annotated" start:
• Jarcob_70, Keitabear_5, McKinley_5, Sedona_6,

Summary by start number:

Start 15:
• Found in 25 of 29 (86.2%) of genes in pham
• Manual Annotations of this start: 8 of 19
• Called 48.0% of time when present
• Phage (with cluster) where this start called: AmiCi24_42 (AS3), Atlantica_43 (AS3), Azaz_44 (AS3), DanHam62_43 (AS3), Fingolfin_43 (AS3), HamCheese_43 (AS3), Juno112_42 (AS3), Laphuphu24k_42 (AS3), Leona_42 (AS3), Oppalora_42 (AS3), Shivanishola_4 (DE1), StuartMinion_35 (AS3),

Start 16:
• Found in 2 of 29 (6.9%) of genes in pham
• Manual Annotations of this start: 1 of 19
• Called 50.0% of time when present
• Phage (with cluster) where this start called: Keitabear_5 (DE1),

Start 29:
• Found in 5 of 29 (17.2%) of genes in pham
• Manual Annotations of this start: 1 of 19
• Called 20.0% of time when present
• Phage (with cluster) where this start called: Kingsley_71 (F1),

Start 36:
• Found in 20 of 29 (69.0%) of genes in pham
• No Manual Annotations of this start.
• Called 25.0% of time when present
• Phage (with cluster) where this start called: Amanises_50 (AS1), Gravel_50 (AS1), KendraB23_51 (AS1), Pelletreau_50 (AS1), Westrich_49 (AS1),

Start 39:
• Found in 1 of 29 (3.4%) of genes in pham
• Manual Annotations of this start: 1 of 19
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Jarcob_70 (F1),

Start 42:
• Found in 1 of 29 (3.4%) of genes in pham
• Manual Annotations of this start: 1 of 19
• Called 100.0% of time when present
• Phage (with cluster) where this start called: McKinley_5 (DE1),

Start 45:
• Found in 9 of 29 (31.0%) of genes in pham
• Manual Annotations of this start: 4 of 19
• Called 44.4% of time when present
• Phage (with cluster) where this start called: Abidatro_41 (AS1), Jamun_40 (AS1), Orcanus_41 (AS1), TaylorSipht_41 (AS1),

Start 48:

• Found in 3 of 29 (10.3%) of genes in pham
• Manual Annotations of this start: 1 of 19
• Called 33.3% of time when present
• Phage (with cluster) where this start called: Sedona_6 (DE1),

Start 50:
• Found in 4 of 29 (13.8%) of genes in pham
• Manual Annotations of this start: 2 of 19
• Called 75.0% of time when present
• Phage (with cluster) where this start called: EmiMonkey_67 (F1), Ovechkin_70 (F1), PhlipPhlop_69 (F1),

Summary by clusters:

There are 4 clusters represented in this pham: AS3, F1, AS1, DE1,

Info for manual annotations of cluster AS1:
•Start number 45 was manually annotated 4 times for cluster AS1.

Info for manual annotations of cluster AS3:
•Start number 15 was manually annotated 7 times for cluster AS3.

Info for manual annotations of cluster DE1:
•Start number 15 was manually annotated 1 time for cluster DE1.
•Start number 16 was manually annotated 1 time for cluster DE1.
•Start number 42 was manually annotated 1 time for cluster DE1.
•Start number 48 was manually annotated 1 time for cluster DE1.

Info for manual annotations of cluster F1:
•Start number 29 was manually annotated 1 time for cluster F1.
•Start number 39 was manually annotated 1 time for cluster F1.
•Start number 50 was manually annotated 2 times for cluster F1.

Gene Information:

Gene: Abidatro_41 Start: 27763, Stop: 28476, Start Num: 45
Candidate Starts for Abidatro_41:
(Start: 15 @27487 has 8 MA's), (23, 27568), (27, 27604), (36, 27670), (Start: 45 @27763 has 4 MA's), (46, 27781), (54, 27901), (56, 27916), (57, 27934), (64, 28000), (65, 28015), (70, 28087), (75, 28162), (81, 28264), (83, 28339), (84, 28342), (93, 28459),

Gene: Amanises_50 Start: 28732, Stop: 29547, Start Num: 36
Candidate Starts for Amanises_50:
(Start: 15 @28549 has 8 MA's), (23, 28630), (27, 28666), (33, 28714), (36, 28732), (Start: 45 @28825 has 4 MA's), (46, 28843), (49, 28873), (51, 28945), (59, 29011), (71, 29158), (72, 29164), (75, 29230), (81, 29332), (83, 29407), (84, 29410), (93, 29527),

Gene: AmiCi24_42 Start: 27168, Stop: 27965, Start Num: 15
Candidate Starts for AmiCi24_42:
(Start: 15 @27168 has 8 MA's), (21, 27234), (23, 27249), (27, 27285), (33, 27333), (35, 27345), (36, 27351), (71, 27567), (72, 27573), (81, 27741), (83, 27816), (84, 27819), (92, 27927), (93, 27936), (94,

27948),

Gene: Atlantica_43 Start: 27170, Stop: 27967, Start Num: 15
Candidate Starts for Atlantica_43:
(Start: 15 @27170 has 8 MA's), (21, 27236), (23, 27251), (27, 27287), (33, 27335), (35, 27347), (36, 27353), (71, 27569), (72, 27575), (81, 27743), (83, 27818), (84, 27821), (92, 27929), (93, 27938), (94, 27950),

Gene: Azaz_44 Start: 27236, Stop: 28045, Start Num: 15
Candidate Starts for Azaz_44:
(Start: 15 @27236 has 8 MA's), (21, 27302), (23, 27317), (27, 27353), (33, 27401), (35, 27413), (36, 27419), (72, 27653), (73, 27656), (77, 27758), (81, 27821), (83, 27896), (84, 27899), (93, 28016),

Gene: DanHam62_43 Start: 27169, Stop: 27966, Start Num: 15
Candidate Starts for DanHam62_43:
(Start: 15 @27169 has 8 MA's), (21, 27235), (23, 27250), (27, 27286), (33, 27334), (35, 27346), (36, 27352), (71, 27568), (72, 27574), (81, 27742), (83, 27817), (84, 27820), (92, 27928), (93, 27937), (94, 27949),

Gene: EmiMonkey_67 Start: 47844, Stop: 48557, Start Num: 50
Candidate Starts for EmiMonkey_67:
(Start: 15 @47481 has 8 MA's), (20, 47538), (26, 47580), (27, 47595), (Start: 29 @47616 has 1 MA's), (38, 47697), (Start: 50 @47844 has 2 MA's), (52, 47865), (58, 47925), (69, 48165), (83, 48405), (84, 48408), (87, 48438), (89, 48465), (95, 48546),

Gene: Fingolfin_43 Start: 27172, Stop: 27969, Start Num: 15
Candidate Starts for Fingolfin_43:
(Start: 15 @27172 has 8 MA's), (21, 27238), (23, 27253), (27, 27289), (33, 27337), (35, 27349), (36, 27355), (71, 27571), (72, 27577), (81, 27745), (83, 27820), (84, 27823), (92, 27931), (93, 27940),

Gene: Gravel_50 Start: 28545, Stop: 29360, Start Num: 36
Candidate Starts for Gravel_50:
(Start: 15 @28362 has 8 MA's), (23, 28443), (27, 28479), (33, 28527), (36, 28545), (Start: 45 @28638 has 4 MA's), (46, 28656), (49, 28686), (51, 28758), (59, 28824), (71, 28971), (72, 28977), (75, 29043), (81, 29145), (83, 29220), (84, 29223), (93, 29340),

Gene: HamCheese_43 Start: 27156, Stop: 27953, Start Num: 15
Candidate Starts for HamCheese_43:
(Start: 15 @27156 has 8 MA's), (21, 27222), (23, 27237), (27, 27273), (33, 27321), (35, 27333), (36, 27339), (71, 27555), (72, 27561), (81, 27729), (83, 27804), (84, 27807), (92, 27915), (93, 27924),

Gene: Jamun_40 Start: 27823, Stop: 28545, Start Num: 45
Candidate Starts for Jamun_40:
(Start: 15 @27547 has 8 MA's), (21, 27613), (23, 27628), (27, 27664), (33, 27712), (35, 27724), (36, 27730), (Start: 45 @27823 has 4 MA's), (46, 27841), (49, 27871), (51, 27943), (62, 28057), (64, 28069), (71, 28156), (72, 28162), (73, 28165), (75, 28228), (81, 28330), (83, 28405), (84, 28408), (93, 28525),

Gene: Jarcob_70 Start: 45803, Stop: 46582, Start Num: 39
Candidate Starts for Jarcob_70:
(22, 45638), (25, 45668), (32, 45740), (Start: 39 @45803 has 1 MA's), (44, 45866), (55, 46013), (60, 46082), (64, 46124), (69, 46208), (73, 46217), (76, 46280), (80, 46361), (83, 46439), (84, 46442), (86, 46463), (89, 46499), (92, 46547), (94, 46565), (95, 46571),

Gene: Juno112_42 Start: 27172, Stop: 27969, Start Num: 15
Candidate Starts for Juno112_42:
(Start: 15 @27172 has 8 MA's), (21, 27238), (23, 27253), (27, 27289), (33, 27337), (35, 27349), (36, 27355), (71, 27571), (72, 27577), (81, 27745), (83, 27820), (84, 27823), (92, 27931), (93, 27940),

Gene: Keitabear_5 Start: 4089, Stop: 5051, Start Num: 16
Candidate Starts for Keitabear_5:
(1, 3228), (2, 3420), (3, 3450), (4, 3477), (5, 3513), (6, 3549), (7, 3666), (8, 3678), (9, 3765), (10, 3807), (11, 3819), (12, 3825), (13, 3969), (14, 3993), (Start: 16 @4089 has 1 MA's), (19, 4110), (34, 4245), (Start: 48 @4350 has 1 MA's), (53, 4446), (66, 4614), (67, 4635), (71, 4656), (83, 4905), (84, 4908), (85, 4911), (90, 4989),

Gene: KendraB23_51 Start: 28732, Stop: 29547, Start Num: 36
Candidate Starts for KendraB23_51:
(Start: 15 @28549 has 8 MA's), (23, 28630), (27, 28666), (33, 28714), (36, 28732), (Start: 45 @28825 has 4 MA's), (46, 28843), (49, 28873), (51, 28945), (59, 29011), (71, 29158), (72, 29164), (75, 29230), (81, 29332), (83, 29407), (84, 29410), (93, 29527),

Gene: Kingsley_71 Start: 46661, Stop: 47491, Start Num: 29
Candidate Starts for Kingsley_71:
(Start: 15 @46526 has 8 MA's), (20, 46583), (24, 46607), (26, 46625), (27, 46640), (Start: 29 @46661 has 1 MA's), (Start: 50 @46967 has 2 MA's), (52, 46988), (63, 47090), (83, 47339), (84, 47342), (87, 47372), (89, 47399), (95, 47480),

Gene: Laphuphu24k_42 Start: 27156, Stop: 27953, Start Num: 15
Candidate Starts for Laphuphu24k_42:
(Start: 15 @27156 has 8 MA's), (21, 27222), (23, 27237), (27, 27273), (33, 27321), (35, 27333), (36, 27339), (71, 27555), (72, 27561), (81, 27729), (83, 27804), (84, 27807), (92, 27915), (93, 27924),

Gene: Leona_42 Start: 27237, Stop: 28046, Start Num: 15
Candidate Starts for Leona_42:
(Start: 15 @27237 has 8 MA's), (21, 27303), (23, 27318), (27, 27354), (33, 27402), (35, 27414), (36, 27420), (72, 27654), (73, 27657), (77, 27759), (81, 27822), (83, 27897), (84, 27900), (93, 28017),

Gene: McKinley_5 Start: 3198, Stop: 3983, Start Num: 42
Candidate Starts for McKinley_5:
(37, 3156), (40, 3165), (Start: 42 @3198 has 1 MA's), (43, 3204), (47, 3228), (53, 3327), (66, 3495), (67, 3516), (71, 3537), (83, 3786), (84, 3789), (85, 3792), (86, 3810), (88, 3873), (90, 3921),

Gene: Oppalora_42 Start: 27170, Stop: 27967, Start Num: 15
Candidate Starts for Oppalora_42:
(Start: 15 @27170 has 8 MA's), (21, 27236), (23, 27251), (27, 27287), (33, 27335), (35, 27347), (36, 27353), (71, 27569), (72, 27575), (81, 27743), (83, 27818), (84, 27821), (92, 27929), (93, 27938),

Gene: Orcanus_41 Start: 28182, Stop: 28904, Start Num: 45
Candidate Starts for Orcanus_41:
(Start: 15 @27906 has 8 MA's), (23, 27987), (27, 28023), (33, 28071), (36, 28089), (Start: 45 @28182 has 4 MA's), (46, 28200), (49, 28230), (51, 28302), (68, 28503), (71, 28515), (72, 28521), (73, 28524), (75, 28587), (81, 28689), (83, 28764), (84, 28767), (93, 28884),

Gene: Ovechkin_70 Start: 44498, Stop: 45319, Start Num: 50
Candidate Starts for Ovechkin_70:

(Start: 15 @44057 has 8 MA's), (20, 44114), (24, 44138), (26, 44156), (27, 44171), (Start: 29 @44192 has 1 MA's), (31, 44210), (33, 44225), (36, 44243), (Start: 50 @44498 has 2 MA's), (52, 44519), (58, 44579), (61, 44735), (69, 44927), (80, 45089), (83, 45167), (84, 45170), (87, 45200), (89, 45227), (95, 45308),

Gene: Pelletreau_50 Start: 28545, Stop: 29360, Start Num: 36
Candidate Starts for Pelletreau_50:
(Start: 15 @28362 has 8 MA's), (23, 28443), (27, 28479), (33, 28527), (36, 28545), (Start: 45 @28638 has 4 MA's), (46, 28656), (49, 28686), (51, 28758), (59, 28824), (71, 28971), (72, 28977), (75, 29043), (81, 29145), (83, 29220), (84, 29223), (93, 29340),

Gene: PhlipPhlop_69 Start: 47844, Stop: 48557, Start Num: 50
Candidate Starts for PhlipPhlop_69:
(Start: 15 @47481 has 8 MA's), (20, 47538), (26, 47580), (27, 47595), (Start: 29 @47616 has 1 MA's), (38, 47697), (Start: 50 @47844 has 2 MA's), (52, 47865), (58, 47925), (69, 48165), (83, 48405), (84, 48408), (87, 48438), (89, 48465), (95, 48546),

Gene: Sedona_6 Start: 4350, Stop: 5051, Start Num: 48
Candidate Starts for Sedona_6:
(1, 3228), (2, 3420), (3, 3450), (4, 3477), (5, 3513), (6, 3549), (7, 3666), (8, 3678), (9, 3765), (10, 3807), (11, 3819), (12, 3825), (13, 3969), (14, 3993), (Start: 16 @4089 has 1 MA's), (19, 4110), (34, 4245), (Start: 48 @4350 has 1 MA's), (53, 4446), (66, 4614), (67, 4635), (71, 4656), (83, 4905), (84, 4908), (85, 4911), (90, 4989),

Gene: Shivanishola_4 Start: 2785, Stop: 3819, Start Num: 15
Candidate Starts for Shivanishola_4:
(Start: 15 @2785 has 8 MA's), (17, 2821), (26, 2884), (27, 2899), (Start: 29 @2920 has 1 MA's), (31, 2938), (34, 2962), (Start: 48 @3067 has 1 MA's), (53, 3163), (66, 3331), (67, 3352), (71, 3373), (83, 3622), (84, 3625), (85, 3628), (86, 3646), (88, 3709), (90, 3757),

Gene: StuartMinion_35 Start: 24235, Stop: 25020, Start Num: 15
Candidate Starts for StuartMinion_35:
(Start: 15 @24235 has 8 MA's), (18, 24274), (21, 24301), (27, 24352), (28, 24367), (30, 24388), (33, 24400), (36, 24418), (41, 24430), (63, 24526), (72, 24625), (74, 24676), (79, 24745), (81, 24796), (82, 24844), (83, 24871), (84, 24874), (91, 24958), (93, 24991), (94, 25003),

Gene: TaylorSipht_41 Start: 27587, Stop: 28306, Start Num: 45
Candidate Starts for TaylorSipht_41:
(Start: 15 @27311 has 8 MA's), (23, 27392), (27, 27428), (Start: 45 @27587 has 4 MA's), (46, 27605), (49, 27635), (51, 27707), (72, 27923), (78, 28034), (81, 28091), (83, 28166), (84, 28169), (93, 28286),

Gene: Westrich_49 Start: 28469, Stop: 29284, Start Num: 36
Candidate Starts for Westrich_49:
(Start: 15 @28286 has 8 MA's), (23, 28367), (27, 28403), (33, 28451), (36, 28469), (Start: 45 @28562 has 4 MA's), (46, 28580), (49, 28610), (51, 28682), (59, 28748), (71, 28895), (72, 28901), (75, 28967), (81, 29069), (83, 29144), (84, 29147), (93, 29264),