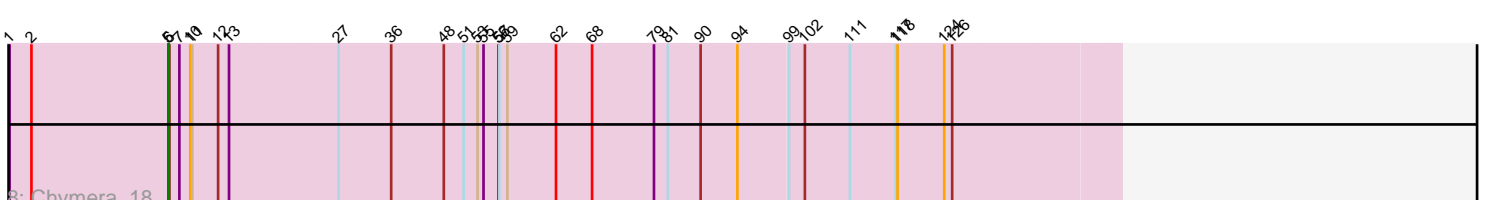
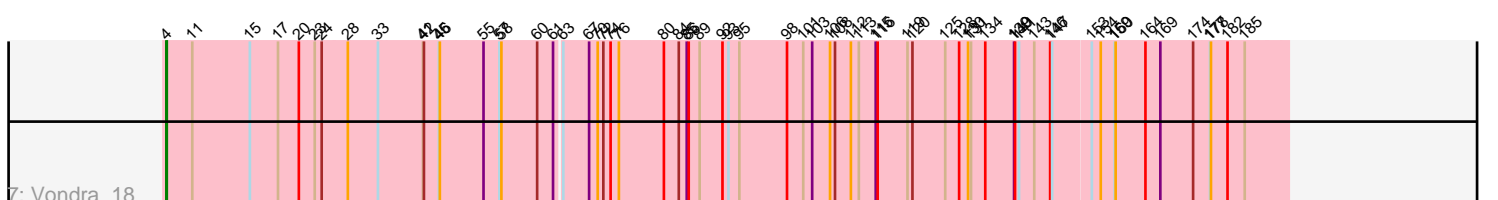
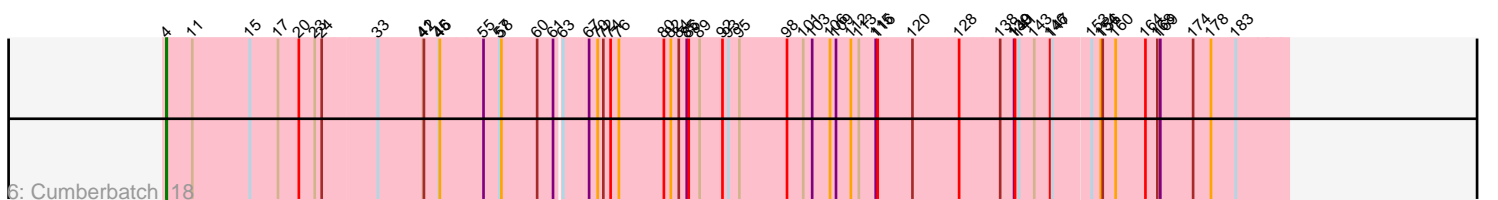
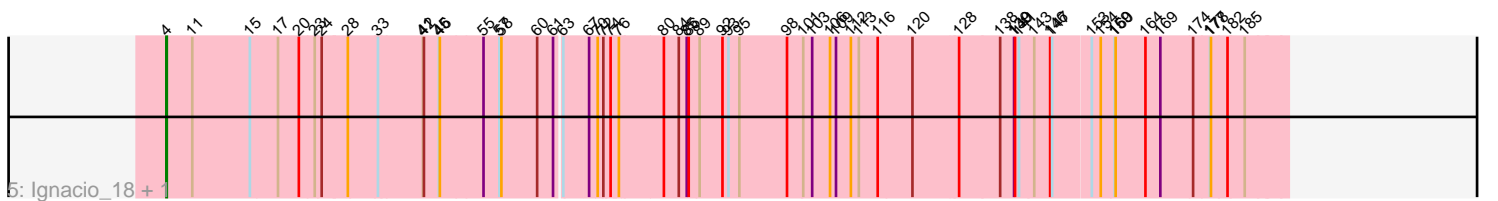
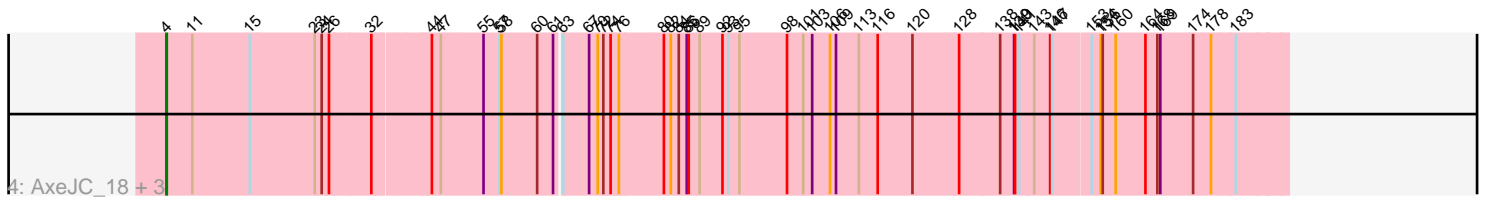
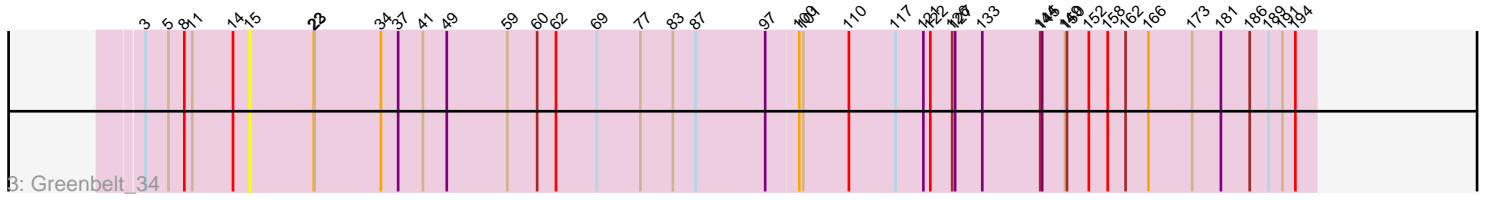
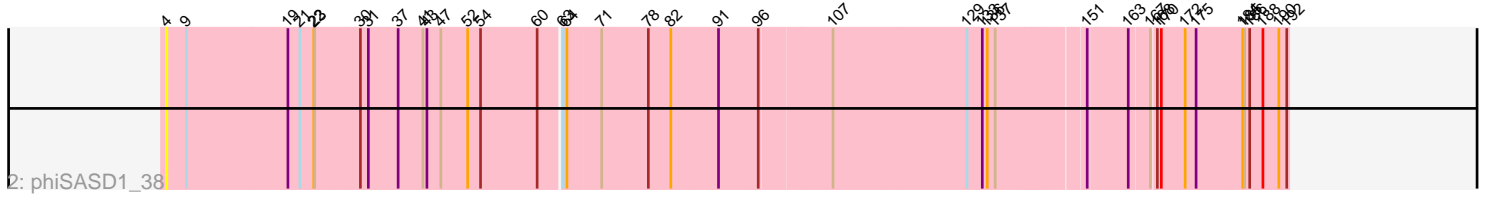
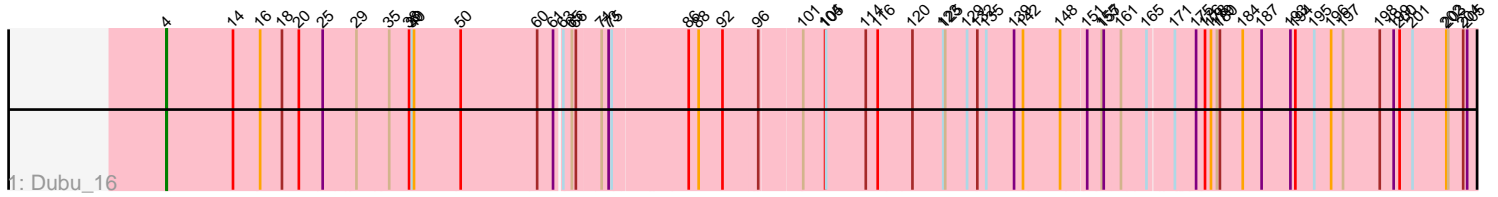


# Pham 213149



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 213149 Report

This analysis was run 02/22/25 on database version 588.

Pham number 213149 has 12 members, 2 are drafts.

Phages represented in each track:

- Track 1 : Dubu\_16
- Track 2 : phiSASD1\_38
- Track 3 : Greenbelt\_34
- Track 4 : AxeJC\_18, Piccadilly\_18, Eklok\_18, Eastland\_18
- Track 5 : Ignacio\_18, HFrancette\_18
- Track 6 : Cumberbatch\_18
- Track 7 : Vondra\_18
- Track 8 : Chymera\_18

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

The start number called the most often in the published annotations is 4, it was called in 9 of the 10 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- AxeJC\_18, Cumberbatch\_18, Dubu\_16, Eastland\_18, Eklok\_18, HFrancette\_18, Ignacio\_18, Piccadilly\_18, Vondra\_18, phiSASD1\_38,

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

- 

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

- Chymera\_18, Greenbelt\_34,

### **Summary by start number:**

Start 4:

- Found in 10 of 12 ( 83.3% ) of genes in pham
- Manual Annotations of this start: 9 of 10
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AxeJC\_18 (BP), Cumberbatch\_18 (BP), Dubu\_16 (BJ), Eastland\_18 (BP), Eklok\_18 (BP), HFrancette\_18 (BP), Ignacio\_18 (BP), Piccadilly\_18 (BP), Vondra\_18 (BP), phiSASD1\_38 (BJ),

Start 5:

- Found in 2 of 12 ( 16.7% ) of genes in pham
- Manual Annotations of this start: 1 of 10
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Chymera\_18 (singleton),

Start 15:

- Found in 9 of 12 ( 75.0% ) of genes in pham
- No Manual Annotations of this start.
- Called 11.1% of time when present
- Phage (with cluster) where this start called: Greenbelt\_34 (BN),

**Summary by clusters:**

There are 4 clusters represented in this pham: BN, BP, singleton, BJ,

Info for manual annotations of cluster BJ:

- Start number 4 was manually annotated 1 time for cluster BJ.

Info for manual annotations of cluster BP:

- Start number 4 was manually annotated 8 times for cluster BP.

**Gene Information:**

Gene: AxeJC\_18 Start: 13340, Stop: 16588, Start Num: 4

Candidate Starts for AxeJC\_18:

(Start: 4 @13340 has 9 MA's), (11, 13418), (15, 13592), (23, 13784), (24, 13802), (26, 13823), (32, 13931), (44, 14093), (47, 14120), (55, 14246), (57, 14294), (58, 14300), (60, 14408), (61, 14456), (63, 14471), (67, 14540), (70, 14561), (72, 14576), (74, 14597), (76, 14618), (80, 14741), (82, 14762), (84, 14786), (85, 14810), (86, 14816), (89, 14846), (92, 14915), (93, 14933), (95, 14966), (98, 15110), (101, 15158), (103, 15185), (106, 15239), (109, 15257), (113, 15326), (116, 15383), (120, 15485), (128, 15620), (138, 15743), (139, 15785), (140, 15788), (141, 15800), (143, 15845), (146, 15893), (147, 15899), (153, 16010), (154, 16037), (156, 16043), (160, 16079), (164, 16169), (168, 16205), (169, 16214), (174, 16310), (178, 16361), (183, 16433),

Gene: Chymera\_18 Start: 12990, Stop: 15758, Start Num: 5

Candidate Starts for Chymera\_18:

(1, 12510), (2, 12576), (Start: 5 @12990 has 1 MA's), (6, 12993), (7, 13023), (10, 13050), (11, 13056), (12, 13134), (13, 13167), (27, 13488), (36, 13647), (48, 13803), (51, 13863), (53, 13905), (55, 13923), (56, 13968), (57, 13971), (59, 13995), (62, 14136), (68, 14238), (79, 14406), (81, 14448), (90, 14538), (94, 14646), (99, 14775), (102, 14823), (111, 14958), (117, 15096), (118, 15102), (124, 15240), (126, 15264),

Gene: Cumberbatch\_18 Start: 13326, Stop: 16589, Start Num: 4

Candidate Starts for Cumberbatch\_18:

(Start: 4 @13326 has 9 MA's), (11, 13404), (15, 13578), (17, 13659), (20, 13722), (23, 13767), (24, 13785), (33, 13938), (41, 14070), (42, 14073), (45, 14118), (46, 14121), (55, 14247), (57, 14295), (58, 14301), (60, 14409), (61, 14457), (63, 14472), (67, 14541), (70, 14562), (72, 14577), (74, 14598), (76, 14619), (80, 14742), (82, 14763), (84, 14787), (85, 14811), (86, 14817), (89, 14847), (92, 14916), (93, 14934), (95, 14967), (98, 15111), (101, 15159), (103, 15186), (106, 15240), (109, 15258), (112,

15303), (113, 15327), (115, 15378), (116, 15384), (120, 15486), (128, 15621), (138, 15744), (139, 15786), (140, 15789), (141, 15801), (143, 15846), (146, 15894), (147, 15900), (153, 16011), (154, 16038), (156, 16044), (160, 16080), (164, 16170), (168, 16206), (169, 16215), (174, 16311), (178, 16362), (183, 16434),

Gene: Dubu\_16 Start: 11016, Stop: 14837, Start Num: 4

Candidate Starts for Dubu\_16:

(Start: 4 @11016 has 9 MA's), (14, 11208), (16, 11289), (18, 11355), (20, 11406), (25, 11475), (29, 11568), (35, 11664), (38, 11724), (39, 11733), (40, 11739), (50, 11877), (60, 12105), (61, 12153), (63, 12168), (65, 12192), (66, 12204), (71, 12270), (73, 12291), (75, 12300), (86, 12510), (88, 12540), (92, 12612), (96, 12711), (101, 12828), (104, 12894), (105, 12897), (114, 13017), (116, 13053), (120, 13152), (123, 13245), (125, 13251), (129, 13317), (132, 13347), (135, 13374), (139, 13458), (142, 13485), (148, 13596), (151, 13659), (155, 13701), (157, 13707), (161, 13752), (165, 13821), (171, 13890), (175, 13947), (176, 13971), (178, 13989), (179, 14007), (180, 14016), (184, 14085), (187, 14142), (193, 14229), (194, 14244), (195, 14301), (196, 14352), (197, 14388), (198, 14499), (199, 14541), (200, 14559), (201, 14598), (202, 14700), (203, 14706), (204, 14751), (205, 14763),

Gene: Eastland\_18 Start: 13325, Stop: 16573, Start Num: 4

Candidate Starts for Eastland\_18:

(Start: 4 @13325 has 9 MA's), (11, 13403), (15, 13577), (23, 13769), (24, 13787), (26, 13808), (32, 13916), (44, 14078), (47, 14105), (55, 14231), (57, 14279), (58, 14285), (60, 14393), (61, 14441), (63, 14456), (67, 14525), (70, 14546), (72, 14561), (74, 14582), (76, 14603), (80, 14726), (82, 14747), (84, 14771), (85, 14795), (86, 14801), (89, 14831), (92, 14900), (93, 14918), (95, 14951), (98, 15095), (101, 15143), (103, 15170), (106, 15224), (109, 15242), (113, 15311), (116, 15368), (120, 15470), (128, 15605), (138, 15728), (139, 15770), (140, 15773), (141, 15785), (143, 15830), (146, 15878), (147, 15884), (153, 15995), (154, 16022), (156, 16028), (160, 16064), (164, 16154), (168, 16190), (169, 16199), (174, 16295), (178, 16346), (183, 16418),

Gene: Eklok\_18 Start: 13340, Stop: 16588, Start Num: 4

Candidate Starts for Eklok\_18:

(Start: 4 @13340 has 9 MA's), (11, 13418), (15, 13592), (23, 13784), (24, 13802), (26, 13823), (32, 13931), (44, 14093), (47, 14120), (55, 14246), (57, 14294), (58, 14300), (60, 14408), (61, 14456), (63, 14471), (67, 14540), (70, 14561), (72, 14576), (74, 14597), (76, 14618), (80, 14741), (82, 14762), (84, 14786), (85, 14810), (86, 14816), (89, 14846), (92, 14915), (93, 14933), (95, 14966), (98, 15110), (101, 15158), (103, 15185), (106, 15239), (109, 15257), (113, 15326), (116, 15383), (120, 15485), (128, 15620), (138, 15743), (139, 15785), (140, 15788), (141, 15800), (143, 15845), (146, 15893), (147, 15899), (153, 16010), (154, 16037), (156, 16043), (160, 16079), (164, 16169), (168, 16205), (169, 16214), (174, 16310), (178, 16361), (183, 16433),

Gene: Greenbelt\_34 Start: 15125, Stop: 18262, Start Num: 15

Candidate Starts for Greenbelt\_34:

(3, 14813), (Start: 5 @14882 has 1 MA's), (8, 14927), (11, 14951), (14, 15074), (15, 15125), (22, 15311), (23, 15314), (34, 15509), (37, 15557), (41, 15629), (49, 15692), (59, 15869), (60, 15956), (62, 16013), (69, 16133), (77, 16265), (83, 16361), (87, 16430), (97, 16619), (100, 16712), (101, 16724), (110, 16862), (117, 17000), (121, 17081), (122, 17102), (126, 17168), (127, 17177), (133, 17258), (144, 17429), (145, 17435), (149, 17504), (150, 17510), (152, 17576), (158, 17633), (162, 17687), (166, 17756), (173, 17888), (181, 17975), (186, 18062), (189, 18119), (191, 18161), (194, 18200),

Gene: HFrancette\_18 Start: 13339, Stop: 16602, Start Num: 4

Candidate Starts for HFrancette\_18:

(Start: 4 @13339 has 9 MA's), (11, 13417), (15, 13591), (17, 13672), (20, 13735), (23, 13780), (24, 13798), (28, 13864), (33, 13951), (41, 14083), (42, 14086), (45, 14131), (46, 14134), (55, 14260), (57, 14308), (58, 14314), (60, 14422), (61, 14470), (63, 14485), (67, 14554), (70, 14575), (72, 14590), (74,

14611), (76, 14632), (80, 14755), (84, 14800), (85, 14824), (86, 14830), (89, 14860), (92, 14929), (93, 14947), (95, 14980), (98, 15124), (101, 15172), (103, 15199), (106, 15253), (109, 15271), (112, 15316), (113, 15340), (116, 15397), (120, 15499), (128, 15634), (138, 15757), (139, 15799), (140, 15802), (141, 15814), (143, 15859), (146, 15907), (147, 15913), (153, 16024), (154, 16051), (159, 16090), (160, 16093), (164, 16183), (169, 16228), (174, 16324), (177, 16372), (178, 16375), (182, 16423), (185, 16474),

Gene: Ignacio\_18 Start: 13339, Stop: 16602, Start Num: 4

Candidate Starts for Ignacio\_18:

(Start: 4 @13339 has 9 MA's), (11, 13417), (15, 13591), (17, 13672), (20, 13735), (23, 13780), (24, 13798), (28, 13864), (33, 13951), (41, 14083), (42, 14086), (45, 14131), (46, 14134), (55, 14260), (57, 14308), (58, 14314), (60, 14422), (61, 14470), (63, 14485), (67, 14554), (70, 14575), (72, 14590), (74, 14611), (76, 14632), (80, 14755), (84, 14800), (85, 14824), (86, 14830), (89, 14860), (92, 14929), (93, 14947), (95, 14980), (98, 15124), (101, 15172), (103, 15199), (106, 15253), (109, 15271), (112, 15316), (113, 15340), (116, 15397), (120, 15499), (128, 15634), (138, 15757), (139, 15799), (140, 15802), (141, 15814), (143, 15859), (146, 15907), (147, 15913), (153, 16024), (154, 16051), (159, 16090), (160, 16093), (164, 16183), (169, 16228), (174, 16324), (177, 16372), (178, 16375), (182, 16423), (185, 16474),

Gene: Piccadilly\_18 Start: 13324, Stop: 16572, Start Num: 4

Candidate Starts for Piccadilly\_18:

(Start: 4 @13324 has 9 MA's), (11, 13402), (15, 13576), (23, 13768), (24, 13786), (26, 13807), (32, 13915), (44, 14077), (47, 14104), (55, 14230), (57, 14278), (58, 14284), (60, 14392), (61, 14440), (63, 14455), (67, 14524), (70, 14545), (72, 14560), (74, 14581), (76, 14602), (80, 14725), (82, 14746), (84, 14770), (85, 14794), (86, 14800), (89, 14830), (92, 14899), (93, 14917), (95, 14950), (98, 15094), (101, 15142), (103, 15169), (106, 15223), (109, 15241), (113, 15310), (116, 15367), (120, 15469), (128, 15604), (138, 15727), (139, 15769), (140, 15772), (141, 15784), (143, 15829), (146, 15877), (147, 15883), (153, 15994), (154, 16021), (156, 16027), (160, 16063), (164, 16153), (168, 16189), (169, 16198), (174, 16294), (178, 16345), (183, 16417),

Gene: Vondra\_18 Start: 13338, Stop: 16601, Start Num: 4

Candidate Starts for Vondra\_18:

(Start: 4 @13338 has 9 MA's), (11, 13416), (15, 13590), (17, 13671), (20, 13734), (23, 13779), (24, 13797), (28, 13863), (33, 13950), (41, 14082), (42, 14085), (45, 14130), (46, 14133), (55, 14259), (57, 14307), (58, 14313), (60, 14421), (61, 14469), (63, 14484), (67, 14553), (70, 14574), (72, 14589), (74, 14610), (76, 14631), (80, 14754), (84, 14799), (85, 14823), (86, 14829), (89, 14859), (92, 14928), (93, 14946), (95, 14979), (98, 15123), (101, 15171), (103, 15198), (106, 15252), (108, 15267), (112, 15315), (113, 15339), (115, 15390), (116, 15396), (119, 15483), (120, 15498), (125, 15597), (128, 15633), (130, 15660), (131, 15669), (134, 15711), (139, 15798), (140, 15801), (141, 15813), (143, 15858), (146, 15906), (147, 15912), (153, 16023), (154, 16050), (159, 16089), (160, 16092), (164, 16182), (169, 16227), (174, 16323), (177, 16371), (178, 16374), (182, 16422), (185, 16473),

Gene: phiSASD1\_38 Start: 11644, Stop: 14799, Start Num: 4

Candidate Starts for phiSASD1\_38:

(Start: 4 @11644 has 9 MA's), (9, 11698), (19, 12004), (21, 12040), (22, 12076), (23, 12079), (30, 12208), (31, 12232), (37, 12316), (41, 12391), (43, 12403), (47, 12445), (52, 12523), (54, 12562), (60, 12730), (63, 12793), (64, 12802), (71, 12895), (78, 13027), (82, 13093), (91, 13228), (96, 13339), (107, 13546), (129, 13945), (133, 13990), (136, 14005), (137, 14029), (151, 14266), (163, 14356), (167, 14410), (168, 14419), (170, 14431), (172, 14500), (175, 14530), (184, 14665), (185, 14671), (186, 14686), (188, 14725), (190, 14770), (192, 14794),