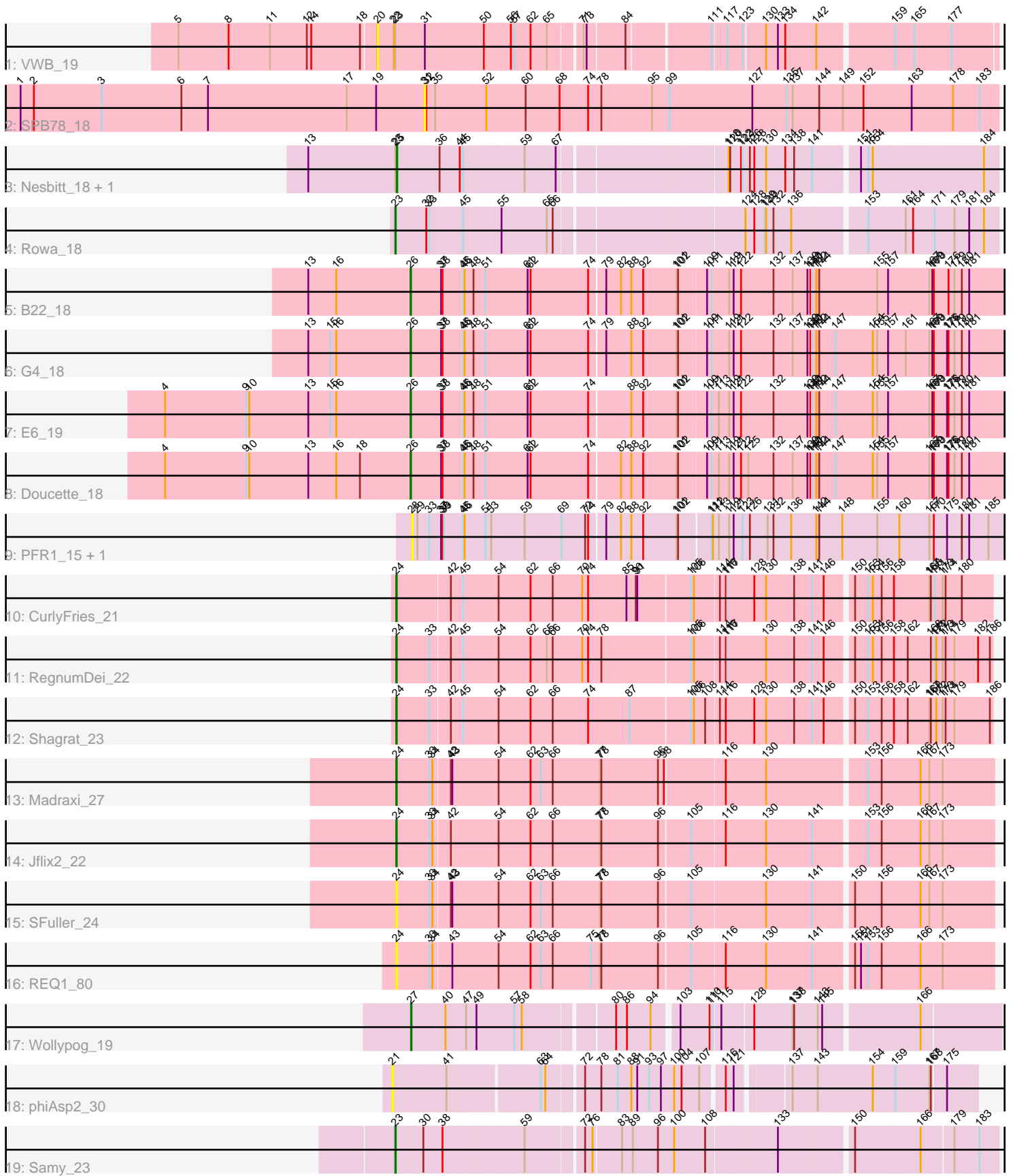


Pham 305325



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 305325 Report

This analysis was run 06/08/26 on database version 649.

Pham number 305325 has 21 members, 7 are drafts.

Phages represented in each track:

- Track 1 : VWB\_19
- Track 2 : SPB78\_18
- Track 3 : Nesbitt\_18, AbbeyMikolon\_18
- Track 4 : Rowa\_18
- Track 5 : B22\_18
- Track 6 : G4\_18
- Track 7 : E6\_19
- Track 8 : Doucette\_18
- Track 9 : PFR1\_15, PFR2\_17
- Track 10 : CurlyFries\_21
- Track 11 : RegnumDei\_22
- Track 12 : Shagrat\_23
- Track 13 : Madraxi\_27
- Track 14 : Jflix2\_22
- Track 15 : SFuller\_24
- Track 16 : REQ1\_80
- Track 17 : Wolypog\_19
- Track 18 : phiAsp2\_30
- Track 19 : Samy\_23

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

The start number called the most often in the published annotations is 24, it was called in 5 of the 14 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- CurlyFries\_21, Jflix2\_22, Madraxi\_27, REQ1\_80, RegnumDei\_22, SFuller\_24, Shagrat\_23,

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

- 

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

- AbbeyMikolon\_18, B22\_18, Doucette\_18, E6\_19, G4\_18, Nesbitt\_18, PFR1\_15, PFR2\_17, Rowa\_18, SPB78\_18, Samy\_23, VWB\_19, Wollypog\_19, phiAsp2\_30,

### Summary by start number:

#### Start 20:

- Found in 1 of 21 ( 4.8% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: VWB\_19 (BA),

#### Start 21:

- Found in 1 of 21 ( 4.8% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: phiAsp2\_30 (singleton),

#### Start 23:

- Found in 5 of 21 ( 23.8% ) of genes in pham
- Manual Annotations of this start: 2 of 14
- Called 40.0% of time when present
- Phage (with cluster) where this start called: Rowa\_18 (BL), Samy\_23 (singleton),

#### Start 24:

- Found in 7 of 21 ( 33.3% ) of genes in pham
- Manual Annotations of this start: 5 of 14
- Called 100.0% of time when present
- Phage (with cluster) where this start called: CurlyFries\_21 (CF), Jflix2\_22 (CF), Madraxi\_27 (CF), REQ1\_80 (CF), RegnumDei\_22 (CF), SFuller\_24 (CF), Shagrat\_23 (CF),

#### Start 25:

- Found in 2 of 21 ( 9.5% ) of genes in pham
- Manual Annotations of this start: 2 of 14
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AbbeyMikolon\_18 (BL), Nesbitt\_18 (BL),

#### Start 26:

- Found in 4 of 21 ( 19.0% ) of genes in pham
- Manual Annotations of this start: 4 of 14
- Called 100.0% of time when present
- Phage (with cluster) where this start called: B22\_18 (BW), Doucette\_18 (BW), E6\_19 (BW), G4\_18 (BW),

#### Start 27:

- Found in 1 of 21 ( 4.8% ) of genes in pham
- Manual Annotations of this start: 1 of 14
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Wollypog\_19 (singleton),

#### Start 28:

- Found in 2 of 21 ( 9.5% ) of genes in pham
- No Manual Annotations of this start.

- Called 100.0% of time when present
- Phage (with cluster) where this start called: PFR1\_15 (BX), PFR2\_17 (BX),

Start 31:

- Found in 2 of 21 ( 9.5% ) of genes in pham
- No Manual Annotations of this start.
- Called 50.0% of time when present
- Phage (with cluster) where this start called: SPB78\_18 (BA),

### Summary by clusters:

There are 6 clusters represented in this pham: singleton, BA, BL, CF, BW, BX,

Info for manual annotations of cluster BL:

- Start number 23 was manually annotated 1 time for cluster BL.
- Start number 25 was manually annotated 2 times for cluster BL.

Info for manual annotations of cluster BW:

- Start number 26 was manually annotated 4 times for cluster BW.

Info for manual annotations of cluster CF:

- Start number 24 was manually annotated 5 times for cluster CF.

### Gene Information:

Gene: AbbeyMikolon\_18 Start: 15163, Stop: 16281, Start Num: 25

Candidate Starts for AbbeyMikolon\_18:

(13, 14986), (Start: 23 @15160 has 2 MA's), (Start: 25 @15163 has 2 MA's), (36, 15247), (44, 15286), (45, 15292), (59, 15403), (67, 15463), (118, 15775), (120, 15778), (122, 15799), (123, 15802), (126, 15814), (128, 15823), (130, 15847), (134, 15883), (138, 15901), (141, 15937), (151, 16015), (153, 16030), (154, 16039), (184, 16252),

Gene: B22\_18 Start: 14570, Stop: 15742, Start Num: 26

Candidate Starts for B22\_18:

(13, 14363), (16, 14420), (Start: 26 @14570 has 4 MA's), (37, 14627), (38, 14630), (45, 14672), (46, 14675), (48, 14693), (51, 14717), (61, 14798), (62, 14804), (74, 14918), (79, 14948), (82, 14978), (88, 14999), (92, 15023), (101, 15089), (102, 15092), (109, 15146), (111, 15155), (119, 15191), (121, 15200), (122, 15215), (132, 15278), (137, 15317), (139, 15347), (140, 15353), (141, 15356), (142, 15365), (144, 15371), (155, 15485), (157, 15506), (167, 15584), (169, 15590), (170, 15593), (176, 15623), (179, 15635), (180, 15650), (181, 15662),

Gene: CurlyFries\_21 Start: 20993, Stop: 22120, Start Num: 24

Candidate Starts for CurlyFries\_21:

(Start: 24 @20993 has 5 MA's), (42, 21095), (45, 21119), (54, 21185), (62, 21248), (66, 21290), (70, 21347), (74, 21359), (85, 21437), (90, 21455), (91, 21458), (105, 21557), (106, 21563), (114, 21608), (116, 21620), (117, 21623), (128, 21677), (130, 21698), (138, 21752), (141, 21788), (146, 21809), (150, 21854), (153, 21881), (154, 21890), (156, 21908), (158, 21932), (167, 21998), (168, 22001), (171, 22007), (173, 22022), (174, 22028), (180, 22061),

Gene: Doucette\_18 Start: 14743, Stop: 15915, Start Num: 26

Candidate Starts for Doucette\_18:

(4, 14245), (9, 14410), (10, 14416), (13, 14536), (16, 14593), (18, 14641), (Start: 26 @14743 has 4 MA's), (37, 14800), (38, 14803), (45, 14845), (46, 14848), (48, 14866), (51, 14890), (61, 14971), (62, 14977), (74, 15091), (82, 15151), (88, 15172), (92, 15196), (101, 15262), (102, 15265), (109, 15319), (111, 15328), (113, 15343), (119, 15364), (121, 15373), (122, 15388), (125, 15403), (132, 15451), (137, 15490), (139, 15520), (140, 15526), (141, 15529), (142, 15538), (144, 15544), (147, 15577), (154, 15649), (155, 15658), (157, 15679), (167, 15757), (169, 15763), (170, 15766), (175, 15793), (176, 15796), (179, 15808), (180, 15823), (181, 15835),

Gene: E6\_19 Start: 14791, Stop: 15963, Start Num: 26

Candidate Starts for E6\_19:

(4, 14293), (9, 14458), (10, 14464), (13, 14584), (15, 14629), (16, 14641), (Start: 26 @14791 has 4 MA's), (37, 14848), (38, 14851), (45, 14893), (46, 14896), (48, 14914), (51, 14938), (61, 15019), (62, 15025), (74, 15139), (88, 15220), (92, 15244), (101, 15310), (102, 15313), (109, 15367), (111, 15376), (113, 15391), (119, 15412), (121, 15421), (122, 15436), (132, 15499), (139, 15568), (140, 15574), (141, 15577), (142, 15586), (144, 15592), (147, 15625), (154, 15697), (155, 15706), (157, 15727), (167, 15805), (169, 15811), (170, 15814), (175, 15841), (176, 15844), (179, 15856), (180, 15871), (181, 15883),

Gene: G4\_18 Start: 14733, Stop: 15905, Start Num: 26

Candidate Starts for G4\_18:

(13, 14526), (15, 14571), (16, 14583), (Start: 26 @14733 has 4 MA's), (37, 14790), (38, 14793), (45, 14835), (46, 14838), (48, 14856), (51, 14880), (61, 14961), (62, 14967), (74, 15081), (79, 15111), (88, 15162), (92, 15186), (101, 15252), (102, 15255), (109, 15309), (111, 15318), (119, 15354), (121, 15363), (122, 15378), (132, 15441), (137, 15480), (139, 15510), (140, 15516), (141, 15519), (142, 15528), (144, 15534), (147, 15567), (154, 15639), (155, 15648), (157, 15669), (161, 15702), (167, 15747), (169, 15753), (170, 15756), (175, 15783), (176, 15786), (179, 15798), (180, 15813), (181, 15825),

Gene: Jflix2\_22 Start: 23249, Stop: 24382, Start Num: 24

Candidate Starts for Jflix2\_22:

(Start: 24 @23249 has 5 MA's), (33, 23312), (34, 23318), (42, 23351), (54, 23441), (62, 23504), (66, 23546), (77, 23642), (78, 23645), (96, 23756), (105, 23816), (116, 23879), (130, 23957), (141, 24047), (153, 24140), (156, 24167), (166, 24242), (167, 24257), (173, 24281),

Gene: Madraxi\_27 Start: 25619, Stop: 26752, Start Num: 24

Candidate Starts for Madraxi\_27:

(Start: 24 @25619 has 5 MA's), (33, 25682), (34, 25688), (42, 25721), (43, 25724), (54, 25811), (62, 25874), (63, 25895), (66, 25916), (77, 26012), (78, 26015), (96, 26126), (98, 26138), (116, 26249), (130, 26327), (153, 26510), (156, 26537), (166, 26612), (167, 26627), (173, 26651),

Gene: Nesbitt\_18 Start: 15235, Stop: 16353, Start Num: 25

Candidate Starts for Nesbitt\_18:

(13, 15058), (Start: 23 @15232 has 2 MA's), (Start: 25 @15235 has 2 MA's), (36, 15319), (44, 15358), (45, 15364), (59, 15475), (67, 15535), (118, 15847), (120, 15850), (122, 15871), (123, 15874), (126, 15886), (128, 15895), (130, 15919), (134, 15955), (138, 15973), (141, 16009), (151, 16087), (153, 16102), (154, 16111), (184, 16324),

Gene: PFR1\_15 Start: 13778, Stop: 14950, Start Num: 28

Candidate Starts for PFR1\_15:

(28, 13778), (29, 13787), (33, 13811), (37, 13835), (38, 13838), (39, 13841), (45, 13880), (46, 13883), (51, 13925), (53, 13937), (59, 14000), (69, 14072), (72, 14120), (74, 14126), (79, 14156), (82, 14186),

(88, 14207), (92, 14231), (101, 14297), (102, 14300), (111, 14360), (112, 14363), (113, 14375), (119, 14396), (121, 14405), (123, 14423), (126, 14438), (131, 14471), (132, 14483), (136, 14519), (142, 14570), (144, 14576), (148, 14621), (155, 14690), (160, 14732), (167, 14789), (170, 14798), (175, 14825), (180, 14855), (181, 14867), (185, 14906),

Gene: PFR2\_17 Start: 15347, Stop: 16519, Start Num: 28

Candidate Starts for PFR2\_17:

(28, 15347), (29, 15356), (33, 15380), (37, 15404), (38, 15407), (39, 15410), (45, 15449), (46, 15452), (51, 15494), (53, 15506), (59, 15569), (69, 15641), (72, 15689), (74, 15695), (79, 15725), (82, 15755), (88, 15776), (92, 15800), (101, 15866), (102, 15869), (111, 15929), (112, 15932), (113, 15944), (119, 15965), (121, 15974), (123, 15992), (126, 16007), (131, 16040), (132, 16052), (136, 16088), (142, 16139), (144, 16145), (148, 16190), (155, 16259), (160, 16301), (167, 16358), (170, 16367), (175, 16394), (180, 16424), (181, 16436), (185, 16475),

Gene: REQ1\_80 Start: 46988, Stop: 48121, Start Num: 24

Candidate Starts for REQ1\_80:

(Start: 24 @46988 has 5 MA's), (33, 47051), (34, 47057), (43, 47093), (54, 47180), (62, 47243), (63, 47264), (66, 47285), (75, 47363), (77, 47381), (78, 47384), (96, 47495), (105, 47555), (116, 47618), (130, 47696), (141, 47786), (150, 47852), (151, 47864), (153, 47879), (156, 47906), (166, 47981), (173, 48020),

Gene: RegnumDei\_22 Start: 21738, Stop: 22865, Start Num: 24

Candidate Starts for RegnumDei\_22:

(Start: 24 @21738 has 5 MA's), (33, 21801), (42, 21840), (45, 21864), (54, 21930), (62, 21993), (65, 22023), (66, 22035), (70, 22092), (74, 22104), (78, 22131), (105, 22302), (106, 22308), (114, 22353), (116, 22365), (117, 22368), (130, 22443), (138, 22497), (141, 22533), (146, 22554), (150, 22599), (153, 22626), (154, 22635), (156, 22653), (158, 22677), (162, 22704), (168, 22746), (171, 22752), (172, 22755), (173, 22767), (174, 22773), (179, 22791), (182, 22836), (186, 22860),

Gene: Rowa\_18 Start: 15046, Stop: 16164, Start Num: 23

Candidate Starts for Rowa\_18:

(Start: 23 @15046 has 2 MA's), (32, 15103), (33, 15109), (45, 15175), (55, 15241), (65, 15328), (66, 15340), (124, 15691), (128, 15709), (129, 15730), (130, 15733), (132, 15748), (136, 15781), (153, 15916), (161, 15988), (164, 16003), (171, 16042), (179, 16081), (181, 16108), (184, 16138),

Gene: SFuller\_24 Start: 23845, Stop: 24978, Start Num: 24

Candidate Starts for SFuller\_24:

(Start: 24 @23845 has 5 MA's), (33, 23908), (34, 23914), (42, 23947), (43, 23950), (54, 24037), (62, 24100), (63, 24121), (66, 24142), (77, 24238), (78, 24241), (96, 24352), (105, 24412), (130, 24553), (141, 24643), (150, 24709), (156, 24763), (166, 24838), (167, 24853), (173, 24877),

Gene: SPB78\_18 Start: 14539, Stop: 15684, Start Num: 31

Candidate Starts for SPB78\_18:

(1, 13717), (2, 13744), (3, 13882), (6, 14044), (7, 14098), (17, 14380), (19, 14440), (31, 14539), (32, 14542), (35, 14560), (52, 14662), (60, 14740), (68, 14809), (74, 14866), (78, 14890), (95, 14992), (99, 15028), (127, 15193), (135, 15259), (137, 15271), (144, 15322), (149, 15370), (152, 15412), (163, 15508), (178, 15592), (183, 15646),

Gene: Samy\_23 Start: 18462, Stop: 19574, Start Num: 23

Candidate Starts for Samy\_23:

(Start: 23 @18462 has 2 MA's), (30, 18513), (38, 18552), (59, 18702), (72, 18807), (76, 18822), (83, 18876), (89, 18897), (96, 18945), (100, 18978), (108, 19038), (133, 19170), (150, 19305), (166, 19434), (179, 19491), (183, 19536),

Gene: Shagrat\_23 Start: 22765, Stop: 23892, Start Num: 24

Candidate Starts for Shagrat\_23:

(Start: 24 @22765 has 5 MA's), (33, 22828), (42, 22867), (45, 22891), (54, 22957), (62, 23020), (66, 23062), (74, 23131), (87, 23215), (105, 23329), (106, 23335), (108, 23356), (114, 23380), (116, 23392), (128, 23449), (130, 23470), (138, 23524), (141, 23560), (146, 23581), (150, 23626), (153, 23653), (156, 23680), (158, 23704), (162, 23731), (167, 23770), (168, 23773), (172, 23782), (173, 23794), (174, 23800), (179, 23818), (186, 23887),

Gene: VWB\_19 Start: 16658, Stop: 17779, Start Num: 20

Candidate Starts for VWB\_19:

(5, 16259), (8, 16361), (11, 16445), (12, 16520), (14, 16529), (18, 16628), (20, 16658), (22, 16688), (Start: 23 @16691 has 2 MA's), (31, 16745), (50, 16853), (56, 16901), (57, 16907), (62, 16940), (65, 16967), (71, 17027), (73, 17033), (84, 17105), (111, 17258), (117, 17285), (123, 17315), (130, 17354), (133, 17378), (134, 17393), (142, 17453), (159, 17594), (165, 17630), (177, 17696),

Gene: Wollypog\_19 Start: 17989, Stop: 19074, Start Num: 27

Candidate Starts for Wollypog\_19:

(Start: 27 @17989 has 1 MA's), (40, 18055), (47, 18097), (49, 18118), (57, 18193), (58, 18208), (80, 18373), (86, 18391), (94, 18439), (103, 18481), (110, 18538), (111, 18541), (115, 18556), (128, 18616), (137, 18691), (138, 18694), (143, 18736), (145, 18745), (166, 18922),

Gene: phiAsp2\_30 Start: 25990, Stop: 27063, Start Num: 21

Candidate Starts for phiAsp2\_30:

(21, 25990), (41, 26092), (63, 26269), (64, 26275), (72, 26341), (78, 26374), (81, 26407), (88, 26434), (91, 26446), (93, 26467), (97, 26488), (100, 26515), (104, 26530), (107, 26563), (116, 26602), (121, 26617), (137, 26713), (143, 26758), (154, 26866), (159, 26911), (167, 26974), (168, 26977), (175, 27004),