

Figure S1. AA alignment of Uk-C and CBM79.

VvGH17_451-615	SDADQFIVLDSALLTGGEAIAWEGTAYLAAEAGVLTLTPPTAGTAKDWG
CBM79_WP_009984389.1_495-622	---DGYTIKPNKKVTYSALGEDERMIGFSYKDFGISSEKITEVQVNISA
CBM79_WP_009984389.1_663-790	---DGFSIKPNQKVVTYSALGEDERMIGFAYKDFGISSDKITEVQVNISA
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VvGH17_451-615	WGAGVVLAGQAGANLTGFENGSLAFEIKGTTGSVLNIGFQTGLWGNNDRP
CBM79_WP_009984389.1_495-622	NKNIGKYVGQFGTSTTDSANGYWAMGDEITQSISGNSGTIT--WK---VP
CBM79_WP_009984389.1_663-790	NKNIGKYVGQFGTSTTDSANGYWAMGDEITQSISGNSGTIT--WK---VP
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VvGH17_451-615	QTNNFVVGPTGRAISTEWYTTIPMSELIKGNPDFSDVTSLIYFSGTAD
CBM79_WP_009984389.1_495-622	SDISSIIQTQYG--GEIKFGVWWIDCDEFT-----
CBM79_WP_009984389.1_663-790	SDISSIIQTQYG--GEIKFGVWWIDCDEFT-----
	* * *
VvGH17_451-615	IDGGVVEVRNVVFNK
CBM79_WP_009984389.1_495-622	IDSVVLKT-----
CBM79_WP_009984389.1_663-790	IDSVVLKT-----
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Figure S2. AA alignment of Figure 8.

VvGH17_451-615	-----SDADQFIVLDSALLTGGEAIAWEGTAYLAAEAGVLTLTTPP
CBM79_WP_009984389.1_495-622	-----DGYTIKPNKKVTYSALGEDERMIGFSYKDFGISSEKI
CBM79_WP_009984389.1_663-790	-----DGFSIKPNQKVVTYSALGEDERMIGFAYKDFGISSSDKI
CBM72_ACA61140.1_349-547	-----AYHGSAFEGKYPVHDSSKGTVAFEGEKTLWGEGVFVPSSML
CBM65_2YPJ	-----SGLVPRGSHMSSGADSGEILFSGSNHADFKAWGGDDW
CBM4_1GUI	-----SINNGTFDEPIVNDQANNPDEWF IWQAGDYGISGARVS
CBM6_5FUI	-----SGNTLKIEAESYLYSNDVQKEPCSEGGENVGYINNGSWMS
CBM6_1W9T	GSHMASDLKNPYERIQAAYDAMSGIQTEGTDGDDGGGDNIGWINDGDWVK
CBM22_1DYO	-----KPEEPDAGYYYHDTFEGSVGQWTARGPAEVLLSGRTAYKGSSEL
CBM85_MH727997_18-180	-----AEPQVPAGGQVLVAGEPSDWTGRYEQGYSEVAQVQGPFSRAVRV
CBM76_CAC83072.1_530-701	-----QADAFDGLKTYEETKTETKTVEFTDIESMTNDKGFVVVPI
CBM78_4V17	-----MGLAPLADGEKLYGKKGSEGTVTFTKAIGNAFV
VvGH17_451-615	TAGTAKDWGWAGVVLAGQAGANLTGFENGSLAFEIKGTTGSVLNIG---
CBM79_WP_009984389.1_495-622	TEVQVNI SANKNIGKYVGQFGTSTTDSANGYAMGDEITQSIGNSG---
CBM79_WP_009984389.1_663-790	TEVQVNI SANKNIGKYVGQFGTSTTDSANGYAMGDEITQSIGNSG---
CBM72_ACA61140.1_349-547	TDVGEDVEVELTYKLDFTDYDDIQFMYNNGGWQKIPSGLSMDGKAFDGAD
CBM65_2YPJ	PSAFEISPKYEPMKLDLNKNFEIKVDYNGADIVLIFARWDKDIWAQIS---
CBM4_1GUI	DYGVDRGYAYIT IADPGTDTWHIQFNQWIGLYRGKTYTISFKAKADTPRP
CBM6_5FUI	YPGINFPSSGNYLIEYRVASVDGGRFSSDLEAGETVLGELSPNTGG---
CBM6_1W9T	YERVHFERDASSIEVRVASDTPGGRIEIRTGSPTGTLGQVQVNTGG---
CBM22_1DYO	LVRNRTAAWNGAQRALNPRTFVPGNTYCFSSVASFIEGASSTTFCKMLQY
CBM85_MH727997_18-180	TTAERTAPWNVQFRVPVNPVAKGDVLLLEFWARCLRTEDESGQGYIRAC
CBM76_CAC83072.1_530-701	EDAHL SKIIINGAVTSSAGSSWATAGCAVCMNVTAKDGSFWTYKSYNL
CBM78_4V17	EIKTGADTGFMNGCLGFSESIDGKNYVWAYVWQTKKSDTISIDMSSPVQI
VvGH17_451-615	-FQTGLWGNDRPQTNNFVFGPTGRAISTEWAYTIPMSELIGNPDFS
CBM79_WP_009984389.1_495-622	-TIT--WK---VPSDISSIQTQYG--GEIKFGVWWIDCDEFT-----
CBM79_WP_009984389.1_663-790	-TIT--WK---VPSDISSIQTQYG--GEIKFGVWWIDCDEFT-----
CBM72_ACA61140.1_349-547	FSASSVYGIQSGDTKTSVLTFDASAYGYVSKYEMVIQGHGVIMKKVTVRA
CBM65_2YPJ	-PYYVVDGTAVFTKEQIAKAYGSDDFSGLDYIAVKPLPSEEGVT-----
CBM4_1GUI	INVKILQNHDPWTNYFAQTVNL TADWQTFFTYTHPDDADEVVQISFELG
CBM6_5FUI	-----WQNWTTVSQTVNVSAGTYQFGLYSISGGWNINWIRITK-----
CBM6_1W9T	-----WQQWQTVTGNVQIQPGTYDVYLVFKGSPEYDL MNVNWVFVRANG
CBM22_1DYO	VDGSGTQRYDTIDMKTGVPNQVHLYNPQYRIPSDATDMYVYVETADDTI
CBM85_MH727997_18-180	VEKRDRPWTKSLERTVTGVRWQRFLLPCTCREDYGPGLYLAFGTGQVP
CBM76_CAC83072.1_530-701	PLGSKSSATVKFDGIFTKETGEGADKVKEDLEATVAEGKVELQKWWDASE
CBM78_4V17	AEIIGTETQEVTDADTIKKLTDKIKTEKSALLQVWYASDKTGKQIDPADS
VvGH17_451-615	DV-TSLIYFSGTADIDGGVVEVRNVVFNK-----
CBM79_WP_009984389.1_495-622	-----IDSVVLKT-----
CBM79_WP_009984389.1_663-790	-----IDSVVLKT-----
CBM72_ACA61140.1_349-547	PSGTS AIPLIKADYPDNTIIYNLNGQRVETPRKGIYIQNGKKYIAQ
CBM65_2YPJ	-----VTKVSGIYTNGGSED-----
CBM4_1GUI	-----EGTATTIYFDDVTVSPQ-----
CBM6_5FUI	-----
CBM6_1W9T	-----
CBM22_1DYO	N-----FYIDEAIGAVAGTVI-----
CBM85_MH727997_18-180	-----QVIEIGGIRLISYDKR-----
CBM76_CAC83072.1_530-701	KSEESSEDKIEVKYSSIQVVYEYAQGEAPKV-----
CBM78_4V17	-----ASESIEVYIPASADEALE-----