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Recombinant Enzyme Product Specification Sheet

Cat. No.:	PRO-E0038
LOT:	2008-0038
Activity:	CtCBM11
Synonyms:	Carbohydrate binding module; carbohydrate binding domain
Nomenclature:	CtCBM11 is a family 11 β-1,4 and β-1,3-1,4-glucan-binding domain
Source organism:	*Clostridium thermocellum*
Enzyme Commission No.:	**-**
Activity:	See comments below
Specific activity:	
Purity:	>95% as judged by SDS-PAGE
Form and storage:	Supplied in 3.2 M ammonium sulphate, store at 4°C (shipped at room temperature)
pH optimum:	-
Temperature optimum:	**-**
[Protein]:	0.5 mg/mL
Sequence length:	168 amino acids (view sequence)
Accession No.	AAA23225
Molecular weight:	19609.8 Da (theoretical)
	- (observed by SDS-PAGE)
	- (observed by mass spectrometry)
Biological function:	Binds to β-1,4 and β-1,3-1,4-glucans
Potential application(s):	Carbohydrate research
Comments:	CtCBM11 binds to lichenan (Ka 30.1 × 10^4 M^{-1}), β-glucan (Ka 27.1 × 10^4 M^{-1}), cellohexaose (Ka 7.8 × 10^4 M^{-1}), cellopentaose (Ka 5.9 × 10^4 M^{-1}), cellotetraose (Ka 4.4 × 10^4 M^{-1}), and a glucotetraoligosaccharide G4G4G3C (Ka 19.2 × 10^4 M^{-1})
Usage:	Agitate bottle sufficiently to fully homogenise enzyme precipitate before use
Assay:	To recover maximal CtCBM11 activity, centrifuge a required volume of the precipitated protein suspension provided (13000 xg for 2 min),

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remove the supernatant and ressuspend the resulting pellet in the same volume of 20 mM Tris-HCl, pH 7.5, 20 mM NaCl, 5 mM CaCl2. Proceed with the assay as required

Primary sequence:

MAVGEKMLDDFEGVLNWGSYSGEGAKVSTKIVSGKTGNGMEVSYTGTTDGYWGTVYSLPDGDWSKWLK
ISFDIKSVDGSANEIRFMIAEKSINGVGDGEHWVYSITPDSSWKTIEIPFSSFRRRLDYQPPGQDMSG
TLDLDNIDSIHFMYANNKSGKFVVDNIKLIGA

Literature:

1. Carvalho *et al*. (2004) *J. Biol. Chem.* **279**, 34785-34793