

Recombinant Enzyme Product Specification Sheet

Cat. No.:	PRO-E0040
LOT:	2008-0040
Activity:	CtCBM3
Synonyms:	Carbohydrate binding module; carbohydrate binding domain
Nomenclature:	CtCBM3 is a family 3 β -1,4-glucan-binding module
Source organism:	<i>Clostridium thermocellum</i> ATCC 27405
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]:	3 mg/mL
Sequence length:	198 amino acids (view sequence)
Accession No.	CAA47840
Molecular weight:	22503.5 Da (theoretical)
	22700 Da (observed by SDS-PAGE)
	- (observed by mass spectrometry)
Biological function:	Binds to β -1,4-glucans
Potential application(s):	Carbohydrate research
Comments:	CtCBM3 binds to crystalline cellulose ($K_a 7.7 \times 10^6 \text{ M}^{-1}$). PDB: 1nbc
Usage:	Agitate bottle sufficiently to fully homogenise enzyme precipitate before use
Assay:	To recover maximal CtCBM3 activity, centrifuge a required volume of the precipitated protein suspension provided (13000 \times g for 2 min), remove the supernatant and resuspend 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:

MTPTKGATPTNTATPTKSATATPTRPSVPTNTPTNTPANTPVSGNLKVEFYNSNPSDTTNSINPQFKV
TNTGSSAIDLKLTLLRYYTVDGQKDQTFWCDHAAIIGSNGSYNGITSNVKGTFVKMSSSTNNADTYL
EISFTGGTLEPGAHVQIQGRFAKNDWSNYTQSDYSFKSASQFVEWDQVTAYLNGVVLVWGKE

Literature:

1. Lehtio *et al.* (2003) *Proc. Natl. Acad. Sci. USA* **100**, 484-489