

## Recombinant Enzyme Product Specification Sheet

<b>Cat. No.:</b>	PRO-E0046
<b>LOT:</b>	2008-0046
<b>Activity:</b>	CtCBM6
<b>Synonyms:</b>	-
<b>Nomenclature:</b>	CtCBM6 is a family 6 xylan-binding module
<b>Source organism:</b>	<i>Clostridium thermocellum</i> F1/YS
<b>Enzyme Commission No.:</b>	-
<b>Activity:</b>	} See comments below
<b>Specific activity:</b>	
<b>Purity:</b>	>95% as judged by SDS-PAGE
<b>Form and storage:</b>	Supplied in 3.2 M ammonium sulphate, store at 4°C (shipped at room temperature)
<b>pH optimum:</b>	-
<b>Temperature optimum:</b>	-
<b>[Protein]:</b>	0.3 mg/mL
<b>Sequence length:</b>	130 amino acids ( <a href="#">view sequence</a> )
<b>Accession No.</b>	<a href="#">AAC04579</a>
<b>Molecular weight:</b>	14855.2 Da (theoretical)
	- (observed by SDS-PAGE)
	- (observed by mass spectrometry)
<b>Biological function:</b>	Binds to xylan
<b>Potential application(s):</b>	<a href="#">Carbohydrate research</a>
<b>Comments:</b>	CtCBM6 binds to both decorated (wheat arabinoxylan $K_a$ $42.6 \times 10^{-3} \text{ M}^{-1}$ and rye arabinoxylan $K_a$ $70.5 \times 10^{-3} \text{ M}^{-1}$ ) and less decorated (oat spelt xylan $K_a$ $58.7 \times 10^{-3} \text{ M}^{-1}$ and birchwood xylan $K_a$ $102 \times 10^{-3} \text{ M}^{-1}$ )
<b>Usage:</b>	Agitate bottle sufficiently to fully homogenise enzyme precipitate before use

**Assay:**

To recover maximal CtCBM6 activity, centrifuge a required volume of the precipitated protein suspension provided (13000 xg 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 CaCl<sub>2</sub>. Proceed with the assay as required

**Primary sequence:**

MKIESEEEYNSLKSSTIQTIGTSDGGSGIGYIESGDYLVFNKINFGNGANSFKARVASGADTPTNIQLR  
LGSPGTTLIGTLTVASTGGWNNYEEKSCSITNTTGQHDLYLVFSGPVNIDYFIFDSNGVNPT

**Literature:**

1. Czjzek *et al.* (2001) *J. Biol. Chem.* **276**, 48580-48587