

Recombinant Enzyme Product Specification Sheet

Cat. No.:	PRO-E0028	
LOT:	2008-0028	
Activity:	Xylanase	
Synonyms:	Endo-1,4- β -xylanase; endo-(1 \rightarrow 4)- β -xylan 4-xylanohydrolase; endo-1,4-xylanase; β -1,4-xylanase; endo-1,4-xylanase; endo- β -1,4-xylanase; endo-1,4- β -D-xylanase; 1,4- β -xylan xylanohydrolase; β -xylanase; β -1,4-xylan xylanohydrolase; β -D-xylanase	
Nomenclature:	Xylanase 10C belongs to GH family 10 (member of clan GH-A)	
Source organism:	<i>Cellvibrio mixtus</i> ATCC 12120	
Enzyme Commission No.:	3.2.1.8	
Activity:	1350 U/mL	} (37°C; pH 7.5; soluble wheat arabinoxylan)
Specific activity:	900 U/mg	
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:	7.5 (stable from 7 - 8)	
Temperature optimum:	37°C (stable up to 40°C)	
[Protein]:	1.5 mg/mL	
Sequence length:	370 amino acids (view sequence)	
Accession No.	AAD09439	
Molecular weight:	42925.9 Da	(theoretical)
	~ 43100 Da	(observed by SDS-PAGE)
	-	(observed by mass spectrometry)
Biological function:	Endohydrolysis of (1 \rightarrow 4)- β -D-xylosidic linkages in xylans	
Potential application(s):	Biomass conversion , carbohydrate research	
Comments:	PDB: 1uqy	
Usage:	Agitate bottle sufficiently to fully homogenise enzyme precipitate before use	

Assay:

One unit is defined as the amount of enzyme required to release 1 μmol of xylose-reducing-sugar equivalents per minute from wheat arabinoxylan in 50 mM Tris-HCl, pH 7.5, 5 mM CaCl_2 , at 37°C, where reducing sugars are measured by the method of Miller (1959; *Anal. Chem.* **31**, 426-428)

Primary sequence:

MLTSAGIAMGQASKLAAATKAAEQTGLKSAYKDNFLIGAAALNATIASGADERLNTLIAKEFNSTIPEN
CMKWGVLRLDAQGQWNWKDADAFVAFGTKHNLHMVGHTLVWHSQIHDEVFKNADGSYISKAAALQKKMEE
HITTLAGRYKGLAAWDVVNEAVGDDLKMRDSHWYKIMGDDFIYNAFTLANEVDPKAHLMYNDYNIER
TGKREATVEMIERLQKRGMPIHGLGIQGHGIDTPPIAEIEKSI IAFAKLGLRVHFTELDVDVLPVSW
ELPVAEVSTRFEYKPERDPYTKGLPQEMQDKLAKRYEDLFKLFIKHSDKIDRATFWGVSDDASWLNGF
PIPGRTNYPLLFDRKLPKDAYFRLLDLKR

Literature:

1. [Fontes et al. \(2000\) *Microbiol.* **146**, 1959-1967](#)
2. [Pell et al. \(2004\) *J. Biol. Chem.* **279**, 9597-9605](#)