

## Recombinant Enzyme Product Specification Sheet

<b>Cat. No.:</b>	PRO-E0234	<a href="#">add this product to cart</a>
<b>LOT:</b>	2009-0234	<a href="#">view other <math>\beta</math>-xylosidases</a>
<b>Activity:</b>	$\beta$ -Xylosidase	
<b>Synonyms:</b>	Xylan 1,4- $\beta$ -xylosidase; xylobiase; exo-1,4- $\beta$ -xylosidase; $\beta$ -D-xylopyranosidase; exo-1,4-xylosidase; exo-1,4- $\beta$ -D-xylosidase; 1,4- $\beta$ -D-xylan xylohydrolase; 4- $\beta$ -D-xylan xylohydrolase; xylan 1,4-beta-xylosidase; exo-1,4-beta-xylosidase; beta-D-xylopyranosidase; exo-1,4-beta-D-xylosidase; 1,4-beta-D-xylan xylohydrolase; 4-beta-D-xylan xylohydrolase	
<b>Nomenclature:</b>	CAZy [GH43, <a href="#">glycoside hydrolase family 43</a> , member of <a href="#">clan GH-F</a> ], xynB	
<b>Source organism:</b>	<i>Bacillus subtilis</i> subsp. <i>subtilis</i> str. 168	
<b>Enzyme Commission No.:</b>	<a href="#">3.2.1.37</a>	
<b>Activity:</b>	77.61 U/mL	} (35°C; pH 7.0; 5 mM oNP- $\beta$ -D-xylopyranoside)
<b>Specific activity:</b>	20.67 U/mg	
<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>	7.0	
<b>Temperature optimum:</b>	> 35°C	
<b>[Protein]:</b>	3.755 mg/mL	
<b>Sequence length:</b>	533 amino acids ( <a href="#">view sequence</a> )	
<b>Accession No.:</b>	<a href="#">P94489</a> , <a href="#">NP_389640</a> , <a href="#">BSUB224308:BSU1759-MON</a> , <a href="#">AAB41091</a>	
<b>Molecular weight:</b>	64909.6 Da	(theoretical)
	~ 65000 Da	(observed by SDS-PAGE)
	-	(observed by mass spectrometry)
<b>Biological function:</b>	Catalyses the hydrolysis of (1→4)- $\beta$ -D-xylans, to remove successive D-xylose residues from the non-reducing termini	
<b>Potential application(s):</b>	<a href="#">Biomass conversion</a> , <a href="#">carbohydrate research</a>	
<b>Comments:</b>	PDB: <a href="#">1YIF</a> . This enzyme also hydrolyses xylobiose and xylooligosaccharides	

**Usage:** Agitate vial sufficiently to fully homogenise enzyme precipitate before use

**Assay:** One unit is defined as the amount of enzyme required to release 1  $\mu\text{mol}$  of oNP per minute from oNP- $\beta$ -D-xylopyranoside (5 mM) in 50 mM sodium phosphate buffer, pH 7.0, containing 1 mg/mL BSA, at 35°C, and using an extinction coefficient of 18000  $\text{M}^{-1} \text{cm}^{-1}$

**Primary sequence:**

MKITNPVLKGFNPDP SICRAGEDYYIAVSTFEWFPGVQIHHSKDLVNWHLVAHPLQRVSQ LDMKGNPNSSGGVWAP  
CLSYSDGKFWLIYTDVKVVDGAWKDCHNYLVTCETINGDWSEPIKLNSSGFDASLFHDTDGKKYLLNMLWDHRID  
RHSFGGIVIQEYSDKEQKLI GKPKVIFEGTDRKLTEAPHL YHIGNYYYYLLTAE GGTREYEAATIARSANIEGPYE  
VHPDNPILTSWHD PGNPLQKCGHASIVQTH TDEWYLAHLTGRPIHPDDDSIFQQRGYCPLGRETAIQKLYWKDEW  
PYVVGKKEGSLEVDAPSIPETIFEATYPEVDEFEDSTLNINFQTLRIPFTNELGSLTQAPNHLR LFGHESLTSTF  
TQAFVARRWQSLHF EAETAVEFYFENFQQAAGLVNYYNTENWTALQVTHDEELGRILELTICDNFSFSQPLN NKI  
VIPREVKYVYLRVNIEKDKYYYYFYSFNKEDWHKIDIALESK KLSDDYIRGGGFFTGA FVGMQCQDTSGNHIPADF  
RYFRYKEK

**Literature:** 1. Roncero, M. I. G. (1983) *J. Bacteriol.* **156**, 257-263