

## Recombinant Enzyme Product Specification Sheet

<b>Cat. No.:</b>	PRO-E0426
<b>LOT:</b>	2009-0426
<b>Activity:</b>	Oligo-1,6-glucosidase
<b>Synonyms:</b>	Oligosaccharide $\alpha$ -1,6-glucohydrolase; limit dextrinase (erroneous); isomaltase; sucrase-isomaltase; exo-oligo-1,6-glucosidase; dextrin 6 $\alpha$ -glucanohydrolase; $\alpha$ -limit dextrinase; dextrin 6-glucanohydrolase
<b>Nomenclature:</b>	CAZy [GH13 subf31, <a href="#">glycoside hydrolase family 13</a> subfamily 31, member of <a href="#">clan GH-H</a> ], DexB, SPy_1973
<b>Source organism:</b>	<i>Streptococcus pyogenes</i> M1 GAS SF370
<b>Enzyme Commission No.:</b>	<a href="#">3.2.1.10</a>
<b>Activity:</b>	-
<b>Specific activity:</b>	-
<b>Purity:</b>	-
<b>Form and Storage:</b>	-
<b>pH optimum:</b>	-
<b>Temperature optimum:</b>	-
<b>[Protein]:</b>	-
<b>Sequence length:</b>	537 amino acids ( <a href="#">view sequence</a> )
<b>Accession No.:</b>	<a href="#">Q99XX7</a> , <a href="#">NP_269941.1</a> , <a href="#">SPYO160490:SPY1973-MON</a>
<b>Molecular weight:</b>	65304.3 Da (theoretical)
	- (observed by SDS-PAGE)
	- (observed by mass spectrometry)
<b>Biological function:</b>	Hydrolysis of terminal, non-reducing (1 $\rightarrow$ 4)-linked $\alpha$ -D-glucose residues with release of $\alpha$ -D-glucose
<b>Potential application(s):</b>	<a href="#">Carbohydrate research</a> , <a href="#">fundamental research</a>
<b>Comments:</b>	This enzyme, like <a href="#">EC 3.2.1.33</a> (amylase), can release an $\alpha$ -1 $\rightarrow$ 6-linked glucose, whereas the shortest chain that can be released by <a href="#">EC 3.2.1.41</a> (pullulanase), <a href="#">EC 3.2.1.142</a> (limit dextrinase), and <a href="#">EC 3.2.1.68</a> (isoamylase) is maltose. It also hydrolyses isomaltulose (palatinose), isomaltotriose and panose, but has no action on glycogen or phosphorylase limit dextrin

**NOTE:** this product is currently under development. If you wish to prioritise the production of this enzyme/protein, please follow [this link](#)

**Usage:** -

**Assay:** -

**Primary sequence:**

MNNHWWHKATIIYQIYPRSFKDTSGNGIGDLKGITSQLDYLQKLGITAIWLSVPVYQSPMDDNGYDISDYEAADVF  
GDMADMDELLAAANERGIKIIMDLVVNHTSDEHAWFVEARENPNSPERDYYIWRDEPNLMSIFSGSAWELDEAS  
GQYYLHLFSKKQPDNLWENAQLRQKIYDMMNFWIAKGI GGF RMDVIDLIGKVPDLEITGNGPRLHDYLKEMNQAT  
FGNHDMVTVGETWGATPEIARQYSRPNKELSMVFQFEHVGLQHKPDAPKWDYAKELDVPALKAI FSKWQTELKL  
GEGWNSLFWNNHDLPRVLSIWGNDSTYREKSAKALAILLHLMRGTPYIYQGEEIGMTNYPFKDLTEVNDIESLNY  
AKEAMGNGVSAARVMSIRKVGRDNARTPMQWSKDT HAGFSEAKETWLPVNP NYQDINVADALADPDSIFYTYQK  
LIALRKEQDWLVEADYHLLPTADKVFAYQRQLGEETYVIVVNVSDDEEQVFATDLAGAQVIIANTDVDTVLETKHL  
QPWDAFCLKLKA

**Literature:** 1. [Ferretti \*et al.\* \(2001\) \*PNAS\* 98, 4658-4663](#)