

## Recombinant Enzyme Product Specification Sheet

<b>Cat. No.:</b>	PRO-E0424
<b>LOT:</b>	2009-0424
<b>Activity:</b>	Malto-oligosyltrehalose synthase
<b>Synonyms:</b>	(1→4)-α-D-Glucan 1-α-D-glucosylmutase; maltodextrin α-D-glucosyltransferase, maltooligosyl trehalose synthase
<b>Nomenclature:</b>	CAZy [GH13 subf26, <a href="#">glycoside hydrolase family 13</a> subfamily 26, member of <a href="#">clan GH-H</a> ], TreY, SCO6081, SCBAC1A6.05c
<b>Source organism:</b>	<i>Streptomyces coelicolor</i> A3(2)
<b>Enzyme Commission No.:</b>	<a href="#">5.4.99.15</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>	805 amino acids ( <a href="#">view sequence</a> )
<b>Accession No.:</b>	<a href="#">Q9ADI2</a> , <a href="#">NP_630189.1</a> , <a href="#">SCOE100226:SCO6081-MON</a>
<b>Molecular weight:</b>	91024.4 Da (theoretical)
	- (observed by SDS-PAGE)
	- (observed by mass spectrometry)
<b>Biological function:</b>	Likely to catalyse the following reaction: 4-[(1→4)-α-D-glucosyl] <sub>n-1</sub> -D-glucose = 1-α-D-[(1→4)-α-D-glucosyl] <sub>n-1</sub> -α-D-glucopyranoside
<b>Potential application(s):</b>	<a href="#">Carbohydrate research</a> , <a href="#">fundamental research</a>
<b>Comments:</b>	Acts on (1->4)-α-D-glucans containing three or more (1->4)-α-linked D-glucose units. Not active toward maltose

**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:**

MTPERPSPVSPASVPSATYRLQLQPSFPPFKAAAAAVPYLASLGVSHLHLSPVLEAVPGSLHGYDVVDHARVRAEL  
GGEEGLRALSRRTAREHGLGLVVDIVPNHMAMSPRHNLWEVLRGPPSPYARWFIDWQAQDGRLLLPVLGAPL  
GEVLDDLVDGDVLRVYHEHAFPLRDGTADLPLPRLLDQWYRPVWRLARTELNRYRFFSISELIGVRVEDPEVF  
EATHGTVLRLLEHGVIDGLRVDHPDGLADPDAYLERLHRASGGRWTVVEKILADGERLPAAWPVAGTTGYDALRH  
VDGLFTDPAGYGQLLDYRFFAAPQADLGGDWAAVTRRAAYEVLTHELATELDRLTRVAHRLCAAAPDPALRDRA  
PWALRTALVELLVRLEVYRYPYTSVDAAAVVTEEAAGARHAFTVPEEAGAVDVVRGLVLRGYPDGPDPHVEFTRF  
AQTASALRAKSVEDTAFYRYVPLLSATEVGGDPGRPAVSPQEFHAYCARVQRDWPATGTVVSTHDTKRSADVRAA  
LAVLTQCPARWADVLTEAAGATGTDEGPPDGLAWAAWQTVFGLGPADREVRREALLKHVREAGTHTTWTEQDPS  
YEEAVARFVAAGPGGAPGARVTALREALAPHIRANVLGTALVHLTMPGVDPDLYQGTEHEYLALVDPDNRRRAVDFFP  
AAGDEGWAWGPGAKAAVTRAALALRARRPGVFGDTGTYEPLPAEGPAAAHCVAFARSGRTVTAVTRLSLRLAEAG  
GWRGTTLPLPPGRWADALAPGREFAGDARVADLFADTFVALLERVEEAGTRWNGG

**Literature:** 1. [Bentley \*et al.\* \(2002\) \*Nature\* 417, 141-147](#)