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[full product listing at www.prozomix.com/products/listing]

Recombinant Enzyme Product Specification Sheet

Cat. No.:	PRO-E0415
LOT:	2009-0415
Activity:	Cyclomaltodextrin glucanotransferase
Synonyms:	*Bacillus macerans* amylase; cyclodextrin glucanotransferase; cyclodextrin glycosyltransferase
Nomenclature:	CAZy [GH13 subf2, glycoside hydrolase family 13 subfamily 2, member of clan GH-H]
Source organism:	*Streptococcus pyogenes* M1 GAS SF370
Enzyme Commission No.:	2.4.1.19
Activity:	-
Specific activity:	-
Purity:	-
Form and Storage:	-
pH optimum:	-
Temperature optimum:	-
[Protein]:	-

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

Sequence length:	711 amino acids (view sequence)	
Accession No.:	AAK34149	
Molecular weight:	83365.1 Da	(theoretical)
	-	(observed by SDS-PAGE)
	-	(observed by mass spectrometry)
Biological function:	Cyclizes part of a (1->4)-α-D-glucan chain by formation of a (1->4)-α-D-glucosidic bond	
Potential application(s):	Fundamental research	
Comments:	Cyclomaltodextrins (Schardinger dextrins) of various sizes (6, 7, 8, etc. glucose units) are formed reversibly from starch and similar substrates. Also disproportionates linear maltodextrins without cyclizing (cf. EC 2.4.1.25)	
Usage:	-	

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Assay: -

Primary sequence:

MRELHIKTYKLLTKSAVLLGLISFPLTVSAADNASVTNKADFSTDTIYQIVTDRFNDGNTSNNGKTDVFDKNDLK
KYHGGDWQGIIAKIKDGYLTDMGISAIWISSPVENIDSIDPSNGSAAYHGYWAKDFFKTNQHFGTEADFQQLVKV
AHQHHIKVVIDFAPNHTSTAEKEGTTFKEDGALYKNGKLVGKFSDDKDKIFNHESWTDFSTYENSIYHSMYGLAD
LNNINPKVDQYMKEAIDKWLDLGVDGIRVDAVKHMSQGWQKNWLSHIYEKHNVFVFGEWFSGHTDDDYDMTTFAN
NSGMGLLDFRFANAIRQLYTGFSTFTMRDFYKVLENRDQVTNEVTDQVTFIDNHDMERFATKVANNQTAVNQAYA
LLLTSRGVPNIYYGTEQYATGDKDPNNRGDMPSFNKESQAYKVISKLAPLRKQNQALAYGTTEQRWISDHVLVFE
RKFGNHVALVAINRDQTNGYTITNAKTALPQNSYKDKLEGLLGGQELIVGADGTISSFELGAGQVAVWTYEGEDK
TPQLGDVDASVGIAGNKITISGQGFGNSKGQVTFGEISAEILSWSDTLITLKVPTVPANYYNISVTTADKQTSNS
YQAFEVLTDKQIPVRLLINDFKTVPGEQLYLMGDVFEMGANDAKNAVGPLFNNTQTIAKYPNWFFDTHLPINKEI
AVKLVKKDSIGNVLWTSPETYSIKTGHEAQTITIKK

Literature: 1. Ferretti *et al.* (2001) *Proc. Natl. Acad. Sci. U.S.A.* **98**, 4658-4663