

## Recombinant Enzyme Product Specification Sheet

<b>Cat. No.:</b>	PRO-E0423
<b>LOT:</b>	2009-0423
<b>Activity:</b>	$\alpha$ -Glucosidase
<b>Synonyms:</b>	Acid maltase; glucoinvertase; glucosidosucrase; lysosomal alpha-glucosidase; maltase; maltase-glucoamylase
<b>Nomenclature:</b>	CAZy [GH13 subf23, <a href="#">glycoside hydrolase family 13</a> subfamily 23, member of <a href="#">clan GH-H</a> ], CC_2285
<b>Source organism:</b>	<i>Caulobacter crescentus</i> CB15
<b>Enzyme Commission No.:</b>	<a href="#">3.2.1.20</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>	526 amino acids ( <a href="#">view sequence</a> )
<b>Accession No.:</b>	<a href="#">Q9A610</a> , <a href="#">NP_421088.1</a>
<b>Molecular weight:</b>	61804.4 Da (theoretical)
	- (observed by SDS-PAGE)
	- (observed by mass spectrometry)
<b>Biological function:</b>	Hydrolysis of terminal, non-reducing (1->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>	Group of enzymes whose specificity is directed mainly toward the exohydrolysis of 1,4- $\alpha$ -glucosidic linkages, and that hydrolyse oligosaccharides rapidly, relative to polysaccharides, which are hydrolysed relatively slowly, or not at all

**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:**

MNAEWWRGAVIYQVYPRSFADSNVGDVGLPGITAHLDHIASLVGVEGVWLSPPFFTSMPKDFGYDVSNYCDVDPIFG  
GTLADFDALIAARAHALGLKIIIDLVSHTSDEHPWFVFSRQDRSNAKADWFWADAKPDGSPPSNWQSVFGGPAW  
TWDARRGQYYMHNFSSQPQLNLHNPVQEQALLAVTQFWIDKGVDFRFDAINFSMHPALTDNPPLPPGGKRTR  
PFDQDKIHNQSHADIPKFLSRLRALTDAAAGGRFSVAEVGGDHAEREMKLFRTAGEDRLNSAYGFLYLYADKLI  
MIPQGAAMWPGAGEGWPSWTFNSHDAPRAVSRWAEGRDRKAFELCLLLMGLRGNVVFVYQGEELGLPQAHVPF  
ERLQDPEAIANWPQTLGRDGARTPMPWVSGALNAGFSGVEPWLVDPEHLPLAVDAQEADPASTLNVARRLIGLR  
RAYPALRTGAITFIDTNSPLLI FQRGEGADAVLLAFNLGFETVTVWSLDPGWTLIDGVNLGGEGQMPVCAGLIARR  
G

**Literature:** 1. [Nieman \*et al.\* \(2001\) \*PNAS\* 98, 4136-4141](#)