

Recombinant Enzyme Product Specification Sheet

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| Cat. No.: | PRO-E0063 |
| LOT: | 2010-0063 |
| Activity: | α -Galactosidase |
| Synonyms: | Melibiose; α -D-galactosidase; α -galactosidase A; α -galactoside galactohydrolase; α -D-galactoside galactohydrolase; alpha-galactosidase; alpha-D-galactosidase; alpha-galactosidase A; alpha-galactoside galactohydrolase; alpha-D-galactoside galactohydrolase |
| Nomenclature: | CAZy [GH27, glycoside hydrolase family 27 , member of clan GH-D], Gal27A, gal27A, Ccel_1237 |
| Source organism: | <i>Clostridium cellulolyticum</i> H10 |
| Enzyme Commission No.: | 3.2.1.22 |
| Activity: | 561.85 U/mL |
| Specific activity: | 186.66 U/mg |
| | } (40°C; pH 6.0; 1 mM pNP- α -D-galactopyranoside) |
| Purity: | > 95 % as judged by SDS-PAGE |
| Form and storage: | Supplied in 3.2 M ammonium sulphate, store at 4°C (shipped at room temperature) |
| pH optimum: | 6.0 |
| Temperature optimum: | - |
| [Protein]: | 3.01 mg/mL |
| Sequence length: | 577 amino acids (view sequence) |
| Accession No.: | Q0PRN2 , DQ778333 , ACL75593.1 , ABG76969.1 |
| Molecular weight: | 64179.5 Da (theoretical) ~ 65000 Da (observed by SDS-PAGE) - (observed by mass spectrometry) |
| Biological function: | Hydrolysis of terminal, non-reducing α -D-galactose residues in α -D-galactosides, including galactose oligosaccharides and galactomannans |
| Potential application(s): | Biomass conversion , carbohydrate research |
| Comments: | No detectable activity against pNP- β -D-glucopyranoside or pNP- β -D-xylopyranoside. This enzyme exhibits strong inhibition by Tris/HCl buffer |

Usage: Agitate bottle sufficiently to fully homogenise enzyme precipitate before use

Assay: One unit is defined as the amount of enzyme required to release 1 μmol of *p*NP per minute from *p*NP- α -D-galactopyranoside (1 mM) in 50 mM sodium phosphate buffer, pH 6.0, at 40°C, and using an extinction coefficient of 18000 $\text{M}^{-1} \text{cm}^{-1}$

Primary sequence:

WDNGLAKTPPMGWNSWNI FHGDINETKIKQIADTMVSSGMKEAGYVYLNLDNWMANPARDSNGNLRADPTRFPS
GIRALADYVHAKGLKLG IYGCRGTMTCMNI PQSGSKGYEDKDAKTFASWGIDYLYKYNDCNIPNGSDMKTDYQKMQ
TALANCGRP I VFSICAWGYQSWMPATGNLWRTTGDIADKWDNGNEWFKGI INAIDGNAQYTSSAAPGAWNDPDML
EIGNGGCTTEEYRTQMSMWSMMASPLIAGNDIRTMSQTTKDILLNKEVIAIDQDPAGVQGKRVKSANGLEIWWKP
LGTNGTTKAVALLNRNSATSNI TVNWSDIGVSGSVTVRDLWAKSDKGSFTGSYTASVPSHGTVLIKISTEPPAPV
DATKQIEAESYSNQSGIQ TETCSEGGEDVGFIE NGDYTVYSNVDFGDGVGGFQARVASATSGGNIEIRLDS PAGT
LIGTCPVAGTGDWQTYT DVKCTVSGATGKHDVYLVFKGDSGYLFNLNWF TFTP GSVNTGTLDLNSDGQVDAIDL
QLLKKYILGLGAIENTKLADLDANGDINAIDFSLKQFLLGIRTSFPGQGA

Literature: 1. [Blouzard et al. \(2007\) J. Bacteriol. 189, 2300-2309](#)