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ProductInformation

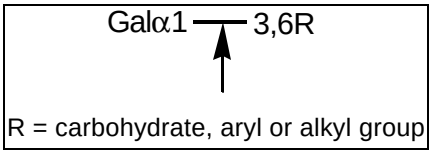
α-1® (3,6)-Galactosidase, Positionally specific, from *E. coli*, recombinant overexpressed in *E. coli*

Product Number **G7163**
Storage Temperature 2–8 °C

CAS# 9025-35-8
EC 3.2.1.22
Synonyms: Melibiase; α-D-Galactopyranosidase; α-D-Galactoside galactohydrolase

Product Description
One of the distinguishing features of the proteome in eurkaryotic cells is that most proteins are subject to post-translational modification, of which glycosylation is the most common form. It is estimated that more than half of all proteins are glycoproteins. Two major classes of oligosaccharides (glycans) may be attached to proteins. N-linked glycans are attached to the amide side chain of Asn residues, which form part of the consensus sequence AsnXaaSer/Thr, while O-linked glycans may be added to the hydroxyl side chain of Ser or Thr residues. The terminal residues on the glycan chains are commonly sialic acids, which can be removed by the use of a broad spectrum neuraminidase enzyme. After removal of sialic acids, the galactose residues are exposed. The galactose residues may be linked to the core glycan in several different positions, and in both in α and β-orientations.

This product is a highly purified enzyme, which cleaves α-1→3 and α-1→6 linked non-reducing terminal galactose residues from carbohydrates and glycoproteins. It is particularly efficient in removing α-linked galactose under conditions where the pH must be neutral or above, for example, with live cells. The enzyme has a molecular weight of ~80 kDa.



Due to its limited specificity, the enzyme is an extremely useful reagent for detailed structural analysis of glycans in conjunction with other positionally specific galactosidase enzymes.

Components
α-1→(3,6)-Galactosidase (Product No. G 7163) – The enzyme is supplied in 50 mM sodium phosphate, pH 7.5.

Unit Definition: One unit will hydrolyze 1 µmole of p-nitrophenyl α-D-galactopyranoside per minute at pH 6.5 at 25 °C.

α-1→(3,6)-Galactosidase is tested and confirmed negative for contaminating activities of other endo- and exo-glycosidases. Protease activity was also not detected.

5X Reaction Buffer (Product No. G 5543) – 250 mM sodium phosphate, pH 6.5

Precautions and Disclaimer
This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability
It is recommended to store the product at 2–8 °C.
Do Not Freeze

Procedure
Add 2 µl of enzyme to 100 µg of asialoglycoprotein or 1 nmole of desialylated oligosaccharide. Add 50 mM sodium phosphate buffer, pH 6.5, and incubate for 1 hour at 37 °C.

References
1. Schmidt, K., *et al.*, Eur. J. Biochem., **67**, 95-104 (1976).

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