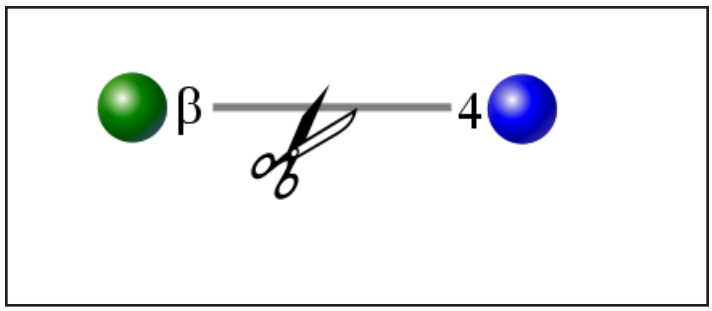

ß(1-4)-Galactosidase

Source
Recombinant from *Streptococcus pnuemonia* in *E.coli*

Catalog Number

E-BG07	60 µl
E-BG07-200	200 µl
E-BG07-20	20 µl

Recommended Reagents
included with E-BG07:
1 vial: Reaction buffer – 250mM Sodium phosphate, pH 6.0

Activity ≥ 3 U/ml
Specific Activity ≥ 6 U/mg

Molecular Weight ~350,000 dalton
pH optimum 6.0, active over the range 5-7.

The supplied buffer concentrate provides the optimal pH for enzyme activity with the standard substrate. If glycosidase treatment is performed at suboptimal pH because of glycoprotein solubility or activity requirements, expect some diminution in enzyme activity.

Formulation
The enzyme is provided as a sterile-filtered solution in 20 m*M* Tris-HCl, 25 m*M* NaCl (pH 7.5).

Specific Activity
One unit of ß-(1-4)-galactosidase is defined as the amount of enzyme required to produce 1 µmole of p-nitrophenol (pNP) in 1 minute at 37°C pH 5 from p-nitrophenyl-beta-D-galactopyranoside.

Specificity
Non-reducing terminal ß(1-4)-Galactose. Number of antennae does not affect cleavage rate. Fucose linked to the penultimate N-acetylglucosamine will block cleavage of the galactose.

Stability
Stable at least 12 months when stored properly. Several days exposure to ambient temperatures will not reduce activity.

Storage
Store enzyme at 4°C. Do not freeze.

Purity
ß(1-4)-Galactosidase is tested for contaminating protease as follows: 10 µg of denatured BSA is incubated at 37°C for 24 hours with 2 µl of enzyme. SDS-PAGE analysis of the treated BSA shows no evidence of degradation.

The production host strain has been extensively tested and does not produce any detectable glycosidases.

ß-(1-4)Galactosidase Specifications - Protocol

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Directions for use

1. Add up to 100 µg of asialoglycoprotein or 1 nmol of oligosaccharide to tube.

2. Add deionized water to a total of 14 µl.

3. Add 4 µl of 5x Reaction Buffer 6.0.

4. Add 2 µl ß(1-4) Galactosidase.

5. Incubate at 37°C for 1 hour.

For glycoproteins, cleavage may be monitored by SDS-PAGE if the size differential between native and de-galactosylated protein is sufficient for detection.

Note: The optimum pH for cleavage of oligosaccharides is ~6.

References:

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Prime, S. J. Dearnley, A.M. Venton, R.B. Parekh and C.J. Edge. Oligosaccharide sequencing based on exo- and endoglycosidase digestion and liquid chromatographic analysis of the products. **J Chromatogr A 720:** 263-274 (1996)

Dwek, R.A. , C.J. Edge, D.J. Harvey, M.R. Wormald and R.B. Parekh. Analysis of glycoprotein-associated oligosaccharides. **Ann Rev Biochem 62:** 65-100 (1993)

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This product is intended for *in vitro* research only.

revised on May 29, 2018