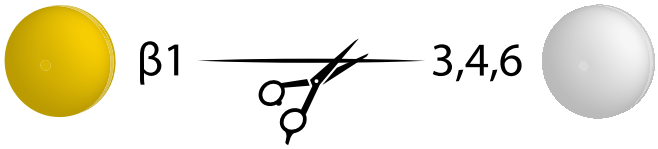

ß-(1-3,4,6)-Galactosidase

Source
Bovine testes

Catalog Number
E-BG02 60 µl

EC
3.2.1.23

Recommended Reagents
included with E-BG02:
400 µl 5x Reaction buffer – 500 mM sodium citrate/ phosphate pH 4

Activity ≥ 2.5 U/ml
Specific Activity ≥ 10.2 U/mg

Optimum pH 4
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.

Specific Activity
One unit of ß-(1-3,4,6)-Galactosidase is defined as the amount of enzyme required to produce 1 µmole of *p*-nitrophenol (*p*NP) in 1 minute at 37°C, pH 4.0 from p-nitrophenyl-ß-D-galactopyranoside.

Specificity
Cleaves all ß1-3 and ß1-4 linked non-reducing, terminal galactose. ß1-6 linked galactose is released at a slower rate.

Formulation
The enzyme is provided as a sterile-filtered solution in 20 mM Tris-HCl pH 7.5, 50 mM NaCl, 0.5 mg/ml BSA, pH 7.5.

Stability
Stable at least 24 months when stored properly. Several days exposure to ambient temperatures will not reduce activity.

Storage
Store enzyme at -20°C.

Purity
QA-Bio ß-(1-3,4,6)-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.

Each lot is also tested for contaminating activities by incubating the enzymes with the appropriate substrates for 24 hours; the detection limit is 5 µU/ml (IUB). A passing lot will have no detectable activity.

ß-(1-3,4,6)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 4.

4. Add 2 µl ß-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.

References

Guile GR, Rudd PM, Wing DR, Prime SB, Dwek RA. A rapid high-resolution high-performance liquid chromatographic method for separating glycan mixtures and analyzing oligosaccharide profiles. Anal Biochem. 1996 Sep 5;240(2):210-26. PMID: 8811911

Jacob GS, Scudder P. Glycosidases in structural analysis. Methods Enzymol. 1994;230:280-99. No abstract available. PMID: 8139502

Distler JJ, Jourdian GW. The purification and properties of beta-galactosidase from bovine testes. J Biol Chem. 1973 Oct 10;248(19):6772-80. PMID: 4270451

Warranties and liabilities

QA-Bio, Inc warrants that the above product conforms to the specifications described herein. Should the product fail for reasons other than through misuse QA-Bio will, at its option, replace free of charge or refund the purchase price. This warranty is exclusive and QA-Bio makes no other warrants, expressed or implied, including any implied conditions or warranties of merchantability or fitness for any particular purpose.
QA-Bio shall not be liable for any incidental, consequential or contingent damages.

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

revised on January 16, 2025