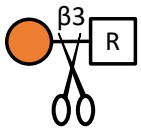
β1,3 Galactosidase contents

Catalog #	Description	Size	M. W.	Purity	pH Range	Storage
GE0901	β1,3 Galactosidase	2,000 units, lyophilized	71,681	> 95%	4.5-7.5	-20°C, up to 12 months
BA0501	10X Reaction Buffer 1	1 mL			7.5	4 to 25°C
BA0601	10X Reaction Buffer 2	1 mL			7.0	4 to 25°C

This product is for research use only and not for resale or for any use in the manufacture of a therapeutic or for any diagnostic purpose

Product description: This product is recombinant β1,3 galactosidase (glycosyl hydrolase family GH35, EC #3.2.1.23), cloned from *Streptococcus pneumoniae* and expressed in *Escherichia coli* with an *N*-terminal 8xHis tag. It catalyzes the hydrolysis of terminal β1,3-linked galactose (Gal) from oligosaccharides and glycoprotein substrates.



The *N*-terminal 8xHis tag may be removed by digestion with FasTEV™ (Cat #GE0501), a TEV protease with enhanced stability and catalytic activity.

This product does not contain any detectable activities of proteases or other glycosidases.

β1,3 Galactosidase is supplied with two 10X Reaction Buffers to ensure optimal digestion and ease of use. Reaction Buffer 1 (Cat #BA0501) is used for reactions that require higher than neutral pH buffering, and Reaction Buffer 2 (Cat #BA0601) is the optimal buffer for most digestions.

Unit definition: One unit is defined as the amount of β1,3 Galactosidase required to catalyze the release of 1 nmole *p*-nitrophenol (pNP) from *p*-nitrophenyl-β-D-galactopyranoside (pNP-Gal) in 10 min at 37°C in 100 µL 1X Reaction Buffer 1 (20 mM Tris-HCl, 50 mM NaCl, 1 mM EDTA, pH 7.5).

Activity assay: One unit of enzyme is added to 100 µL of 500 µM pNP-Gal in 1X Reaction Buffer 2 (50 mM Bis-Tris, 100 mM NaCl, pH 7.0) at 37°C for 30 min, followed by addition of 100 µL of a stop solution (0.2 M sodium borate, pH 9.8). Measure absorption at 405 nm on a plate reader.

Product reconstitution: Dissolve the lyophilized product in 100 µL molecular grade water to make a 20,000 units/mL (Cat #GE0901) solution in 1X Reaction Buffer 1. Once reconstituted, store at 4°C for up to 7 days or -20°C for up to 3 months. Aliquoting is recommended to avoid repeated freeze-thaw cycles.

Reference: Cheng W, et al. J Biol Chem. 2012 Jun 29;287(27):22910-8. PMID: 22593580.

Corporate Headquarters: Innovation Gateway, 111 Riverbend Rd, Athens, GA 30602, USA
Satellite Operations: San Diego Science Center, 3030 Bunker Hill St, San Diego, CA 92109, USA
Phone: +1 (706) 549-4484 E-mail: sales@lectenz.com Web: https://www.lectenz.com