

# Certificate of Analysis



**Product Name/Description:** Lacto-N-biosidase  
**Cat. #:** 4456  
**Lot #:** Specified on product label  
**Storage Conditions:** -20 degrees C  
**Expiration Date:** Specified on product label or package  
**Package Size:** 100 µU  
**Package Contents:** 1. Lacto-N-biosidase 1 µU/µl 100 µl  
**Product Documents:** Documents for Takara Bio products are available for download at [www.takara-bio.com](http://www.takara-bio.com)  
**Source:** Streptomyces sp. 142

**Unit Definition:** One unit of the enzyme is defined as the amount that produce 1 µmol of PA-lactose from PA-lacto-N-tetraose in a minute at 37°C (pH 5.5).

**Quality Control Data:**

Protease contamination test:

No protease activity was detected in this enzyme when 10 µl of this enzyme was incubated with 4 nmol of oxidized insulin B chain in 10 µl of 200 mM sodium acetate buffer (pH 5.5) for 16 hours at 37°C and analyzed by HPLC.

Endoglycosidase and exoglycosidase contamination test:

1) When exonuclease activities in this enzyme were assayed using 1.1 mM of each of several kinds of p-nitrophenyl glycosides as a substrate, the activities of β-galactosidase and α-mannosidase were not detectable, each of the activities of α-fucosidase, β-glucosidase, and β-mannosidase was lower than 0.005% of lacto-N-biosidase activity, the activity of α-galactosidase was lower than 0.02% of lacto-N-biosidase activity, the activity of β-N-acetylhexosaminidase was lower than 0.05% of lacto-N-biosidase activity.

2) When the activities of exoglycosidase and endoglycosidase in this enzyme were assayed using 2 µM of each of several kinds of PA-Sugar Chain as a substrate, each of the activities of α-galactosidase, β-galactosidase, α-glucosidase, β-N-acetylhexosaminidase, α-N-acetylgalactosaminidase, α-mannosidase, sialidase, and endo-β-N-acetylglucosaminidase was not detectable, the activity of α-fucosidase was lower than 0.01% of lacto-N-biosidase activity, the activity of β-glucosidase was lower than 0.15% of lacto-N-biosidase activity.

It is certified that this product meets above specifications.

Manager, Quality Assurance  
TAKARA BIO INC.

**Safety Information :**

Please refer to our website for safety information :

<http://www.takara-bio.com>

**Notice To Purchaser :**

This product is for research use only. It is not intended for use in therapeutic or diagnostic procedures for humans or animals.

Also, do not use this product as food, cosmetic, or household item, etc.

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