## Certificate of analysis

Product Name/Description:	α1,2-L-Fucosidase		
Cat. #:	4451		
Lot #:	Specified on product label		
Storage Conditions:	-20 degrees C		
Expiration Date:	Specified on product label or package		
Package Size:	2 U		
Package Contents:	1. α1,2-L-Fucosidase	20 U/ml	2 U
Source:	Corynebacterium sp.		
Unit Definition:	One unit of the enzyme is defined as the amount that releases 1 $\mu$ mol of p-nitrophenol from p-nitrophenyl $\alpha$ -L-fucoside in a minute at 37°C at pH 8.5.		
Quality Control Data:	Protease contamination test: No protease activity was detected in this enzyme when 2 mU of this enzyme was incubated with 4 nmol of oxidized insulin B chain in 0.15 ml of 100 mM Tris-HCl buffer (pH8.0) for 16 hours at 37°C and analyzed by HPLC.		
	Endoglycosidase contamination test: No endoglycosidase activity in this enzyme was detected when 50 mU of this enzyme was incubated with 100 pmol of pyridylamino oligomannose type sugar chain (M6-PA) in 10 µl of 100 mM sodium acetate buffer (pH5.0) for 16 hours at 37°C and analyzed by HPLC.		
	Exoglycosidase contamination test: When exonuclease activities in this enzyme were assayed using 500 nmol of each of several kinds of p-nitrophenyl glycosides as a substrate, the activities of $\alpha$ -galactosidase, $\beta$ -galactosidase, $\beta$ -N-acetylglucosaminidase, $\alpha$ -mannosidase, and $\beta$ -xylosidase were not detected.		
	$\alpha$ 1,3/4-L-Fucosidase contamination test: No $\alpha$ 1,3/4-L-fucosidase activity in this enzyme was detected w pmol of pyridylamino lacto-N-fucopentaose II or III in 10 µl of hours at 37°C and analyzed by HPLC.		2

It is certified that this product meets the above specifications, as reviewed and approved by the Quality Department of Takara Bio Inc.

4451 Page 1 of 2

v201905w

Notice To Purchaser:

Please refer to the website.

## Product Documents, Patent Markings, Trademarks, & Safety Information:

Refer to website for availability to download or contact your local office: www.takara-bio.co.jp (Japanese) www.takarabio.com (English)

## Licence Statements:

Please visit our website and click the "license" button on the product's web page.

## ©2019 Takara Bio Inc. All Rights Reserved.

All trademarks are the property of Takara Bio Inc. or its affiliate(s) in the U.S. and/or other countries or their respective owners. Certain trademarks may not be registered in all jurisdictions.

4451 Page 2 of 2

v201905w