CERTIFICATE OF ANALYSIS

PRODUCT NAME:	GLYKO® α (1-2,3,4,6) FUCOSIDASE (Bovine Kidney)
PRODUCT CODE:	GKX-5006
LOT NUMBER:	DG43 020a
FORMULATION:	Lyophilized from 20 m*M* sodium citrate phosphate buffer, 250 µg/ml BSA (pH 6.0)
STORAGE:	-20°C until reconstituted. Store redissolved enzyme at 4°C or -20°C, avoid repeated freeze-thaw cycles. The activity of the reconstituted enzyme is stable at 4°C for at least 3 months and at least 6 months when stored at -20°C.
PACK SIZE:	500 milliUnits
RECONSTITUTION:	Dissolve the lyophilizate in 273 µl of ultrapure water to obtain the described formulation.
EXPIRATION:	September 2019
SPECIFICITY:	The enzyme has broad substrate specificity, cleaving α(1-2,3,4 and 6)-linked fucose from N- and O-glycans. It cleaves α(1-6)-linked fucose on the trimannosyl core of N-linked oligosaccharides more efficiently than other α-fucose linkages. The fine specificity of the enzyme is complicated since the aglycon portion of the substrate significantly influences the substrate kinetics. The rate of cleavage is lower with increasing oligosaccharide size and complexity.
SUGGESTIONS FOR USE:	For digestion of isolated glycans, incubate 16-24 hours at 37°C in 1x Reaction Buffer with 0.5-1 U/ml of enzyme at a substrate concentration of 20-40 µ*M*.

QUALITY CONTROL

1.	Activity[1]:	Passed	(Specification: ≥500 mU/vial)
2.	Protease assay[2]:	Passed	(Specification: “Not Detectable”)

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3.	Contaminants[3]: (except as noted below)	Passed	(Specification: ≤0.005%)
	β-N-Acetylhexosaminidase	0.011%	

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Authorized Signature

1. One unit of α-Fucosidase is defined as the amount of enzyme which will catalyze the release of 1 µmole of p-nitrophenol from pNP-α-fucopyranoside per minute at pH 6.0 and 37°C.

2. No protease activity was detectable after incubation of the enzyme with 0.2 mg resorufin-labeled casein for ~18 hours at 37°C based on Schickaneder E, Hösel W, von der Eltz H, Geuß U. Casein-resorufin, a new substrate for a highly sensitive protease assay. Fresenius Z. Anal Chem. 1988 330:360.

3. The product was tested for exoglycosidase contaminants by extended incubations with the corresponding pNP-glycosides: α-mannosidase, β-mannosidase, α-galactosidase, β-galactosidase, β-N-acetylhexosaminidase, α-N-acetylgalactosaminidase, β-fucosidase, α-glucosidase, β-glucosidase and β-xylosidase. The product was tested for contaminating sialidase by extended incubation with MU-NANA.