CERTIFICATE OF ANALYSIS

PRODUCT NAME:	GLYKO α(1-2) MANNOSIDASE (from *Aspergillus saitoi*)
PRODUCT CODE:	GKX-5009
LOT NUMBER:	DG54 005-1
FORMULATION:	Lyophilized from ~1 m*M* sodium acetate (pH 5.0) with 250 µg/ml BSA (~30 µg BSA per vial)
RECONSTITUTION:	Reconstitute the enzyme in 1x Reaction Buffer (made from 5x stock supplied with the enzyme) or buffer of choice.
SUGGESTIONS FOR USE:	For the removal of non-reducing terminal α(1-2)-linked mannose residues from glycans, incubate 16 - 24 hours at 37°C in 1x Reaction Buffer with 1 - 2 mU/ml of enzyme at a substrate concentration of 15 µ*M*.
STORAGE:	-20°C until reconstituted. After reconstitution, store either at -20°C or at 2 - 8°C (the activity is stable for at least 4 months after reconstitution).
ENZYME PACK SIZE:	2 mU

COMPONENTS

Component	Quantity/Pack	Lot No.	Exp. Date
GKX-5009 α(1-2) Mannosidase (2 mU)	1 each	DG54 005	Dec 2018
WS0120 5x Reaction Buffer (1 ml) [500 m*M* Sodium Acetate, pH 5.0]	1 each	W170007	Jan 2021

QUALITY CONTROL

1. Activity[1]: Passed (Specification: ≥ 2 mU/vial)
2. Protease assay[2]: Passed (Specification: "Not Detectable")
3. Contaminants[3]: Passed (Specification: ≤0.5%)

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1. One unit of α(1-2) Mannosidase is defined as the amount of enzyme required to catalyze the release of 1 µmole of mannose from methyl-2-O-α-D-mannopyranosyl-α-D-mannopyranoside per minute at pH 5.0 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. **Note: the specification is based on the limit of detectability.** The absence of exoglycosidase contaminants was confirmed by extended incubations with the corresponding pNP-glycosides: α-fucosidase, β-fucosidase, β-mannosidase, β-N-acetylhexosaminidase, α-N-acetylgalactosaminidase, α-galactosidase, β-galactosidase, α-glucosidase, β-glucosidase and β-xylosidase. The product was tested for contaminating sialidase by extended incubation with MU-NANA.