



CERTIFICATE OF ANALYSIS

PRODUCT NAME: GLYKO α (1-2) MANNOSIDASE (from *Aspergillus saitoi*)

PRODUCT CODE: GKX-5009

LOT NUMBER: DG54 006-1

FORMULATION: Lyophilized from ~1 mM sodium acetate (pH 5.0) with 250 μ g/ml BSA (~30 μ g 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 37C 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 006 | Sep 2020 |
| WS0120 5x Reaction Buffer (1 ml) [500 mM Sodium Acetate, pH 5.0] | 1 each | W170007 | Jan 2021 |

QUALITY CONTROL

- Activity¹: Passed (Specification: ≥ 2 mU/vial)
- Protease assay²: Passed (Specification: "Not Detectable")
- Contaminants³: Passed (Specification: $\leq 0.5\%$)

Authorized Signature

1. One unit of $\alpha(1-2)$ Mannosidase is defined as the amount of enzyme required to catalyze the release of 1 μ mole 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.