α-(1-6) Core Mannosidase
α-D-Mannosidase Mannohydrolase

Source
recombinant in *E. Coli*

Catalog Number
E-AM02

Certification of Analysis Lot Number
401.1E

EC
3.2.1.34

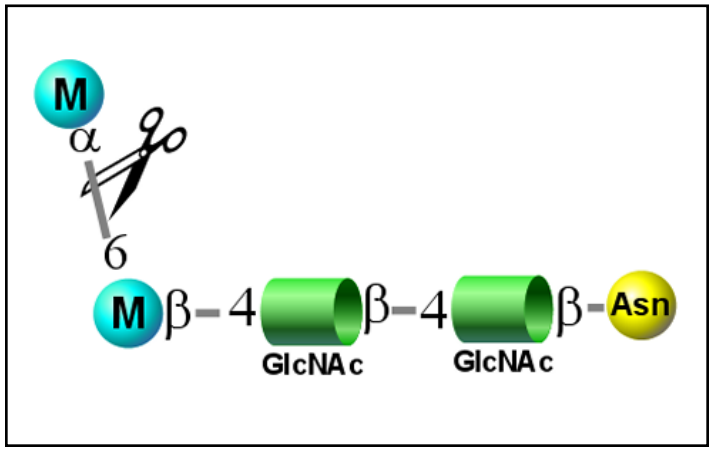
Contents
1 vial: α-(1-6) Core Mannosidase - 60 µl
1 vial: 5x Reaction buffer – 250 mM $NaHPO_4$, pH 5

Specific Activity 1 U/mg
Activity 1 U/ml

Application
•Analysis of mannose linkages
•Removal of α-(1-6) mannose resistant to other mannosidase enzymes

Molecular Weight ~52,000 daltons

Specific Activity
One unit of QA-Bio α-(1-6) Core Mannosidase is defined as the amount of enzyme required to produce 2 µmoles of p-nitrophenol (pNP) in 1 minute at 37°C, pH 5.0 from α-(1-6) mannobiose.



Specificity
Cleaves unbranched non-reducing terminal mannose, α(1-6) linked to the beta-linked core mannose of the conserved mannosylchitobiose core of N-linked oligosaccharides. The presence of fucose linked to the core N-acetylglucosamine has no effect on cleavage. The enzyme may inhibit other mannosidases if a noncleavable α(1-6) mannose is present on the substrate. It should therefore always be added subsequent to digestion by other mannosidases.

Formulation
The enzyme is provided as a sterile-filtered solution in 50 mM Sodium phosphate 0.1 m*M* $ZnCl_2$ pH 7.5.

Stability
Stable at least 12 months when stored properly. Several days exposure to ambient temperatures will not reduce activity.

Storage
Store enzyme at 4°C. Do not freeze.

E-AM02 α-(1-6)-Mannosidase Specifications - Protocol

Purity

QA-Bio α-(1-6)-Mannosidase is tested for contaminating protease as follows: 10 µg of denatured BSA is incubated at 37°C for 24 hours with 2 µl of enzyme. SDS-PAGE analysis of the treated BSA shows no evidence of degradation.

The production host strain has been extensively tested and does not produce any detectable glycosidases.

Directions for use

1. Add up to 1 nmol of oligosaccharide to tube.

2. Add de-ionized water to a total of 15 µl.

3. Add 4 µl 5x Reaction Buffer 5.0.

4. Add 1 µl α-(1-6) Core Mannosidase.

5. Incubate at 37°C for 10 minutes.

   Progress may be monitored by SDS-PAGE if the size differential between native and de-glycosylated protein is sufficient for detection.

Warranties and liabilities

QA-Bio, LLC warrants that the above product conforms to the specifications described herein. Should the product fail for reasons other than through misuse QA-Bio, LLC will, at its option, replace free of charge or refund the purchase price. This warranty is exclusive and QA-Bio, LLC makes no other warrants, expressed or implied, including any implied conditions or warranties of merchantability or fitness for any particular purpose. QA-Bio, LLC shall not be liable for any incidental, consequential or contingent damages.

This product is intended for *in vitro* research only.

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