



α -(1-6) Core Mannosidase

α -D-Mannosidase Mannohydrolase

Source

recombinant from *Streptococcus pneumoniae* in *E. Coli*

Catalog Number

E-AM02	60 μ l
E-AM02-20	20 μ l
E-AM02-200	200 μ l

EC

3.2.1.34

Recommended Reagents

included with E-AM02:

1 vial: 5x Reaction buffer – 250 mM NaHPO₄, pH 5

Activity \geq 1 U/ml

Specific Activity \geq 0.75 U/mg

Application

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

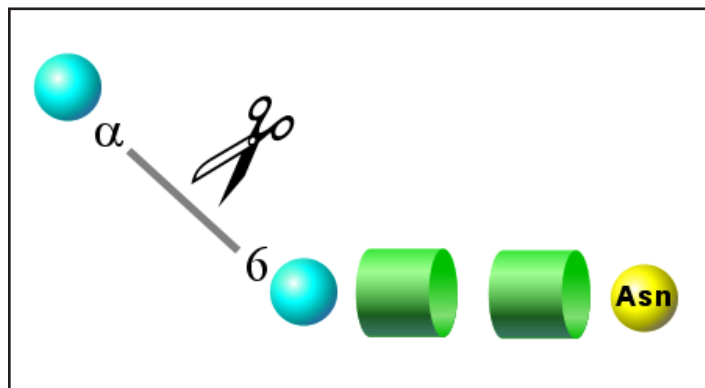
Molecular Weight ~52,000 daltons

Storage

Store enzyme at 4°C. Do not freeze.

Specific Activity

One unit of QA-Bio α -(1-6) Core Mannosidase is defined as the amount of enzyme required to produce 2 μ moles 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 mM ZnCl₂ pH 7.5.

Stability

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

Purity

QA-Bio α -(1-6)-Mannosidase is tested for contaminating protease as follows: 10 μ g of denatured BSA is incubated at 37°C for 24 hours with 2 μ l 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.

α -(1-6)-Mannosidase

Specifications - Protocol

Directions for use

1. Add up to 1 nmol of oligosaccharide to tube.
2. Add de-ionized water to a total of 15 μ l.
3. Add 4 μ l 5x Reaction Buffer 5.0.
4. Add 1 μ l 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, inc 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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