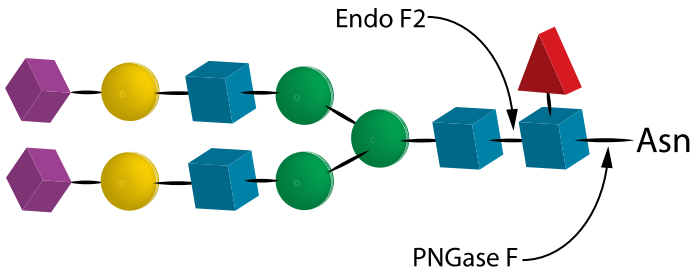

Endo F2 (Endoglycosidase F2)
Endo-beta-N-acetylglucosaminidase F2

Source
recombinant gene from *Elizabethkingia miricola* in *E. Coli*

Catalog Number E-EF02

E-EF02	60 µl
E-EF02-20	20 µl
E-EF02-200	200 µl

EC 3.2.1.96

Recommended Reagents
included with E-EF02:
1 vial: 5x Reaction Buffer - 400 µl
250 mM sodium acetate, pH4.5

Activity ≥ 5 U/ml
Specific Activity ≥ 20 U/mg

Molecular Weight 32 kD

Specific Activity
Defined as the amount of enzyme required to catalyze the release of N-linked oligosaccharides from 1 micro-mole of denatured porcine fibrinogen in 1 minute at 37°C, pH 5.5. Cleavage is monitored by SDS-PAGE (cleaved fibrinogen migrates faster).

Formulation
The enzyme is provided as a sterile-filtered solution in 10 m*M* sodium acetate, 25mM NaCl, pH 4.5

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

Specificity
QA-Bio™ Endo F2 cleaves Asparagine-linked biantennary and high mannose glycans (at a 40X reduced rate). It cleaves between the two N-acetylglucosamine residues in the diacetylchitobiose core of the oligosaccharide, generating a truncated sugar molecule with one N-acetylglucosamine residue remaining on the asparagine. In contrast, PNGase F removes the oligosaccharide intact.

Endoglycosidase F2 is less sensitive to protein conformation than PNGase F and is therefore more suitable for deglycosylation of native proteins. However for optimal results, denaturation of the glycoprotein is recommended.

Quality & Purity
QA-Bio Endo F2 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.

Stability
Several days exposure to ambient temperatures will not reduce activity. Stable at least 24 months when stored properly.

Endo F2

Specifications - Protocol

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Directions for use

1. Add up to 200 µg of glycoprotein to an Eppendorf tube.
2. Add deionized water to a total of 33 µL.
3. Add 10 µL 5X Reaction Buffer, 5.5.
4. Add 2.5 µL of Denaturation Solution. Heat at 90ºC for 10 minutes.
5. Cool to room temperature and add 2.5 µL Triton X-100 solution.
6. Add 2 µL of Endoglycosidase F2. Incubate 1 hour or more at 37ºC.
7. Monitor cleavage by SDS-PAGE.

For digestion of native proteins, add water to a total volume of 38 µL and omit steps 4 and 5. Increase incubation time appropriately.

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Warranties and Liabilities

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

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

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