Sialidase Au Alpha-(2-3,6,8,9)
Nueraminidase, NANase

Source
recombinant from Arthrobacter ureafaciens

Catalog Number E-S001

Certification of Analysis Lot Number 408.1A

EC 3.2.1.18

Applications
• Structural analysis of oligosaccharides
• Determining sialic acid linkage
• Glycoprotein deglycosylation
• Removing heterogeneity from glycoproteins

Contents
1 vial: Sialidase Au - 60 µl (.3 U) of
in 20 mM Tris-HCl, 25 mM NaCl, pH 7.5
1 vial: Reaction buffer
250 mM Sodium phosphate, pH 6.0

Specific Activity 135 U/mg
Activity 5 U/ml

Molecular Weight ~69,000 daltons
pH optimum 6.0, active over the range 4.5-7.

50 mM sodium phosphate (pH 6.0) provides the optimal buffer for enzyme activity with sialyllactose, a standard substrate. If glycosidase treatment is performed at suboptimal pH because of glycoprotein solubility or activity requirements, expect some diminution in enzyme activity.

Specific Activity
One unit of QA-Bio Sialidase Au is defined as the amount of enzyme required to produce 1 µmole of methylumbelliferone in 1 minute at 37°C, pH 5.0 from MU-NANA (2’-(4-methyl-umbelliferyl)-alpha-D-N acetylmuraminic acid).

Specificity
All non-reducing terminal branched and unbranched sialic acid.

Formulation
The enzyme is provided as a sterile-filtered solution in 20 mM Tris-HCl, 25 mM NaCl (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.

Purity
QA-Bio Sialidase Au 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 100 µg of glycoprotein or 1 nmol of oligosaccharide to tube.

2. Add de-ionized water to a total of 14 µl.

3. Add 4 µl Reaction Buffer 6.0.

4. Add 2 µl Sialidase Au.

5. Incubate at 37°C for 1 hour.

   NOTE: longer incubation times are necessary if branched sialic acids are present.

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

**References**


**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 warranties, 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.

*updated January 25, 2014*