Neuraminidase A

**Detailed Specificity:**
α2-3,6,8,9 Neuraminidase A will cleave branched sialic acid residues that are linked to an internal residue. This oligosaccharide from fetuin is an example of a side-branch sialic acid residue that can efficiently be cleaved (1).

**Source:** Cloned from *Arthrobacter ureafaciens* and expressed in *E. coli* (2).

**Reagents Supplied with Enzyme:**
10X GlycoBuffer 1
(0.5 M Sodium Acetate, pH 5.5 @ 25°C and 50 mM CaCl₂)

**Unit Definition:** One unit is defined as the amount of enzyme required to cleave > 95% of the terminal α-Neu5Ac from 1 nmol Neu5Acα2-3Galβ1-3GlcNAcβ1-3Galβ1-4Glc-AMC, in 1 hour at 37°C in a total reaction volume of 10 µl.

**Unit Definition Assay:** Two fold dilutions of α2-3,6,8,9 Neuraminidase A are incubated with 1 nmol AMC-labeled substrate and 1X GlycoBuffer 1 in a 10 µl reaction. The reaction mix is incubated at 37°C for 1 hour. Separation of reaction products are visualized via thin layer chromatography (3).

**Specific Activity:** -316,000 units/mg.

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