Neuraminidase (Sialidase)
From *Vibrio cholerae* Acylneuraminyl hydrolase, *EC 3.2.1.18*

**Cat. No.** 11 080 725 001  1 U

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**Product Description**

**Commercial Availability** Solution in 50 mM sodium acetate, 154 mM sodium chloride, 9 mM calcium chloride, 0.1% Micr-O-Protect (w/v). The preparation contains 10 mM EDTA.

**Specific Activity** ca. 20 U/mg total protein △ ca. 40 U/mg enzyme protein. One unit is the enzyme activity that hydrolyzes 1 µmol N-acetyl-neuraminosyl-D-lactose within 1 min at +37°C under the following incubation conditions: 10 mM N-acetyl-neuraminosyl-D-lactose, 50 mM sodium acetate, 4 mM calcium chloride, bovine serum albumin, 100 µg/ml, pH 5.5. The activity is determined by measuring the released D-lactose using the β-galactosidase/galactose dehydrogenase method (1). Under the same conditions 1 µmol N-acetyl-neuraminic acid per min is splitted off from human acid α1-glycoprotein (10 mg/ml incubation mixture) by 1 U neuraminidase. The released N-acetyl-neuraminic acid can be determined e.g., using the thiobarbituric acid method (2).

**Stability** The unopened reagent is stable at +2 to +8°C until the expiration date printed on the label.

**Isolation and Properties** The enzyme is isolated from the culture filtrate of *Vibrio cholerae* (4, 5). It hydrolyzes terminal N- or O-acyl-neuraminic acids in oligosaccharides, polysaccharides, mucopolysaccharides, glycoproteins and glycolipids that show α2-3, α2-6 or α2-8 bonds. Because of its properties (broad substrate specificity) this neuraminidase is very well suited for structural research studies on glycoconjugates and for hydrolytic cleavage of sialic acid from biological material (e.g., in cytology; on cell surfaces, viruses etc.).

**References**


**Changes to Previous Version** References to testing of protease activities removed.

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