Creative Enzymes®

Native Vibrio cholerae Neuraminidase

Cat. No. NATE-0481

Lot. No. (See product label)

Introduction

Description	Neuraminidase enzymes are glycoside hydrolase enzymes (EC 3.2.1.18) that cleave the glycosidic linkages of neuraminic acids. Neuraminidase enzymes are a large family, found in a range of organisms. The best-known neuraminidase is the viral neuraminidase, a drug target for the prevention of the spread of influenza infection. The viral neuraminidases are frequently used as antigenic determinants found on the surface of the Influenza virus. Some variants of the influenza neuraminidase confer more virulence to the virus than others. Other homologs are found in mammalian cells, which have a range of functions. At least four mammalian sialidase homologs have been described in the human genome (see NEU1, NEU2, NEU3, NEU4).
Applications	Neurminidase is used as a cell-surface probe for glyc oconjugate distribution and in substrate specificity studies. Neuraminidase from Vibrio cholerae has been used in a study to assess its role in the binding and uptake of cholera toxin by susceptible cells. It has also been used in a study to investigate the preparation of a sodium substrate and its use in a fluorometric assay of neuraminidase.
Synonyms	neuraminidase; sialidase; α-neuraminidase; acetylneuraminidase; exo-α-sialidase; EC 3.2.1.18; 9001-67-6

Product Information

Source	Vibrio cholerae
Form	Type I, buffered aqueous solution; Aqueous solution, pH 5.5, containing 0.15 M NaCl and 4 mM CaCl2; Type II, buffered aqueous solution, Solution in 50 mM sodium acetate, pH 5.5, containing 0.15 M sodium chloride and 4 mM calcium chloride; Type III, sterile filtered, aqueous solution, pH 5.5, 0.15 M NaCl and 4 mM CaCl2.
EC Number	EC 3.2.1.18
CAS No.	9001-67-6
Activity	Type I, 1-5 units/mg protein (Lowry, using NAN-lactose); Type II, 8-24 units/mg protein (Lowry, using NAN-lactose); Type III, > 1.5 units/mg protein.
Pathway	Other glycan degradation, organism-specific biosystem (from KEGG) Other glycan degradation, conserved biosystem (from KEGG) Vibrio cholerae infection, organism-specific biosystem (from KEGG) Vibrio cholerae infection, conserved biosystem (from KEGG)
Unit Definition	One unit will liberate 1.0 μmole of N-acetylneuraminic acid per min at pH 5.0 at 37°C using NAN-lactose or bovine submaxillary mucin, unless otherwise specified. Prices based on units using NAN-lactose as substrate.

Storage and Shipping Information

Storage	2-8°C