For life science research only.
Not for use in diagnostic procedures.

Neuraminidase (Sialidase)
from *Vibrio cholerae* Acylneuraminyl hydrolase

Version: 19
Content Version: December 2020

Cat. No. 11 080 725 001 1 U

Store the product at +2 to +8°C.

1. General Information

1.1. Contents

Vial / Bottle	Label	Function / Description	Content
1	Neuraminidase (Sialidase)	▪ 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.	1 vial, 1 ml

1.2. Storage and Stability

Storage Conditions (Product)

When stored at +2 to +8°C , the product is stable through the expiry date printed on the label.

Vial / Bottle	Label	Storage
1	Neuraminidase	Store at +2 to +8°C.

1.3. Application

Neuraminidase has a broad substrate specificity. It can be used for structural research studies on glycoconjugates and for hydrolytic cleavage of sialic acid from biological material such as in cytology, on cell surfaces, viruses, etc.

2. How to Use this Product

2.1. Before you Begin

Safety Information

Laboratory procedures

- Handle all samples as if potentially infectious, using safe laboratory procedures. As the sensitivity and titer of potential pathogens in the sample material varies, the operator must optimize pathogen inactivation by the Lysis / Binding Buffer or take appropriate measures, according to local safety regulations.
- Do not eat, drink or smoke in the laboratory work area.
- Do not pipette by mouth.
- Wear protective disposable gloves, laboratory coats and eye protection, when handling samples and kit reagents.
- Wash hands thoroughly after handling samples and reagents.

Waste handling

- Discard unused reagents and waste in accordance with country, federal, state, and local regulations.
- Safety Data Sheets (SDS) are available online on dialog.roche.com, or upon request from the local Roche office.

2.2. Parameters

EC-Number

EC 3.2.1.18

Specific Activity

Approximately 20 U/mg total protein, that is approximately 40 U/mg enzyme protein.

Specificity

Neuraminidase hydrolyzes terminal N- or O-acylneuraminic acids in oligosaccharides, polysaccharides, mucopolysaccharides, glycoproteins, and glycolipids that show α2–3, α2–6 or α2–8 bonds.

Unit Definition

One unit is the enzyme activity that hydrolyzes 1 µmol N-acetyl-neuraminosyl-D-lactose within 1 minute at +37°C under the following incubation conditions: 10 mM N-acetyl-neuraminosyl-D-lactose, 50 mM sodium acetate, 4 mM calcium chloride, 100 µg/ml bovine serum albumin, pH 5.5.
The activity is determined by measuring the released D-lactose using the β-galactosidase/galactose dehydrogenase method. Under the same conditions, 1 µmol N-acetyl-neuraminic acid per minute is split off from human acid α1-glycoprotein (10 mg/ml incubation mixture) by 1 U Neuraminidase. The released N-acetyl-neuraminic acid can be determined by, for example, using the thiobarbituric acid method.

3. Additional Information on this Product

3.1. Test Principle

Preparation

The enzyme is isolated from the culture filtrate of *Vibrio cholerae*.

4. Supplementary Information

4.1. Conventions

To make information consistent and easier to read, the following text conventions and symbols are used in this document to highlight important information:

Text convention and symbols	
Information Note: Additional information about the current topic or procedure.	
Important Note: Information critical to the success of the current procedure or use of the product.	
① ② ③ etc.	Stages in a process that usually occur in the order listed.
❶ ❷ ❸ etc.	Steps in a procedure that must be performed in the order listed.
* (Asterisk)	The Asterisk denotes a product available from Roche Diagnostics.

4.2. Changes to previous version

Layout changes.
Editorial changes.
Update to include new safety Information to ensure handling according controlled conditions.

4.3. Trademarks

All product names and trademarks are the property of their respective owners.

4.4. License Disclaimer

For patent license limitations for individual products please refer to:
List of biochemical reagent products.

4.5. Regulatory Disclaimer

For life science research only. Not for use in diagnostic procedures.

4.6. Safety Data Sheet

Please follow the instructions in the Safety Data Sheet (SDS).

4.7. Contact and Support

To ask questions, solve problems, suggest enhancements or report new applications, please visit our **Online Technical Support Site**.

To call, write, fax, or email us, visit **sigma-aldrich.com**, and select your home country. Country-specific contact information will be displayed.

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