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

Neuraminidase (Sialidase)
from *Arthrobacter ureafaciens*

Version: 18
Content Version: December 2020

Cat. No. 10 269 611 001 1 U
100 µl

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 10 mM sodium phosphate, 0.1% Micr-O-Protect (w/v), 0.25 mg/ml bovine serum albumin, pH 7.0.	1 vial, 100 µl

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 broad substrate specificity and is therefore very well suited for the entire removal of sialic acids from glycoconjugates of a wide variety of biological materials.

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

Contaminants

Absence of proteases

After incubation of 0.5 U Neuraminidase with 200 µg casein, resorufin-labeled, for 17 hours at +37°C in 200 µl 50 mM Tris-HCl, 5 mM calcium chloride, pH 7.8, no protease activity is detectable (ΔA in standard assay <0.01).

Specific Activity

Approximately 25 U/mg total protein, that is approximately 100 U/mg enzyme protein.

Specificity

Neuraminidase hydrolyzes terminal N- or O-acylneuraminic acids which are α2–3, α2–6 or α2–8 (rate: α2–6 > α2–3 > α2–8) linked to oligosaccharides, polysaccharides, mucopolysaccharides, glycoproteins, and glycolipids.
For the hydrolysis of glycolipids, the presence of a detergent is necessary.

Unit Definition

One unit is the enzyme activity that hydrolyzes 1 µmol N-acetyl-neuraminosyl-D-lactose in 1 minute at +25°C under the following incubation conditions: 10 mM N-acetyl-neuraminosyl-D-lactose, 50 mM sodium acetate, pH 5. The activity is determined by measuring the released D-lactose using the β-galactosidase/galactose dehydrogenase method.
At +37°C, the enzymatic activity is 1.4-fold higher than at +25°C.

3. Additional Information on this Product

3.1. Test Principle

Preparation

The enzyme is isolated from the culture filtrate of *Arthrobacter ureafaciens*.

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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