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

Triton X-100

Octylphenolpoly-(ethyleneglycolether)$_x$

Version: 19
Content Version: October 2019

Especially purified for membrane research.

Cat. No. 11 332 481 001	50 ml 5 x 10 ml

Store the product at +2 to +8°C.

1. General Information

1.1. Contents

Vial / Bottle	Label	Function / Description	Content
1	Triton X-100	▪ Non-ionic detergent ▪ Aqueous solution, 10% (w/v), filled in injection bottles under nitrogen. *Filling in airtight injection bottles guarantees a constant quality during dispatch and storage. All detergent solutions of the polyoxyethylene type are supplied in 10 ml bottles to prevent peroxide formation after the first use.*	5 bottles, 10 ml each

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	Triton X-100	Store at +2 to +8°C. ***Keep protected from light.***

1.3. Application

Triton X-100 is one of the most commonly used non-ionic detergents for solubilizing membrane proteins during the isolation of membrane-protein complexes.

2. How to Use this Product

2.1. Before you Begin

General Considerations

Critical micelle concentration (CMC)

Approximately 0.2 × 10^{-3} M (+25°C).

Cloud point

+65°C

2.2. Parameters

Absorbance

$A_{254\ nm}$: 0.88 (0.2% w/v)
$A_{278\ nm}$: 1.11 (0.5% w/v)

Chemical Formula

$C_{34}H_{62}O_{11}$ for x = 10

Chemical Name

Structural formula

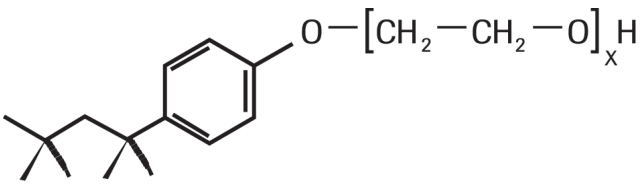

Fig. 1: Chemical structure of Triton X-100.

Contaminants

Triton X-100 has been purified to reduce levels of unwanted peroxides, carbonyl compounds, and salts.
<2 ppm peroxide content (as H_2O_2)

Molecular Weight

647 for chain length x = 10

Working Concentration

>1 to 5 mM
The solutions can easily be removed through the cap of the bottle with a syringe.

3. Additional Information on this Product

3.1. Test Principle

Membrane proteins are highly sensitive towards peroxides and carbonyl compounds. While proteins are oxidized by peroxides, the Schiff's base formed during the reaction with carbonyl compounds can influence a protein's function.

- Salts disturb the isolation of membrane-bound proteins.
- Detergents of the polyoxyethylene type may contain, depending on production and storage, contaminations of peroxides, carbonyl compounds, and salts.
- Peroxide formation is strongly enhanced by light.

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.

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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Roche Diagnostics GmbH
Sandhofer Strasse 116
68305 Mannheim
Germany