

Triton X-100

Octylphenolpoly(ethyleneglycolether)_x
Especially purified for membrane research

Cat. No. 11 332 481 001

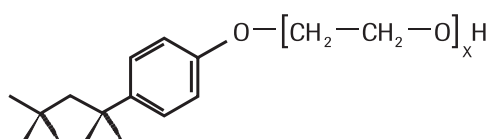
50 ml (5 x 10 ml)

Version Sept. 2005

Store at +2 to +8° C

Detergent type Non-ionic detergent

Structure



Formula C₃₄H₆₂O₁₁ for x = 10

Molecular weight 647 for x = 10

Form 10% aqueous solution (w/v), filled in injection bottles under nitrogen.

Typical analysis Peroxide content (as H₂O₂) < 2 ppm

Application

Triton¹⁾ X-100 is one of the most commonly used non-ionic detergents for solubilizing membrane proteins during isolation of membrane-protein complexes.

Critical micelle concentration (CMC) approx. 0.2 × 10⁻³ M (25° C)

Stability Stable at +2 to +8°C, protected from light.

Absorbance (254 nm): 0.88 (0.2% w/v)
(278 nm): 1.11 (0.5% w/v)

Cloud point 65° C

Working concentration* > 1-5 mM (1, 2)

Note

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 for example influence the proteins function. Also salts are disturbing the isolation of membrane bound proteins. Detergents of the polyoxyethylene type might contain – depending on production and storage – contaminations of peroxides, carbonyl compounds and salts. Peroxide formation is strongly enhanced by light (3, 4). Triton X-100 has been purified to reduce levels of unwanted peroxides, carbonyl compounds and salts. The filling in airtight injection vials guarantees the constant quality during dispatch and storage. Roche Diagnostics supplies all detergent solutions of the polyoxyethylene type subdivided in 10 ml vials to prevent formation peroxide after the first use. The solutions can easily be removed through the cap of the vial with a syringe.

References

- 1 Barbero, M. L. et al. (1984) *Arch. Biochem. Biophys.* **228**, 560-568.
- 2 Schubert, D. et al. (1983) *FEBS Lett.* **163**, 81.
- 3 Ashani, Y. C. & Catravas, G. N. (1980) *Anal. Biochem.* **109**, 55-62.
- 4 Lever, M. (1977) *Anal. Biochem.* **83**, 274-284.

Ordering Information

Product	Cat. No.	Pack size
Detergent Adsorber-Gel	11 500 678 001	50 ml
Non-ionic Detergents		
Digitonin, high purity	11 500 643 001	1 g
	11 518 968 001	5 g
n-Dodecylmaltoside	10 821 608 001	1 g
Nonidet ²⁾ P40	11 332 473 001	5 × 10 ml
aqueous solution, 10% w/v		
n-Octylglucoside	10 411 434 001	1 g
	10 737 062 001	2 g
	11 585 401 001	5 g
	10 634 425 001	10 g
	10 737 674 001	20 g
	11 359 088 001	50 g
Thesit ³⁾	10 836 630 001	100 g
Triton X-100	10 789 704 001	100 ml
Triton X-114	11 033 441 001	100 ml
Tween ⁴⁾ 20	11 332 465 001	5 × 10 ml
aqueous solution, 10% w/v		
Ionic Detergents		
Deoxycholic acid	11 332 597 001	5 g
Sodium dodecyl sulfate (SDS)	11 028 685 001	100 g
	11 028 693 001	500 g
Zwitterionic Detergents		
CHAPS	10 810 100 001	1 g
	10 810 118 001	10 g
	10 810 126 001	50 g
N-Dodecyl-N,N-dimethyl-3-ammonio-1-propanesulfonate	11 112 724 001	50 g
Detergent Trial Set	11 652 826 001	1 set
Digitonin (high purity), Dodecyl-β-maltoside, Octylglucoside, Nonidet P40, Triton X-100, Tween 20, Deoxycholic acid and CHAPS.		

This combination comprises only the most important products related to the product described. Please refer to our latest catalogue for our current product range or contact your local RAS representative directly.

* We recommend to use these values only as a starting point. The optimal working concentration can differ depending on the application.

1) Triton is a trademark of Rohm & Haas Company, Philadelphia, PA, USA.

2) Nonidet is a trademark of Shell International Petroleum Company Limited, U.K.

3) Thesit is a trademark of Desitin-Werk, Carl Klinke GmbH, Hamburg, Germany.

4) Tween is a trademark of ICI Americas, Inc., USA.

Contact and Support

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

www.roche-applied-science.com/support

To call, write, fax, or email us, visit the Roche Applied Science home page, www.roche-applied-science.com, and select your home country. Country-specific contact information will be displayed. Use the Product Search function to find Pack Inserts and Material Safety Data Sheets.



Roche Diagnostics GmbH
Roche Applied Science
68298 Mannheim
Germany