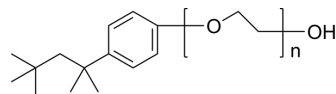


## Triton X-100

<b>Cat. No.:</b>	HY-Y1883A		
<b>CAS No.:</b>	9002-93-1		
<b>Target:</b>	Biochemical Assay Reagents		
<b>Pathway:</b>	Others		
<b>Storage:</b>	Pure form	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



### SOLVENT & SOLUBILITY

<b>In Vitro</b>	DMSO : 100 mg/mL (ultrasonic and warming and heat to 60°C)
<b>In Vivo</b>	<ol style="list-style-type: none"> <li>Add each solvent one by one: 10% DMSO &gt;&gt; 40% PEG300 &gt;&gt; 5% Tween-80 &gt;&gt; 45% saline Solubility: ≥ 2.5 mg/mL (Infinity mM); Clear solution</li> <li>Add each solvent one by one: 10% DMSO &gt;&gt; 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (Infinity mM); Clear solution</li> <li>Add each solvent one by one: 10% DMSO &gt;&gt; 90% corn oil Solubility: ≥ 2.5 mg/mL (Infinity mM); Clear solution</li> </ol>

### BIOLOGICAL ACTIVITY

<b>Description</b>	Triton X-100 is a non-denaturing detergent that solubilizes lipid membranes. Triton X-100 is commonly used in laboratories and is applied to vaccines at different stages of the manufacturing process. Triton X-100 is listed as an excipient in certain vaccines including split virus influenza vaccines. Triton X-100 is a nonionic surfactant <sup>[1][2]</sup> .
<b>In Vitro</b>	<p>Triton X-100 (0.5%-0.05%, 1 h) reduces the infectivity of a classical enveloped virus such as West Nile virus (WNV)<sup>[3]</sup>.</p> <p>Triton X-100 (0.19-0.20 mM) makes the HeLa cells underwent irreversible permeabilization of the membrane and structural collapse<sup>[4]</sup>.</p> <p>Triton X-100 (0.01%, 1 h) induces apoptotic and necrotic death in prostate and colon cancer cell lines (PC-3, SW-620 and HT-29 cells), characterized by the typical morphological features and internucleosomal DNA fragmentation<sup>[5]</sup>.</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>

### CUSTOMER VALIDATION

- Bioact Mater. 2023 September, 27, 271-287.
- Autophagy. 2022 Nov 30.
- Biomed Pharmacother. 2023 Aug 1;165:115227.

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- Hum Cell. 2022 Sep 24.

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## REFERENCES

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- [1]. Colavita F, et al. Evaluation of the inactivation effect of Triton X-100 on Ebola virus infectivity. J Clin Virol. 2017 Jan;86:27-30.
- [2]. Koley D, et al. Triton X-100 concentration effects on membrane permeability of a single HeLa cell by scanning electrochemical microscopy (SECM). Proc Natl Acad Sci U S A. 2010 Sep 28;107(39):16783-7.
- [3]. Borner MM, et al. The detergent Triton X-100 induces a death pattern in human carcinoma cell lines that resembles cytotoxic lymphocyte-induced apoptosis. FEBS Lett. 1994 Oct 17;353(2):129-32.
- [4]. Herman SM, et al. The hidden allergen: Triton X-100, a derivative of polyethylene glycol. J Allergy Clin Immunol Pract. 2021;9(7):2941.
- [5]. Ghosh R, et al. Unraveling diverse action of triton X-100 and methimazole on lysozyme fibrillation/aggregation: Physicochemical insights. Int J Biol Macromol. 2021;167:736-745.
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**Caution: Product has not been fully validated for medical applications. For research use only.**

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