



# SZABO SCANDIC

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## Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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### Lieferung & Zahlungsart

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### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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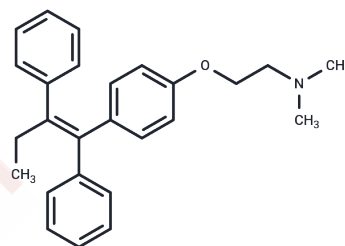
[www.szabo-scandic.com](http://www.szabo-scandic.com)

[linkedin.com/company/szaboscandic](https://www.linkedin.com/company/szaboscandic) 

## Tamoxifen

## Chemical Properties

CAS No. :	10540-29-1
Formula:	C <sub>26</sub> H <sub>29</sub> NO
Molecular Weight:	371.5146
Appearance:	no data available
Storage:	keep away from direct sunlight Powder: -20°C for 3 years   In solvent: -80°C for 1 year



## Biological Description

Description	Tamoxifen (ICI47699) is a selective and orally effective estrogen receptor modulator (SERM). Tamoxifen has both inhibitory (e.g., mammary cells) and activating (e.g., bone, liver, and uterine cells) activity against estrogens.
Targets(IC50)	Apoptosis, Estrogen Receptor/ERR, HSP, Estrogen/progestogen Receptor, Autophagy
In vitro	<p><b>METHODS:</b> Human breast cancer cells MCF-7 were treated with Tamoxifen (0.25-4 μM) for 24 h. Cell viability was measured using the CCK-8.</p> <p><b>RESULTS:</b> Tamoxifen significantly inhibited the proliferation of MCF-7 cells in a dose-dependent manner. [1]</p> <p><b>METHODS:</b> ER-negative breast cancer cells SK-BR3, MDA-MB-453, MDA-MB-468, MDA-MB-231, and HCC-1937 were treated with Tamoxifen (1-10 μM) for 24-36 h, and apoptosis was detected using Flow Cytometry.</p> <p><b>RESULTS:</b> Tamoxifen induced apoptosis in MDA-MB-231, MDA-MB-468, MDA-MB-453 and SK-BR3 cells in a dose- and time-dependent manner, while no significant apoptotic effect was observed in HCC-1937 cells. [2]</p>
In vivo	<p><b>METHODS:</b> To test the antitumor activity in vivo, Tamoxifen (100 mg/kg) was administered orally to NCr athymic nude mice bearing ER-negative breast cancer tumors MDA-MB-468 or HCC-1937 three times per week for four to five weeks.</p> <p><b>RESULTS:</b> Tamoxifen significantly inhibited the growth of MDA-MB-468 tumors, whereas the growth of HCC-1937 tumors was not affected. [2]</p> <p><b>METHODS:</b> To test the effect on mouse behavior, Tamoxifen (75 mg/kg in 10% ethanol+90% sunflower seed oil) was administered intraperitoneally to C57BL/6 mice once a day for seven days.</p> <p><b>RESULTS:</b> Tamoxifen affects motor activity, socialization, and anxiety in mice. [3]</p>

## Solubility Information

Solubility	DMSO: 6.25 mg/mL (16.82 mM), Ethanol: 37.2 mg/mL (100 mM), (< 1 mg/ml refers to the product slightly soluble or insoluble)
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### Preparing Stock Solutions

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	<b>1mg</b>	<b>5mg</b>	<b>10mg</b>
1 mM	2.6917 mL	13.4586 mL	26.9172 mL
5 mM	0.5383 mL	2.6917 mL	5.3834 mL
10 mM	0.2692 mL	1.3459 mL	2.6917 mL
50 mM	0.0538 mL	0.2692 mL	0.5383 mL

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Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

### Reference

Li W, et al. Tamoxifen promotes apoptosis and inhibits invasion in estrogen-positive breast cancer MCF-7 cells. Mol Med Rep. 2017 Jul;16(1):478-484.

**Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins**

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