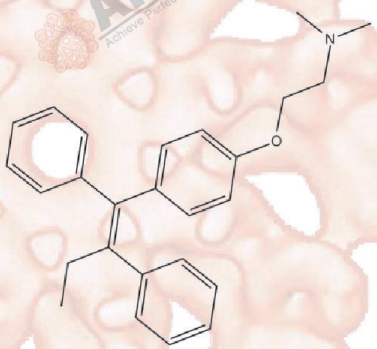
Product Data Sheet

Tamoxifen



Cat. No.: B5965
CAS No.: 10540-29-1
Formula: C26H29NO
M.Wt: 371.51
Synonyms:
Target: TGF-β / Smad Signaling
Pathway:
Storage: Store at -20°C

Solvent & Solubility

In Vitro

≥18.6 mg/mL in DMSO; insoluble in H2O; ≥85.9 mg/mL in EtOH

Preparing Stock Solutions

Concentration \ Mass / Solvent	1mg	5mg	10mg
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

Please refer to the solubility information to select the appropriate solvent.

Biological Activity

Shortsummary	TGF-β modulatory and PKC inhibitory effects
IC_{50} & Target	

In Vitro

Cell Viability Assay

Cell Line:	PC3 and PC3-M prostate carcinoma cells, DU-145 cells
Preparation method:	The solubility of this compound in DMSO is >18.6mg/mL. General tips for obtaining a higher concentration: Please warm the tube at 37 °C for 10 minutes and/or shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.
Reacting conditions:	10 μM, 3 days

	Applications:	In PC3-M cells, treatment with tamoxifen for 3days dose-dependently inhibited cell growth. Tamoxifen (10 μM) inhibited protein kinase C activity in PC3-M cells. Tamoxifen and TGF-β showed additive effects upon thymidine uptake in PC3-M cells. Cytosolic Rb protein decreased 12 hr after treatment with tamoxifen, continuing to decline for at least 24 hr. In the nucleus, the phosphorylated form of Rb disappeared between 12–24 hr after treatment with tamoxifen.
In Vivo	**Animal experiment**	
	Animal models:	Ovariectomized nude mice bearing MCF-7 xenografts
	Dosage form:	21 days
	Applications:	Treatment with TAM resulted in a slowing of tumor growth (tumor doubling time, 12 days), a significant increase in Tpot to 6.6 days, and a decrease in %LI to 8% by 23 days posttreatment. TAM treatment significantly decreased tumor cell proliferation in MCF-7 xenografts.
	Other notes:	Please test the solubility of all compounds indoor, and the actual solubility may slightly differ with the theoretical value. This is caused by an experimental system error and it is normal.

Product Citations

1. Ungerleider NA, Rao SG, et al. "Breast cancer survival predicted by TP53 mutation status differs markedly depending on treatment." Breast Cancer Res. 2018 Oct 1;20(1):115.PMID:30285883

See more customer validations on www.apexbt.com.

References

[1]. Rohlff C, Blagosklonny M V, Kyle E, et al. Prostate cancer cell growth inhibition by tamoxifen is associated with inhibition of protein kinase C and induction of p21waf1/cip1[J]. The Prostate, 1998, 37(1): 51-59.

[2]. Sarkaria J N, Gibson D F C, Jordan V C, et al. Tamoxifen-induced increase in the potential doubling time of MCF-7 xenografts as determined by bromodeoxyuridine labeling and flow cytometry[J]. Cancer research, 1993, 53(18): 4413-4417.

Caution

FOR RESEARCH PURPOSES ONLY.

NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

Specific storage and handling information for each product is indicated on the product datasheet. Most APExBIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Shortterm storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.

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