Toremifene

Cat. No.: HY-B0005A

CAS No.: 89778-26-7

Molecular Formula: $C_{26}H_{28}ClNO$

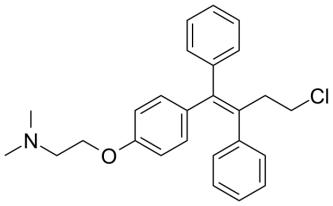
Molecular Weight: 405.96

Target: Estrogen Receptor/ERR

Pathway: Vitamin D Related/Nuclear Receptor

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	6 months
	-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 62.5 mg/mL (153.96 mM; ultrasonic and warming and heat to 60°C)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	2.4633 mL	12.3165 mL	24.6330 mL
5 mM	0.4927 mL	2.4633 mL	4.9266 mL
10 mM	0.2463 mL	1.2316 mL	2.4633 mL

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

BIOLOGICAL ACTIVITY

Description

Toremifene (Z-Toremifene) is a second-generation selective estrogen-receptor modulator (SERM) in development for the prevention of osteoporosis. Toremifene also potent inhibits infectious EBOV Zaire and Marburg (MARV) with IC_{50} of 0.07 μM and 2.6 μM, respectively[1][2].

In Vitro

Toremifene is a second-generation selective estrogen-receptor modulator (SERM) in development for the prevention of osteoporosis and other adverse effects resulting from ADT with prostate cancer[1].

The growth of Ac-1 cells was inhibited by tamoxifen, toremifene and atamestane in vitro with IC50values of 1.8±1.3μM, 1±0.3 μM and 60.4±17.2μM, respectively. The combination of toremifene plusatamestane was found to be better than toremifene or atamestane alone in vitro[3].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo

The effect of this combination was then studied in vivo using Ac-1 xenografts grown in ovariectomized female SCID mice. The mice were injected with toremifene (1000μg/day), atamestane (1000μg/day), tamoxifen (100μg/day), or the combination of toremifene plus atamestane. In this study, our results indicate that the combination of toremifene plus atamestane was as effective as toremifene or tamoxifen alone but may not provide any additional benefit over toremifene

alone or tamoxifen alone[3].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- J Med Chem. 2020 Oct 8;63(19):11085-11099.
- Viruses. 2021 Jun 28;13(7):1255.
- J Pharmaceut Biomed. 2020, 113870.
- Patent. US11696914.
- Research Square Preprint. 2020 Nov 4;rs.3.rs-100914.

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REFERENCES

[1]. Matthew R Smith, Selective Estrogen Receptor Modulators to Prevent Treatment-Related Osteoporosis.Rev Urol. 2005; 7(Suppl 3): S30-S35.

[2]. Gauri J Sabnis, Luciana Macedo, Olga Goloubeva, Toremifene - Atamestane; Alone or In Combination: Predictions from the Preclinical Intratumoral Aromatase Model. J Steroid Biochem Mol Biol. 2008 January; 108(1-2): 1-7.

[3]. Taneja SS, Morton R, Barnette G, Prostate cancer diagnosis among men with isolated high-grade intraepithelial neoplasia enrolled onto a 3-year prospective phase III clinical trial of oral toremifene. J Clin Oncol. 2013 Feb 10;31(5):523-9.

[4]. Laura Cooper, et al. Screening and Reverse-Engineering of Estrogen Receptor Ligands as Potent Pan-Filovirus Inhibitors. J Med Chem. 2020 Sep 4.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA