Product Data Sheet

Toremifene-d6 citrate

Cat. No.: HY-B0005S

CAS No.: 1246833-71-5

Molecular Formula: C₃₂H₃₀D₆ClNO₈

Molecular Weight: 604.12

Target: Estrogen Receptor/ERR; Apoptosis

Pathway: Others; Apoptosis

Storage: Please store the product under the recommended conditions in the Certificate of

Analysis.

BIOLOGICAL ACTIVITY

Description	Toremifene-d6 (Z-Toremifene-d6) citrate is the deuterium labeled Toremifene citrate. Toremifene citrate (Z-Toremifene citrate) is a second-generation selective estrogen-receptor modulator (SERM) in development for the prevention of osteoporosis. Toremifene citrate also potent inhibits infectious EBOV Zaire and Marburg (MARV) with IC $_{50}$ of 0.07 μ M and 2.6 μ M, respectively ^{[1][2]} .
In Vitro	Stable heavy isotopes of hydrogen, carbon, and other elements have been incorporated into drug molecules, largely as tracers for quantitation during the drug development process. Deuteration has gained attention because of its potential to affect the pharmacokinetic and metabolic profiles of drugs ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. Ann Pharmacother. 2019;53(2):211-216.

 $[2]. \ Matthew\ R\ Smith, Selective\ Estrogen\ Receptor\ Modulators\ to\ Prevent\ Treatment-Related\ Osteoporosis. Rev\ Urol.\ 2005;\ 7 (Suppl\ 3):\ S30-S35.$

[3]. 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.

[4]. 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.

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

Caution: Product has not been fully validated for medical applications. For research use only.

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