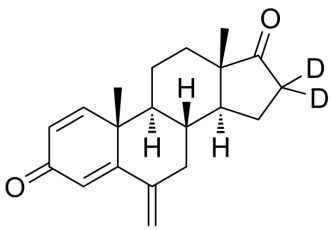
Exemestane-d_2

Cat. No.:	HY-13632S
Molecular Formula:	$C_{20}H_{22}D_2O_2$
Molecular Weight:	298.42
Target:	Isotope-Labeled Compounds; Cytochrome P450
Pathway:	Others; Metabolic Enzyme/Protease
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Exemestane-d_2 is the deuterium labeled Exemestane. Exemestane (FCE 24304) is a selective, irreversible and orally active steroidal aromatase inhibitor with IC50s of 30 nM and 40 nM for human placental and rat ovarian aromatase, respectively. Exemestane can be used for hormone-dependent breast cancer research[1][2].
IC_{50} & Target	Aromatase
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]. Di Salle, E., et al., Novel aromatase and 5 alpha-reductase inhibitors. J Steroid Biochem Mol Biol, 1994. 49(4-6): p. 289-94.;Miki, Y, et al. Effects of aromatase inhibitors on human osteoblast and osteoblast-like cells: a possible androgenic bone protective effects induced by exemestane. Bone. 2004 Sep 1;10(17):5717-23.;Goss, P.E., et al., Effects of the steroidal aromatase inhibitor exemestane and the nonsteroidal aromatase inhibitor letrozole on bone and lipid metabolism in ovariectomized rats. Clin Cancer Res, 2004. 10(17): p. 5717-23.;Zaccheo, T., D. Giudici, and E. Di Salle, Inhibitory effect of combined treatment with the aromatase inhibitor exemestane and tamoxifen on DMBA-induced mammary tumors in rats. J Steroid Biochem Mol Biol, 1993. 44(4-6): p. 677-80.

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