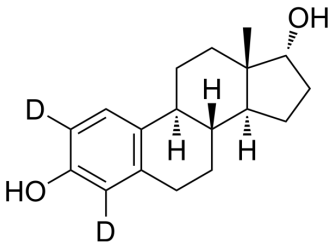
Alpha-Estradiol-d_2

Cat. No.:	HY-B0141AS1
CAS No.:	81586-94-9
Molecular Formula:	$C_{18}H_{22}D_2O_2$
Molecular Weight:	274.39
Target:	5 alpha Reductase; Endogenous Metabolite
Pathway:	Metabolic Enzyme/Protease
Storage:	Powder -20°C 3 years 4°C 2 years In solvent -80°C 6 months -20°C 1 month



BIOLOGICAL ACTIVITY

Description	Alpha-Estradiol-d_2 is the deuterium labeled Alpha-Estradiol. Alpha-Estradiol is a weak estrogen and a 5α-reductase inhibitor which is used as a topical medication in the treatment of androgenic alopecia[1].
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]. Santos RS, et al. The effects of 17 alpha-estradiol to inhibit inflammation in vitro. Biol Sex Differ. 2017 Sep 6;8:30.

[3]. Schriefers H, et al. Inhibition of testosterone metabolism by 17-alpha-estradiol in rat liver slices. Arzneimittelforschung. 1991 Nov;41(11):1186-9.

[4]. Zhang HB, et al. 17-Alpha-estradiol ameliorating oxygen-induced retinopathy in a murine model. Jpn J Ophthalmol. 2012 Jul;56(4):407-15.

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