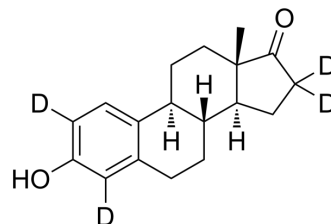


Estrone-d₄

Cat. No.:	HY-B0234S2		
CAS No.:	53866-34-5		
Molecular Formula:	C ₁₈ H ₁₈ D ₄ O ₂		
Molecular Weight:	274.39		
Target:	Estrogen Receptor/ERR; Endogenous Metabolite		
Pathway:	Vitamin D Related/Nuclear Receptor; Metabolic Enzyme/Protease		
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 : 25 mg/mL (91.11 mM; ultrasonic and warming and heat to 60°C)
 H₂O : 0.1 mg/mL (0.36 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent	Mass	1 mg	5 mg	10 mg
	Concentration				
	1 mM		3.6444 mL	18.2222 mL	36.4445 mL
	5 mM		0.7289 mL	3.6444 mL	7.2889 mL
	10 mM		0.3644 mL	1.8222 mL	3.6444 mL

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

BIOLOGICAL ACTIVITY

Description

Estrone-d₄ is the deuterium labeled Estrone. Estrone (E1) is a natural estrogenic hormone. Estrone is the main representative of the endogenous estrogens and is produced by several tissues, especially adipose tissue. Estrone is the result of the process of aromatization of androstenedione that occurs in fat cells[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]. Caupos E, et al. Photodegradation of estrone enhanced by dissolved organic matter under simulated sunlight. Water Res. 2011;45(11):3341-3350.

[3]. de Padua Mansur A, et al. Long-term prospective study of the influence of estrone levels on events in postmenopausal women with or at high risk for coronary artery disease. ScientificWorldJournal. 2012;2012:363595.

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

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