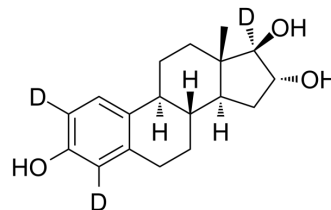


Estriol-d₃

Cat. No.:	HY-B0412S2		
CAS No.:	79037-36-8		
Molecular Formula:	C ₁₈ H ₂₁ D ₃ O ₃		
Molecular Weight:	291.4		
Target:	Estrogen Receptor/ERR; Endogenous Metabolite; Isotope-Labeled Compounds		
Pathway:	Vitamin D Related/Nuclear Receptor; Metabolic Enzyme/Protease; Others		
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 : 250 mg/mL (857.93 mM; Need ultrasonic)
 H2O : 0.1 mg/mL (0.34 mM; ultrasonic and warming and heat to 80°C)

Preparing Stock Solutions	Solvent	Mass	1 mg	5 mg	10 mg
	Concentration				
	1 mM		3.4317 mL	17.1585 mL	34.3171 mL
	5 mM		0.6863 mL	3.4317 mL	6.8634 mL
	10 mM		0.3432 mL	1.7159 mL	3.4317 mL

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

BIOLOGICAL ACTIVITY

Description

Estriol-d₃ is the deuterium labeled Estriol. Estriol is an antagonist of the G-protein coupled estrogen receptor in estrogen receptor-negative breast cancer cells.

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]. Morinaga, A., et al., Effects of sex hormones on Alzheimer's disease-associated beta-amyloid oligomer formation in vitro. *Exp Neurol*, 2011. 228(2): p. 298-302.

[3]. Begum, M., et al., Neonatal estrogenic exposure suppresses PTEN-related endometrial carcinogenesis in recombinant mice. Lab Invest, 2006. 86(3): p. 286-96.

[4]. Hewitt, S.C. and K.S. Korach, Estrogenic activity of bisphenol A and 2,2-bis(p-hydroxyphenyl)-1,1,1-trichloroethane (HPTE) demonstrated in mouse uterine gene profiles. Environ Health Perspect, 2011. 119(1): p. 63-70.

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