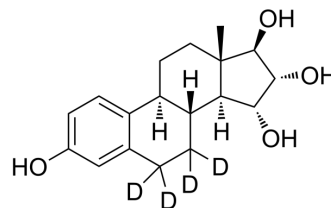


## Estetrol-d<sub>4</sub>

<b>Cat. No.:</b>	HY-15731S		
<b>Molecular Formula:</b>	C <sub>18</sub> H <sub>20</sub> D <sub>4</sub> O <sub>4</sub>		
<b>Molecular Weight:</b>	308.41		
<b>Target:</b>	Estrogen Receptor/ERR; Endogenous Metabolite; Isotope-Labeled Compounds		
<b>Pathway:</b>	Vitamin D Related/Nuclear Receptor; Metabolic Enzyme/Protease; Others		
<b>Storage:</b>	Powder	-20°C	3 years
	In solvent	-80°C	6 months
		-20°C	1 month



### SOLVENT & SOLUBILITY

#### In Vitro

DMSO : 100 mg/mL (324.24 mM; Need ultrasonic)

Concentration	Mass			
	1 mg	5 mg	10 mg	
1 mM	3.2424 mL	16.2122 mL	32.4244 mL	
5 mM	0.6485 mL	3.2424 mL	6.4849 mL	
10 mM	0.3242 mL	1.6212 mL	3.2424 mL	

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

### BIOLOGICAL ACTIVITY

#### Description

Estetrol-d<sub>4</sub> is the deuterium labeled Estetrol. Estetrol, a natural estrogen synthesized exclusively during pregnancy by the human fetal liver, is a selective nuclear estrogen receptor modulator. Estetrol exerts estrogenic actions on the endometrium or the central nervous system but presents antagonistic effects on the breast[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<sup>[1]</sup>.

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]. Valéra MC, et al. Effect of estetrol, a selective nuclear estrogen receptor modulator, in mouse models of arterial and venous thrombosis. *Mol Cell Endocrinol*. 2018 Dec 5;477:132-139.

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

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