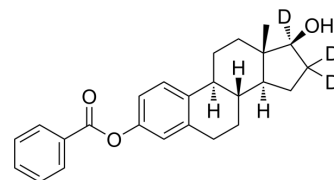


## Estradiol benzoate-d<sub>3</sub>

<b>Cat. No.:</b>	HY-B1192S		
<b>CAS No.:</b>	1192354-74-7		
<b>Molecular Formula:</b>	C <sub>25</sub> H <sub>25</sub> D <sub>3</sub> O <sub>3</sub>		
<b>Molecular Weight:</b>	379.51		
<b>Target:</b>	Estrogen Receptor/ERR		
<b>Pathway:</b>	Vitamin D Related/Nuclear Receptor		
<b>Storage:</b>	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



### SOLVENT & SOLUBILITY

#### In Vitro

DMSO : 100 mg/mL (263.50 mM; Need ultrasonic)  
 H2O : 0.1 mg/mL (0.26 mM; Need ultrasonic)

Concentration	Mass		
	1 mg	5 mg	10 mg
<b>1 mM</b>	2.6350 mL	13.1749 mL	26.3498 mL
<b>5 mM</b>	0.5270 mL	2.6350 mL	5.2700 mL
<b>10 mM</b>	0.2635 mL	1.3175 mL	2.6350 mL

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

### BIOLOGICAL ACTIVITY

#### Description

Estradiol benzoate-d<sub>3</sub> is the deuterium labeled Estradiol benzoate. Estradiol Benzoate (β-Estradiol 3-benzoate), a proagent of estradiol, acts as a steroid sex hormone. It exhibits mild anabolic and metabolic properties, and increases blood coagulability[1][2][3][4].

#### 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.

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[2]. Estradiol benzoate

[3]. García-Gómez E, et al. Role of sex steroid hormones in bacterial-host interactions. Biomed Res Int. 2013;2013:928290.

[4]. Zovko M, et al. Macromolecular prodrugs XI. Synthesis and characterization of polymer-estradiol conjugate. Int J Pharm. 2004 Nov 5;285(1-2):35-41.

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

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