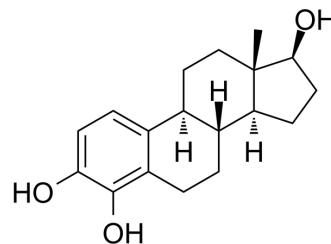


## 4-Hydroxyestradiol

<b>Cat. No.:</b>	HY-N10403		
<b>CAS No.:</b>	5976-61-4		
<b>Molecular Formula:</b>	C <sub>18</sub> H <sub>24</sub> O <sub>3</sub>		
<b>Molecular Weight:</b>	288.38		
<b>Target:</b>	Drug Metabolite; Endogenous Metabolite		
<b>Pathway:</b>	Metabolic Enzyme/Protease		
<b>Storage:</b>	Powder	-20°C	3 years
	In solvent	-80°C	6 months
		-20°C	1 month



### SOLVENT & SOLUBILITY

#### In Vitro

DMSO : 25 mg/mL (86.69 mM; Need ultrasonic and warming)

Concentration	Mass		
	1 mg	5 mg	10 mg
1 mM	3.4676 mL	17.3382 mL	34.6765 mL
5 mM	0.6935 mL	3.4676 mL	6.9353 mL
10 mM	0.3468 mL	1.7338 mL	3.4676 mL

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

### BIOLOGICAL ACTIVITY

#### Description

4-Hydroxyestradiol (4-Hydroxy-17β-estradiol) is an endogenous metabolite of Estradiol (HY-B0141). 4-Hydroxyestradiol is carcinogenic and shows mutagenic activity in breast epithelial cells. 4-Hydroxyestradiol inhibits the binding of Estradiol to the estrogen receptor in a competitive manner, with a K<sub>i</sub> of 0.48 nM<sup>[1][2]</sup>.

### REFERENCES

[1]. Fernandez SV, et al. Estradiol and its metabolites 4-hydroxyestradiol and 2-hydroxyestradiol induce mutations in human breast epithelial cells. *Int J Cancer*. 2006 Apr 15;118(8):1862-8. doi: 10.1002/ijc.21590.

[2]. Van Aswegen CH, et al. Binding of 2-hydroxyestradiol and 4-hydroxyestradiol to estrogen receptors from human breast cancers. *J Steroid Biochem*. 1989 Apr;32(4):485-92.

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

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