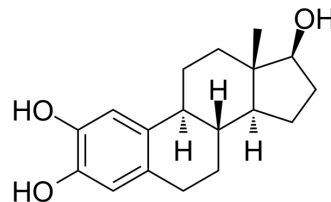


2-Hydroxyestradiol

Cat. No.:	HY-124489
CAS No.:	362-05-0
Molecular Formula:	C ₁₈ H ₂₄ O ₃
Molecular Weight:	288.38
Target:	Others
Pathway:	Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	
Description	2-Hydroxyestradiol, a metabolite of 17β-estradiol with minimal estrogenic activity, possesses antioxidant effects and reacts with DNA to form stable adducts and exerts genotoxicity ^{[1][3]} .
In Vitro	2-Hydroxyestradiol induces phenotypical changes indicative of neoplastic transformation ^[1] . 2-Hydroxyestradiol (2-OHE ₂) is capable of in vitro transforming a HBEC, MCF-10F cell line, that is estrogen receptor-α (ERα) negative and ERβ positive ^[1] . 2-Hydroxyestradiol induces oxidative DNA damage and apoptosis in human mammary epithelial cells ^[3] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	2-Hydroxyestradiol attenuated the development of obesity and improved endothelial function, decreased nephropathy, decreased the severity of diabetes, lowered arterial blood pressure, and reduced plasma cholesterol ^[2] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

- [1]. C H Van Aswegen, 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.
- [2]. S P Tofovic, et al. 2-Hydroxyestradiol attenuates the development of obesity, the metabolic syndrome, and vascular and renal dysfunction in obese ZSF1 rats. *J Pharmacol Exp Ther.* 2001 Dec;299(3):973-7.
- [3]. Yeon-Jin Hurh, et al. 2-Hydroxyestradiol induces oxidative DNA damage and apoptosis in human mammary epithelial cells. *J Toxicol Environ Health A.* 2004 Dec;67(23-24):1939-53.

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