Estrone

Cat. No.: HY-B0234

CAS No.: 53-16-7

Molecular Formula: $C_{18}H_{22}O_2$

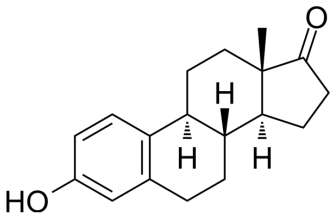
Molecular Weight: 270.37

Target: Estrogen Receptor/ERR; Endogenous Metabolite

Pathway: Vitamin D Related/Nuclear Receptor; Metabolic Enzyme/Protease

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	2 years
	-20°C	1 year



SOLVENT & SOLUBILITY

In Vitro

DMSO : 25 mg/mL (92.47 mM; ultrasonic and warming and heat to 60°C)

H_2O : < 0.1 mg/mL (ultrasonic) (insoluble)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	3.6986 mL	18.4932 mL	36.9864 mL
5 mM	0.7397 mL	3.6986 mL	7.3973 mL
10 mM	0.3699 mL	1.8493 mL	3.6986 mL

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

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: 2.5 mg/mL (9.25 mM); Suspended solution; Need ultrasonic
2. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (9.25 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Estrone (E1) is a natural estrogenic hormone. Estrone is the main representative of the endogenous estrogens and is produced by several tissues, especially adipose tissue. Estrone is the result of the process of aromatization of androstenedione that occurs in fat cells[1][2].

IC_{50} & Target

Human Endogenous Metabolite

In Vitro

Estrone is the main endogenous estrogen in postmenopausal women[2].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- Biosens Bioelectron. 12 July 2022, 114548.
- Int Immunopharmacol. 2020 Jan;78:105937.
- J Cell Mol Med. 2020 Dec;24(23):13775-13788.

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REFERENCES

[1]. Caupos E, et al. Photodegradation of estrone enhanced by dissolved organic matter under simulated sunlight. Water Res. 2011;45(11):3341-3350.

[2]. de Padua Mansur A, et al. Long-term prospective study of the influence of estrone levels on events in postmenopausal women with or at high risk for coronary artery disease. ScientificWorldJournal. 2012;2012:363595.

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