Estrone sulfate sodium

Cat. No.: HY-113293B

CAS No.: 438-67-5

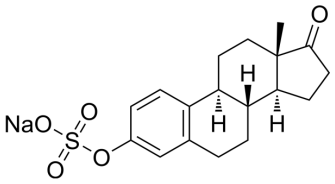
Molecular Formula: $C_{18}H_{21}NaO_5S$

Molecular Weight: 372.41

Target: Endogenous Metabolite; Estrogen Receptor/ERR

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

Storage: 4°C, sealed storage, away from moisture
* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 25 mg/mL (67.13 mM; ultrasonic and warming and heat to 60°C)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	2.6852 mL	13.4261 mL	26.8521 mL
	5 mM	0.5370 mL	2.6852 mL	5.3704 mL
	10 mM	0.2685 mL	1.3426 mL	2.6852 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 (6.71 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (6.71 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (6.71 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Estrone sulfate, a biologically inactive form of estrogen, is a major circulating plasma estrogen that is converted into the biologically active estrogen, estrone (E1) by steroid sulfatase (STS). Estrone sulfate can be used for the research of breast cancer[1][2].

IC_{50} & Target

Human Endogenous Metabolite

In Vitro

T47D cells are stably transfected with SOAT and incubated under increasing concentrations of Estrone sulfate (HY-113293) and Estradiol (HY-B0141) at physiologically relevant concentrations. Cell proliferation is significantly increased by 1 nM estradiol as well as by Estrone sulfate with EC50 of 2.2 nM[3].

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

CUSTOMER VALIDATION

- Cell Res. 2023 Sep 6.

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REFERENCES

[1]. Nakamura Y, et al. Steroid sulfatase and estrogen sulfotransferase in the atherosclerotic human aorta. Am J Pathol. 2003;163(4):1329-1339.

[2]. Duncan L, et al. Inhibition of estrone sulfatase activity by estrone-3-methylthiophosphonate: a potential therapeutic agent in breast cancer. Cancer Res. 1993;53(2):298-303.

[3]. Karakus E, et al. Estrone-3-Sulfate Stimulates the Proliferation of T47D Breast Cancer Cells Stably Transfected With the Sodium-Dependent Organic Anion Transporter SOAT (SLC10A6). Front Pharmacol. 2018;9:941. Published 2018 Aug 21.

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