

Product Data Sheet

Product Name: 16 α -hydroxy Estrone

Cat. No.: GC41950

Chemical Properties

Cas. No. 566-76-7

SMILES O=C1[C@H](O)C[C@@]2([H])[C@]3([H])CCC4=CC(O)=CC=C4[C@@]3([H])CC[C@@]21C

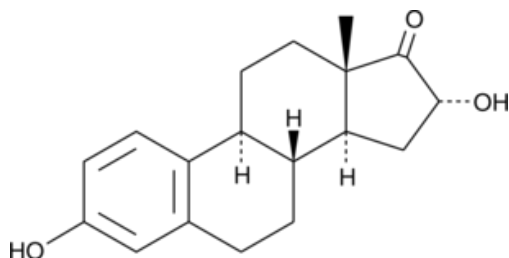
Formula C₁₈H₂₂O₃ M.Wt 286.37

Solubility DMF: 30 mg/ml, DMF:PBS (pH 7.2) (1:5): 0.15 mg/ml, DMSO: 20 mg/ml Storage Store at -20°C

General tips For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution: ship with blue ice. All other available sizes: ship with RT, or blue ice upon request.

Structure



Background

The naturally-occurring estrogens are estrone, estradiol, and estriol. 16 α -hydroxy Estrone (16 α -OHE1) is a hydroxylated metabolite of E1 as well as an interconversion product with E2. E1 is 16 α -hydroxylated by cytochrome P450 (CYP) isoforms, including CYP1A1, CYP3A5, CYP3A4, and CYP3A7, with CYP3A5 being breast-specific. 16 α -OHE1 is sulphatized or glucuronidated before excretion. It is increased in rheumatoid arthritis and decreased by physical activity. Unlike the parent estrogens and other hydroxylated metabolites of E1, 16 α -OHE1 binds covalently and persistently activates estrogen receptors. In addition, this metabolite increases cell proliferation and does not suppress TNF- α secretion, whereas other estrogen metabolites are not pro-proliferative and have marked effects on TNF- α secretion. The levels of 16 α -OHE1 are increased in some forms of hormone therapy. Because hormone therapy increases breast cancer risk, 16 α -OHE1 has been implicated as

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

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a risk factor for breast cancer, although supportive data remains elusive.

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