

Product Data Sheet

Product Name: Estrone-d2

Cat. No.: GC45452

Chemical Properties

Cas. No. 350820-16-5

SMILES O=C1CC[C@@]2([H])[C@]3([H])CCC4=C([2H])C(O)=C([2H])C=C4[C@@]3([H])CC[C@@]21C

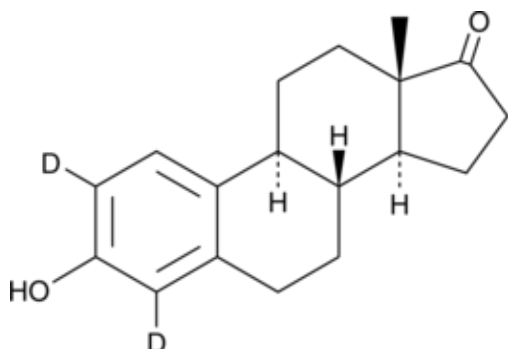
Formula C₁₈H₂₀D₂O₂ M.Wt 272.4

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

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 size: ship with RT, or blue ice upon request.

Structure



Background

Estrone-d2 is intended for use as an internal standard for the quantification of estrone by GC- or LC-MS. Estrone is one of the three naturally occurring estrogens, the others being estradiol and estriol. Estrone is synthesized from androstenedione by the aromatase enzyme system in the ovaries and placenta, and is also synthesized from estradiol by 17-hydroxy steroid dehydrogenase in the liver.^{1,2} Serum concentrations of estrone in premenopausal women fluctuate according to the menstrual cycle and becomes the most predominant estrogen in postmenopausal women.¹ The binding affinities of estrone to the estrogen receptors α and β are approximately 60% and 37% relative to estradiol.¹

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

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References

1. Gruber, C.J., Tschugguel, W., Schneeberger, C., et al. Production and actions of estrogens. New England Journal of Medicine 346(5), 340-352 (2002).

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