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DATASHEET

17 α -Estradiol

Product overview

Name	17 α -Estradiol
Cat No	HB2493
Alternative names	Estradiol Alfatradiol EST
Biological action	Other
Purity	>98%
Description	Estrogen receptor (ER) ligand.

Biological Data

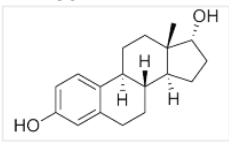
Biological description Endogenous estrogen receptor (ER) ligand (K_i values are 0.2 and 1.2 nM at ER α and ER β respectively). Shows antioxidant, anti-neurodegenerative and neuroprotective effects.

This is a research use only product, exclusively for biomedical research use at verified research organizations. It is not intended for human or veterinary use.

Solubility & Handling

Storage instructions Room temperature
Solubility overview Soluble in DMSO (100 mM), and in ethanol (100 mM)
Important This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use.

Chemical Data

Chemical name	(17 α)-Estra-1,3,5(10)-triene-3,17-diol
Molecular Weight	272.38
Chemical structure	
Molecular Formula	C ₁₈ H ₂₄ O ₂
CAS Number	57-91-0
PubChem identifier	68570
SMILES	[H][C@@]23CCC1=CC(O)=CC=C1[C@]([H])2CC[C@@]4(C)[C@]([H])3CC[C@H]4O
InChi	InChI=1S/C18H24O2/c1-18-9-8-14-13-5-3-12(19)10-11(13)2-4-15(14)16(18)6-7-17(18)20/h3,5,10,14-17,19-20H,2,4,6-9H2,1H3/t14-,15-,16+,17-,18+/m1/s1
InChiKey	VOXZDWNPVJITMN-SFFUCWETSA-N
MDL number	MFCD00064144
Appearance	White solid

References

[Acarbose, 17- \$\alpha\$ -estradiol, and nordihydroguaiaretic acid extend mouse lifespan preferentially in males.](#)

Harrison DE *et al* (2014) *Aging Cell* 13(2)

PubMedID [24245565](#)

Effects of 17 beta-estradiol and its isomer 17 alpha-estradiol on learning in rats with chronic cholinergic deficiency in the brain.

Lermontova NN *et al* (2000) *Bull Exp Biol Med* 129(5)

PubMedID [10977945](#)

17 alpha-estradiol exerts neuroprotective effects on SK-N-SH cells.

Green PS *et al* (1997) *J Neurosci* 17(2)

PubMedID [8987774](#)

Comparison of the ligand binding specificity and transcript tissue distribution of estrogen receptors alpha and beta.

Kuiper GG *et al* (1997) *Endocrinology* 138(3)

PubMedID [9048584](#)
