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DATASHEET

17 β -Estradiol

Product overview

Name	17 β -Estradiol
Cat No	HB2494
Description	Estrogen receptor (ER) agonist
Alternative names	Estradiol E2
Biological action	Agonist
Purity	>98%

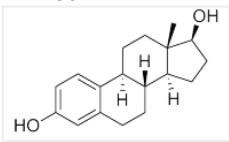
Biological Data

Biological description	Estrogen receptor (ER) agonist (K_i values are 0.13 and 0.12 nM at ER α and ER β respectively). Also shows activity at GPR30 receptors (K_i = 6 nM). Endogenous hormone. Shows neuroprotective and antioxidant effects.
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Solubility & Handling

Storage instructions	Room temperature
Solubility overview	Soluble in DMSO (100 mM) and in ethanol (75 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	(8R,9S,13S,14S,17S)-13-methyl-6,7,8,9,11,12,14,15,16,17-decahydrocyclopenta[a]phenanthrene-3,17-diol
Molecular Weight	272.38
Chemical structure	
Molecular Formula	C ₁₈ H ₂₄ O ₂
CAS Number	50-28-2
PubChem identifier	5757
SMILES	<chem>C[C@]12CC[C@H]3[C@H]([C@@H]1CC[C@@H]2O)CCC4=C3C=CC(=C4)O</chem>
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-ZBRFXRBCSA-N
MDL number	MFCD00003693

References

17-beta estradiol protects neurons from oxidative stress-induced cell death in vitro.

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Identity of an estrogen membrane receptor coupled to a G protein in human breast cancer cells.

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

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The ins and outs of GPR30: a transmembrane estrogen receptor.

Prossnitz ER *et al* (2008) *J Steroid Biochem Mol Biol* 109(3-5)

PubMedID [18406603](#)
