

**Product Name:**  $\alpha$ -Estradiol

**Catalog No.:** 2823

**Batch No.:** 3

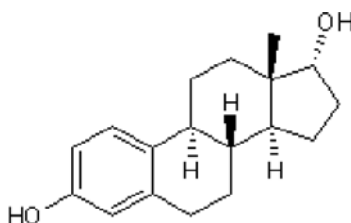
CAS Number: 57-91-0

EC Number: 200-354-8

IUPAC Name: (17 $\alpha$ )-Estra-1,3,5(10)-triene-3,17-diol

**1. PHYSICAL AND CHEMICAL PROPERTIES**

**Batch Molecular Formula:** C<sub>18</sub>H<sub>24</sub>O<sub>2</sub>  
**Batch Molecular Weight:** 272.38  
**Physical Appearance:** White solid  
**Solubility:** DMSO to 100 mM  
 ethanol to 100 mM  
**Storage:** Store at RT  
**Batch Molecular Structure:**



**2. ANALYTICAL DATA**

**HPLC:** Shows 98.5% purity  
**<sup>1</sup>H NMR:** Consistent with structure  
**Mass Spectrum:** Consistent with structure  
**Optical Rotation:** [ $\alpha$ ]<sub>D</sub> = +50 (Concentration = 0.9, Solvent = 1,4-Dioxane)  
**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	79.37	8.88	
Found	79.68	9.07	

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

**Product Name:**  $\alpha$ -Estradiol

**Catalog No.:** 2823

**Batch No.:** 3

CAS Number: 57-91-0

EC Number: 200-354-8

IUPAC Name: (17 $\alpha$ )-Estra-1,3,5(10)-triene-3,17-diol

**Description:**

Endogenous estrogen receptor ligand ( $K_i$  values are 0.2 and 1.2 nM for ER $\alpha$  and ER $\beta$  receptors respectively).  $\beta$ -Estradiol also available.

**Physical and Chemical Properties:**

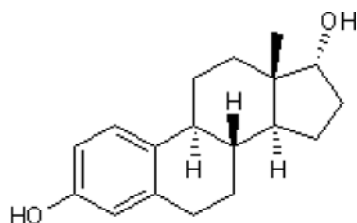
Batch Molecular Formula: C<sub>18</sub>H<sub>24</sub>O<sub>2</sub>

Batch Molecular Weight: 272.38

Physical Appearance: White solid

**Minimum Purity:** >96%

**Batch Molecular Structure:**



**Storage:** Store at RT

CAUTION - This product is light sensitive and we recommend that the solid material and any solutions obtained are protected from exposure to light.

**Solubility & Usage Info:**

DMSO to 100 mM

ethanol to 100 mM

**Stability and Solubility Advice:**

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

**SOLIDS:** Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

**SOLUTIONS:** We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

**References:**

**Toran-Allerand et al** (2002) ER-X: a novel, plasma membrane-associated, putative estrogen receptor that is regulated during development and after ischemic brain injury. *J.Neurosci.* **22** 8391. PMID: 12351713.

**Kuiper et al** (1997) Comparison of the ligand binding specificity and transcript tissue distribution of estrogen receptors  $\alpha$  and  $\beta$ . *Endocrinology* **138** 863. PMID: 9048584.

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

**bio-techne.com**

info@bio-techne.com

techsupport@bio-techne.com

**North America**

Tel: (800) 343 7475

**China**

info.cn@bio-techne.com

Tel: +86 (21) 52380373

**Europe Middle East Africa**

Tel: +44 (0)1235 529449

**Rest of World**

www.tocris.com/distributors

Tel:+1 612 379 2956