

Product Name: ICI 182,780

Catalog No.: 1047

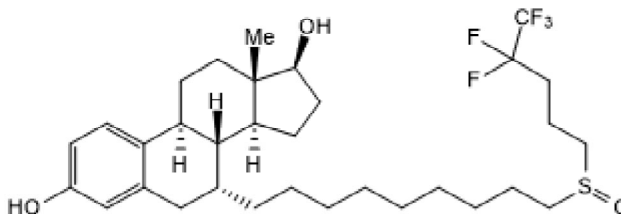
Batch No.: 22

CAS Number: 129453-61-8

IUPAC Name: 7 α ,17 β -[9-[4,4,5,5,5-Pentafluoropentyl)sulfinyl]nonyl]estra-1,3,5(10)-triene-3,17-diol

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₃₂H₄₇F₅O₃S
Batch Molecular Weight: 606.77
Physical Appearance: White solid
Solubility: ethanol to 50 mM
DMSO to 100 mM
Storage: Store at RT
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.7% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	63.34	7.81	
Found	63.76	7.66	

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

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Description:

ICI 182,780 is a high affinity estrogen receptor antagonist (IC₅₀ = 0.29 nM), devoid of any partial agonism both in vitro and in vivo. ICI 182,780 is a high affinity agonist at the membrane estrogen receptor GPER. ICI 182,780 inhibits MCF-7 human breast cancer cell growth in vitro and shows antitumor activity in mice models. ICI 182,780 penetrates the blood-brain-barrier and has neuronal functional effects in vivo.

Physical and Chemical Properties:

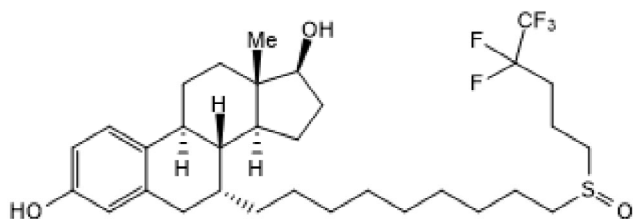
Batch Molecular Formula: C₃₂H₄₇F₅O₃S

Batch Molecular Weight: 606.77

Physical Appearance: White solid

Minimum Purity: ≥99%

Batch Molecular Structure:



Storage: Store at RT

Solubility & Usage Info:

ethanol to 50 mM
DMSO to 100 mM

When purchased as a 1mg unit, this product is supplied in lyophilized form. It may appear as a solid, gel or film and be very hard to visualize. Solutions should be made by adding solvent directly to the vial. The vial should then be vortexed vigorously to ensure the product has completely dissolved.

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. *Unless contradicted by product-specific protocols or instructions, our standard recommendations apply:

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:

Alfinito et al (2008) ICI 182,780 penetrates brain and hypothalamic tissue and has functional effects in the brain after systemic dosing. *Endocrinology* **149** 5219. PMID: 18599545.

Thomas et al (2005) Identity of an estrogen membrane receptor coupled to a G protein in human breast cancer cells. *Endocrinology* **146** 624. PMID: 15539556.

Howell et al (2000) ICI 182,780 (Faslodex™): Development of a novel, "pure" antiestrogen. *Cancer* **89** 817. PMID: 10951345.

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