

Product Name: DPN

Catalog No.: 1494

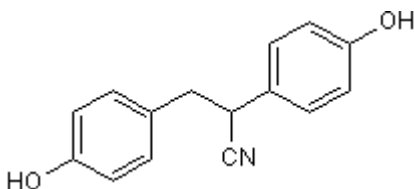
Batch No.: 7

CAS Number: 1428-67-7

IUPAC Name: 2,3-bis(4-Hydroxyphenyl)-propionitrile

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₅H₁₃NO₂·¼H₂O
Batch Molecular Weight: 243.77
Physical Appearance: Off-white solid
Solubility: 1eq. NaOH to 30 mM
 ethanol to 100 mM
 DMSO to 100 mM
Storage: Desiccate at -20°C
Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.37 (Ethyl acetate:Hexane [1:1])
HPLC: Shows 99.8% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	73.91	5.58	5.75
Found	74.21	5.43	5.95

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

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Description:

Highly potent estrogen ER β receptor agonist with a 70-fold selectivity over ER α (EC₅₀ values are 0.85 and 66 nM respectively). Relaxes mesenteric arteries in vitro. Shown to regulate expression of GluR1, GluR2 and GluR3 in rat hippocampus.

Physical and Chemical Properties:

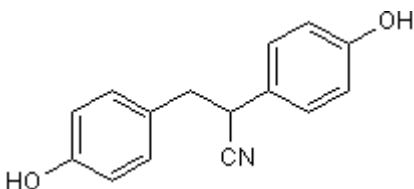
Batch Molecular Formula: C₁₅H₁₃NO₂ · ¼H₂O

Batch Molecular Weight: 243.77

Physical Appearance: Off-white solid

Minimum Purity: >99%

Batch Molecular Structure:



References:

Meyers et al (2001) Estrogen receptor- β potency-selective ligands: structure-activity relationship studies of diarylpropionitriles and their acetylene and polar analogues. *J.Med.Chem.* **44** 4230. PMID: 11708925.

Montgomery et al (2003) Acute effects of oestrogen receptor subtype-specific agonists on vascular contractility. *Br.J.Pharmacol.* **139** 1249. PMID: 12890703.

Harrington et al (2003) Activities of estrogen receptor alpha- and beta-selective ligands at diverse estrogen responsive gene sites mediating transactivation or transrepression. *Mol.Cell.Endocrinol.* **206** 13. PMID: 12943986.

Waters et al (2009) Estrogen receptor alpha and beta specific agonists regulate expression of synaptic proteins in rat hippocampus. *Brain Res.* **1290** 1. PMID: 19596275.

Storage: Desiccate at -20°C

Solubility & Usage Info:

1eq. NaOH to 30 mM
ethanol to 100 mM
DMSO 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.

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