

Product Name: (R)-DPN

Catalog No.: 4494

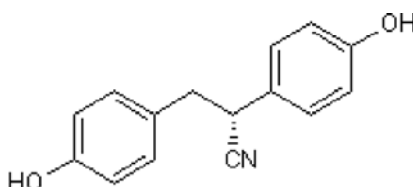
Batch No.: 1

CAS Number: 524047-78-7

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

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₅H₁₃NO₂
Batch Molecular Weight: 239.27
Physical Appearance: White solid
Solubility: 1eq. NaOH to 25 mM
DMSO to 100 mM
ethanol to 100 mM
Storage: Store at -20°C
Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.3 (Dichloromethane:Ethyl acetate:Petrol [3:2:5])
HPLC: Shows 100% purity
Chiral HPLC: Shows >98.9% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure
Optical Rotation: [α]_D = -9.2 (Concentration = 1.1, Solvent = Methanol)
Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	75.3	5.48	5.85
Found	75.13	5.53	5.97

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

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Batch No.: 1

CAS Number: 524047-78-7

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

Description:

Enantiomer of DPN (Cat. No. 1494). Displays higher affinity for estrogen receptor (ER) β over ER α (K_i values are 1.82 and 147 nM respectively).

Physical and Chemical Properties:

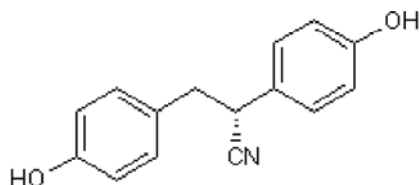
Batch Molecular Formula: C₁₅H₁₃NO₂

Batch Molecular Weight: 239.27

Physical Appearance: White solid

Minimum Purity: >98%

Batch Molecular Structure:



Storage: Store at -20°C

Solubility & Usage Info:

1eq. NaOH to 25 mM

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:

Carroll et al (2011) Diarylpropionitrile (DPN) enantiomers: synthesis and evaluation of estrogen receptor β -selective ligands. *J.Med.Chem.* **55** 528. PMID: 22122563.

Weiser et al (2009) Estrogen receptor- β agonist diarylpropionitrile: biological activities of R- and S-enantiomers on behavior and hormonal response to stress. *Endocrinology* **150** 1817. PMID: 19074580.

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