

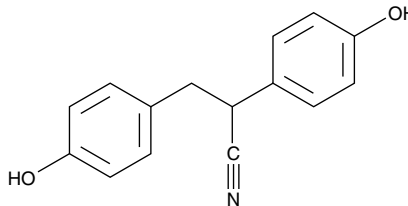
Product Information



2,3-bis(4-hydroxyphenyl) Propionitrile

Item No. 10008842

CAS Registry No.: 1428-67-7
Formal Name: 4-hydroxy- α -(4-hydroxyphenyl)-benzenepropanenitrile
Synonym: DPN
MF: C₁₅H₁₃NO₂
FW: 239.3
Purity: ≥98%
Stability: ≥2 years at -20°C
Supplied as: A crystalline solid
UV/Vis.: λ_{max} : 230, 270 nm



Laboratory Procedures

For long term storage, we suggest that 2,3-bis(4-hydroxyphenyl) propionitrile (DPN) be stored as supplied at -20°C. It will be stable for at least two years.

DPN is supplied as a crystalline solid. A stock solution may be made by dissolving the DPN in an organic solvent purged with an inert gas. DPN is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of DPN in ethanol is approximately 20 mg/ml and is approximately 30 mg/ml in DMSO and DMF.

DPN is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, DPN should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. DPN has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

DPN is an estrogen receptor β (ER β) selective agonist. DPN exhibits a 70-fold higher relative binding affinity for ER β (18%) *versus* ER α (0.25 %), about 80-fold higher transcriptional potency (EC₅₀ = 0.85 nM *versus* 66 nM), and 170-fold higher relative potency (4.6% *versus* 0.025 %) in transcription assays.¹ Based on this selectivity, DPN is commonly used as a tool to evaluate the biological role of ER β .

Reference

1. Meyers, M.J., Sun, J., Carlson, K.E., *et al.* Estrogen receptors- β potency-selective ligands: Structure-activity relationship studies of diarylpropionitriles and their acetylene and polar analogus. *J. Med. Chem.* **44**, 4230-4251 (2001).

Related Products

For a list of related products please visit: www.caymanchem.com/catalog/10008842

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WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY; NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

MATERIAL SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Material Safety Data Sheet, which has been sent *via* email to your institution.

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