

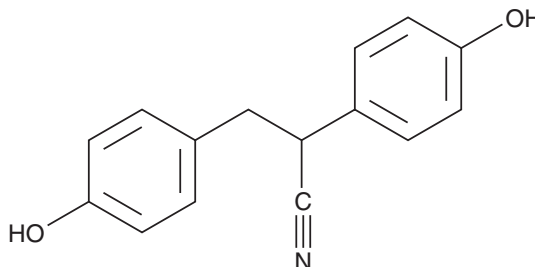
PRODUCT INFORMATION



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: \geq 98%
UV/Vis.: λ_{max} : 230, 270 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: \geq 4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

2,3-bis (4-Hydroxyphenyl) propionitrile (DPN) is supplied as a crystalline solid. A stock solution may be made by dissolving the DPN in the solvent of choice, which should be 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 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.

Description

DPN is an estrogen receptor b (ERb) selective agonist. DPN exhibits a 70-fold higher relative binding affinity for ERb (18%) versus ERa (0.25 %), about 80-fold higher transcriptional potency ($EC_{50} = 0.85$ 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 ERb.

Reference

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

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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