

Catalog # 10-2909

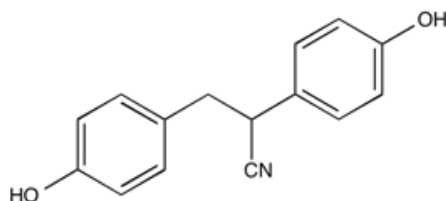
DPN

CAS# 1428-67-7

Diarylpropionitrile

2,3-bis(4-Hydroxyphenyl)-propionitrile

Lot # X101537



Potent estrogen ER β receptor agonist. Displays a 70-fold selectivity over ER α , EC₅₀ = 0.85 and 66 nM, respectively.¹ Regulates expression of GluR1, 2 and 3 in rat hippocampus.² Ameliorates portal hypertension in a carbon tetrachloride-induced liver cirrhosis rat model.³ Stimulates proliferation of androgen-independent prostate cancer cell line PC-3 via a novel pathway involving ER β -mediated activation of β -catenin.⁴ A useful tool for elucidating the biological function of ER β .⁵

- 1) Meyers et al. (2001), *Estrogen receptor-beta potency-selective ligands: structure-activity relationship studies of diarylpropionitriles and their acetylene and polar analogues*; J. Med. Chem., **44** 4230
- 2) Waters et al. (2009), *Estrogen receptor alpha and beta specific agonists regulate expression of synaptic proteins in rat hippocampus*; Brain Res., **1290** 1
- 3) Zhang et al. (2016), *Role of estrogen receptor beta selective agonist in ameliorating portal hypertension in rats with CC14-induced liver cirrhosis*; World J. Gastroenterol., **22** 4484
- 4) Lombardi et al. (2016), *Estrogen receptor beta (ER β) mediates expression of β -catenin and proliferation in prostate cancer cell line PC-3*; Mol. Cell. Endocrin. **430** 12
- 5) Harrington et al. (2003), *Activities of estrogen receptor alpha- and beta-selective ligands at diverse estrogen responsive gene sites mediating transactivation and transrepression*; Mol. Cell. Endocrinol., **206** 13

PHYSICAL DATA

Molecular Weight:	239.27
Molecular Formula:	C ₁₅ H ₁₃ NO ₂
Purity:	98% by TLC
	NMR: (Conforms)
Solubility:	Soluble in DMSO (up to 25 mg/ml) or in Ethanol (up to 20 mg/ml)
Physical Description:	Off-white solid
Storage and Stability:	Store as supplied desiccated at -20°C for up to 1 year from the date of purchase. Solutions in DMSO or ethanol may be stored at -20°C for up to 1 month.

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