



上海源叶生物科技有限公司
Shanghai yuanye Bio-Technology Co., Ltd
电话: 021-61312973 传真: 021-55068248
网址: www.shyuanye.com
邮箱: shyysw@sina.com

产品名称: **2,3-双(4-羟苯基)丙腈**
产品别名: **PN; Diarylpropionitrile**

生物活性:	
Description	DPN (Diarylpropionitrile) is a non-steroidal estrogen receptor β (ER β) selective ligand. IC50 value: Target: ER β ligand in vitro: Pre-treatment with 1-100 nM DPN significantly decreased neuronal cell death by increasing cell viability through a significant attenuation in the reactive oxygen species level, downregulation of pro-apoptotic activated caspase-3 and Bax, and upregulation of anti-apoptotic Bcl-2, thereby mitigating apoptotic morphological alterations. DPN pre-treatment decreased the expression levels of pro-inflammatory cytokines IL-1 β and IL-6 through attenuation of A β 1-42-induced phosphorylation of mitogen-activated protein kinases JNK and p38. In addition, DPN enhanced ERK1/2 and Akt phosphorylation depressed by A β 1-42 [1]. ER β was expressed in RAW264.7 cells, and DPN statistically significantly decreased LPS-induced RANTES production in RAW264.7 cells. Small interfering RNA targeting the ER β gene inhibited the effect of DPN on RANTES production. In addition, DPN inhibited nuclear translocation and phosphorylation of p65 by inhibiting I κ B degradation and thus prohibited the activation of nuclear factor κ B (NF- κ B) [3]. in vivo: DPN treatment during EAE did not attenuate demyelination, only partially improved axon conduction, and did not activate the phosphatidylinositol 3-kinase/serine-threonine-specific protein kinase/mammalian target of rapamycin signaling pathway in ER β CKO mice [2].
Solvent&Solubility	<i>In Vitro:</i> H ₂ O : < 0.1 mg/mL (insoluble)
References	[1]. Suwanna N, et al. Neuroprotective effects of diarylpropionitrile against β -amyloid peptide-induced neurotoxicity in rat cultured cortical neurons. <i>Neurosci Lett</i> . 2014 Aug 22;578:44-9. [2]. Khalaj AJ, et al. Estrogen receptor (ER) β expression in oligodendrocytes is required for attenuation of clinical disease by an ER β ligand. <i>Proc Natl Acad Sci U S A</i> . 2013 Nov 19;110(47):19125-30. [3]. Huang SY, et al. Estrogen receptor β agonist diarylpropionitrile inhibits lipopolysaccharide-induced regulated on activation normal T cell expressed and secreted (RANTES) production in macrophages by repressing nuclear factor κ B activation. <i>Fertil Steril</i> . 2013 Jul;100(1):234-40.