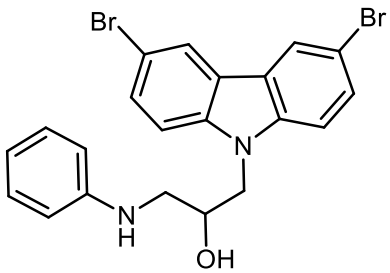
Catalog # 10-1150

P7C3

CAS# 301353-96-8

1-(3,6-Dibromo-9H-carbazol-9-yl)-3-(phenylamino)propan-2-ol

Lot # X101058



P7C3 exerts proneurogenic activity by protecting newborn neurons from apoptosis. Prolonged administration to aged rats impedes neuronal death and preserves cognitive capacity.[1] Delays disease progression in G93A-SOD2 mutant mouse model of amyotrophic lateral sclerosis.[2] Blocks MPTP-mediated cell death of dopaminergic neurons in the substantia nigra of adult mice, a model of Parkinson disease.[3] Restores hippocampal neurogenesis in a mouse model of Down Syndrome.[4] The mechanism of action involves activation of nicotinamide phosphoribosyltransferase (NAMPT) with concomitant increase of intracellular levels of NAD.[5] Active *in vivo*.

1) Pieper *et al*. (2010), *Discovery of a proneurogenic, neuroprotective chemical*; Cell, **142** 39

2) Tesla *et al*. (2012), *Neuroprotective efficacy of aminopropyl carbazoles in a mouse model of amyotrophic lateral sclerosis*; Proc. Natl. Acad. Sci. USA, **109** 17016

3) De Jesus-Cortes *et al*. (2012), *Neuroprotective efficacy of aminopropyl carbazoles in a mouse model of Parkinson disease*; Proc. Natl. Acad. Sci. USA, **109** 17010

4) Latchney *et al*. (2015), *Chronic P7C3 treatment restores hippocampal neurogenesis in the Ts65Dn mouse model of Down Syndrome*; Neurosci. Lett. **591** 86

5) Wang *et al*. (2014), *P7C3 Neuroprotective Chemicals Function by Activating the Rate-Limiting Enzyme in NAD Salvage*; Cell, **158** 1324

PHYSICAL DATA

Molecular Weight:	474.20
Molecular Formula:	$C_{21}H_{18}Br_2N_2O$
Purity:	98% by TLC
	NMR: (Conforms)
Solubility:	DMSO (up to 40 mg/ml)
Physical Description:	Off-white solid
Storage and Stability:	Store as supplied desiccated at -20°C for up to 2 years from the date of purchase. Solutions in DMSO may be stored at -20°C for up to 2 months.

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