

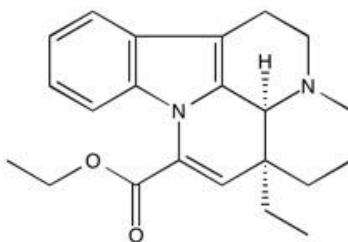
Catalog # 10-1126

Vinpocetine

CAS# 42971-09-5

(3 α ,16 α)-Eburnamenine-14-carboxylic acid ethyl ester

Lot # X101159



Phosphodiesterase PDE1 inhibitor (IC_{50} =21 μ M).¹ Also blocks voltage-gated Na⁺ channels, IC_{50} =44.2 μ M (potency similar to phenytoin), a mechanism which may contribute to its neuroprotective and anticonvulsant activity.² It reduces inflammatory IL-1 β and TNF- α expression in rat hippocampus.³ Displays beneficial effects in a rat model of cerebral ischemia-reperfusion injury.⁴ Exerts neuroprotective effects by suppressing microglial inflammation.⁵

- 1) Hagiwara *et al.* (1984), *Effects of vinpocetine on cyclic nucleotide metabolism in vascular smooth muscle*; *Biochem. Pharmacol.*, **33** 453
- 2) Molnar and Erdo (1995), *Vinpocetine is as potent as phenytoin to block voltage-gated Na⁺ channels in rat cortical neurons*; *Eur. J. Pharmacol.*, **273** 303
- 3) Gomez *et al.* (2014), *The anti-seizure drugs vinpocetine and carbamazepine, but not valproic acid, reduced inflammatory IL1 β and TNF- α expression in rat hippocampus*; *J. Neurochem.*, **130** 770
- 4) Wang *et al.* (2014), *Anti-inflammatory effects of vinpocetine on the functional expression of nuclear factor-kappa B and tumor necrosis factor-alpha in a rat model of cerebral ischemia-reperfusion injury*; *Neuro. Sci. Lett.*, **566** 247
- 5) Zhao *et al.* (2011), *TSPO-specific ligand vinpocetine exerts a neuroprotective effect by suppressing microglial inflammation*; *Glia Biol.*, **7** 187

PHYSICAL DATA

Molecular Weight:	350.45
Molecular Formula:	C ₂₂ H ₂₆ N ₂ O ₂
Purity:	98% by TLC
	NMR: (Conforms)
Solubility:	DMSO (up to 5 mg/ml), Ethanol (up to 15 mg/ml), or DMF (up to 3 mg/ml with warming)
Physical Description:	White solid
Storage and Stability:	Store as supplied, desiccated at room temperature for up to 1 year from the date of purchase. Solutions in DMSO, ethanol or DMF may be stored at -20°C for up to 3 months.

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