

**Catalog # 10-2471**

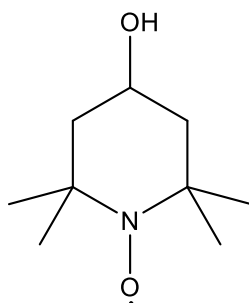
**TEMPOL**

CAS# 2226-96-2

4-Hydroxy-TEMPO

4-Hydroxy-2,2,6,6-tetramethylpiperidine-1-oxyl

Lot # X101851



Superoxide dismutase (SOD) mimetic. Displays protective effects in CNS<sup>1</sup> kidney<sup>2</sup> and radiation damage<sup>3</sup>. Inhibits superoxide anion-induced inflammatory pain in mice.<sup>4</sup> Blunts diabetes-induced upregulation of NADPH oxidase and ER stress in a rat model of diabetic nephropathy.<sup>5</sup> Cell permeable.

- 1) Lipman *et al.* (2006), *Neuroprotective effects of the stable nitroxide compound Tempol in 1-methyl-4-phenylpyridinium ion-induced neurotoxicity in the Nerve Growth Factor-differentiated model of pheochromocytoma PC12 cells*; Eur. J. Pharmacol., **549** 50
- 2) Guron *et al.* (2006), *Acute effects of the superoxide dismutase mimetic tempol on split kidney function in two-kidney one-clip hypertensive rats*; J. Hypertens., **24** 387
- 3) Samuni and Barenholz (1997), *Gamma-irradiation damage to liposomes differing in composition and their protection by nitroxides*; Free Radic. Biol. Med., **23** 972
- 4) Bernardy *et al.* (2017), *Tempol, a Superoxide Dismutase Mimetic Agent, Inhibits Superoxide Anion-Induced Inflammatory Pain in Mice*; Biomed. Res. Int., **2017** 9584819
- 5) De Blasio *et al.* (2017), *The superoxide dismutase mimetic tempol blunts diabetes-induced upregulation of NADPH oxidase and endoplasmic reticulum stress in a rat model of diabetic nephropathy*; Eur. J. Pharmacol., **807** 12

**PHYSICAL DATA**

Molecular Weight:	172.24
Molecular Formula:	C <sub>9</sub> H <sub>18</sub> NO <sub>2</sub>
Purity:	98% by GC
	NMR: (Conforms)
Solubility:	DMSO (up to 25 mg/ml) or Ethanol (up to 17 mg/ml)
Physical Description:	Orange solid
Storage and Stability:	Store as supplied desiccated at -20°C for up to 2 years 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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