

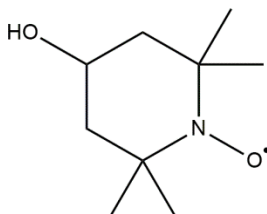
TEMPOL

01/21

ALTERNATE NAMES: 4-Hydroxy-2,2,6,6-tetramethyl-1-piperidinyloxy; TMPN; HyTEMPO; 4-Hydroxy-TEMPO; 1- λ^1 -oxidanyl-2,2,6,6-tetramethylpiperidin-4-ol

CATALOG #: B3100-1G 1 g
B3100-5G 5 g

STRUCTURE:



MOLECULAR FORMULA: C₉H₁₈NO₂

MOLECULAR WEIGHT: 172.24

CAS NUMBER: 2226-96-2

APPEARANCE: Orange powder

PURITY: ≥ 97%

SOLUBILITY: ~15 mg/ml in DMSO or Ethanol

DESCRIPTION: TEMPOL is a piperidine nitroxide and spin label with superoxide dismutase (SOD) mimetic activity. It is a membrane permeable, free radical scavenger. It inhibits lipid peroxidation induced by iron plus NADPH, iron plus ascorbate, and t-butylhydroperoxide, in rat liver microsomes with 50% inhibition values of 117 μ M, 61 μ M, and 381 μ M respectively. It reduces oxidative stress mediated renal dysfunction and injury in the rat. TEMPOL decreases proinflammatory cytokines (cytokine storm) and decreases platelet aggregation which may be useful in the treatment of COVID-19.

STORAGE TEMPERATURE: -20 °C. Store in the dark. Product is light sensitive. Protect from air. Store under desiccating conditions.

HANDLING: Do not take internally. Wear gloves and mask when handling the product! Avoid contact by all modes of exposure.

REFERENCES:

1. Nilsson, U.A., Olsson, L.I., Carlin, G., et al. Inhibition of lipid peroxidation by spin labels. Relationships between structure and function. *J. Biol. Chem.* 264(19), 11131-11135 (1989).
2. Proctor, P. Tempol Treatment of Covid-19. *Free Radical Biology and Medicine*; 159:S95 (2020).
3. Chatterjee, P. K., Cuzzocrea, S., Brown, P.A., et al. Tempol, a membrane-permeable radical scavenger, reduces oxidant stress-mediated renal dysfunction and injury in the rat. *58(2):658-73* (2000).
4. Patel, K., Chen, Y., Dennehy, K., et al. Acute antihypertensive action of nitroxides in the spontaneously hypertensive rat. *Am. J. Physiol. Regul. Integr. Comp. Physiol.* 290(1), R37-R43 (2006).

RELATED PRODUCTS:

Dexamethasone (Cat. No. 1042)
 Remdesivir (Cat. No. B2997)
 N-Acetyl-L-cysteine (Cat. No. B1813)
 (-)-Epigallocatechin gallate (Cat. No. 1841)
 Reduced Glutathione (GSH) (Cat. No. 1242)

DISCLAIMER: **FOR RESEARCH USE ONLY! Not to be used on humans.**