

Product Data Sheet

Product Name: Tempol-d17,15N

Cat. No.: GC72755

Chemical Properties

Cas. No. 90429-66-6

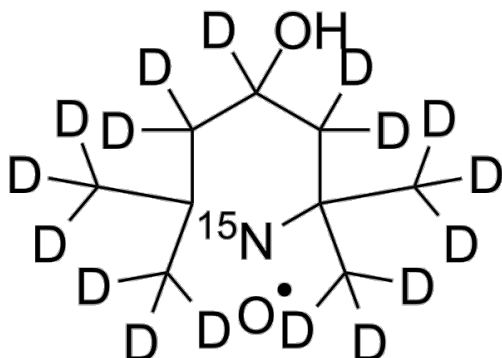
Formula $C_9HD_{17}N^{15}O_2$ M.Wt 190.34

Solubility Storage $-20^{\circ}C$

General tips For obtaining a higher solubility, please warm the tube at $37^{\circ}C$ and shake it in the ultrasonic bath for a while. Stock solution can be stored below $-20^{\circ}C$ for several months.

Shipping Condition Evaluation sample solution: ship with blue ice. All other available size: ship with RT, or blue ice upon request.

Structure



Background

Tempol-d17,15N is the deuterium labeled Tempol[1]. Tempol is a general superoxide dismutase (SOD)-mimetic agent that efficiently neutralizes reactive oxygen species (ROS)[2][3].

Stable heavy isotopes of hydrogen, carbon, and other elements have been incorporated into drug molecules, largely as tracers for quantitation during the drug development process. Deuteration has gained attention because of its potential to affect the pharmacokinetic and metabolic profiles of drugs[1].

Caution: Product has not been fully validated for medical applications. For research use only.

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References:

- [1]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. *Ann Pharmacother*. 2019 Feb;53(2):211-216.
- [2]. Vilar-Pereira G, et al. Resveratrol Reverses Functional Chagas Heart Disease in Mice. *PLoS Pathog*. 2016 Oct 27;12(10):e1005947.
- [3]. Chatterjee PK, et al. Tempol, a membrane-permeable radical scavenger, reduces oxidant stress-mediated renal dysfunction and injury in the rat. *Kidney Int*. 2000 Aug;58(2):658-73.

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