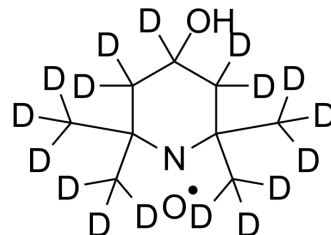


Tempol-d₁₇

Cat. No.:	HY-100561S1
CAS No.:	100326-46-3
Molecular Formula:	C ₉ HD ₁₇ NO ₂
Molecular Weight:	189
Target:	Autophagy; Reactive Oxygen Species
Pathway:	Autophagy; Immunology/Inflammation; Metabolic Enzyme/Protease; NF-κB
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Tempol-d ₁₇ is the deuterium labeled Tempol[1]. Tempol is a general superoxide dismutase (SOD)-mimetic agent that efficiently neutralizes reactive oxygen species (ROS)[2][3].
In Vitro	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] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

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.

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

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