

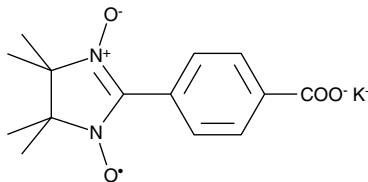
Product Information



Carboxy-PTIO (potassium salt)

Item No. 81540

CAS Registry No.: 148819-94-7
Formal Name: 2-(4-carboxyphenyl)-4,5-dihydro-4,4,5,5-tetramethyl-1H-imidazolyl-1-oxy-3-oxide, monopotassium salt
MF: C₁₄H₁₆N₂O₄ • K
FW: 315.4
Purity: ≥99%
Stability: ≥2 years at -20°C
Supplied as: A blue crystalline solid
UV/Vis.: λ_{max}: 232, 282, 368 nm



Laboratory Procedures

For long term storage, we suggest that Carboxy-PTIO (potassium salt) be stored as supplied at -20°C. It should be stable for at least two years.

Carboxy-PTIO (potassium salt) is supplied as a crystalline solid. A stock solution may be made by dissolving the carboxy-PTIO (potassium salt) in an organic solvent purged with an inert gas. Carboxy-PTIO (potassium salt) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of carboxy-PTIO (potassium salt) in these solvents is approximately 1.4 mg/ml.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of carboxy-PTIO (potassium salt) can be prepared by directly dissolving the crystalline compound in aqueous buffers. The solubility of carboxy-PTIO (potassium salt) in PBS (pH 7.2) is approximately 35 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Carboxy-PTIO is a nitric oxide (NO) scavenger. It reacts stoichiometrically with NO and can be used for EPR detection of NO.^{1,2}

References

1. Akaike, T., Yoshida, M., Miyamoto, Y., *et al.* Antagonistic action of imidazolineoxyl N-oxides against endothelium-derived relaxing factor/•NO through a radical reaction. *Biochemistry* **32**, 827-832 (1993).
2. Pfeiffer, S., Leopold, E., Hemmens, B., *et al.* Interference of carboxy-PTIO with nitric oxide- and peroxynitrite-mediated reactions. *Free Radic. Biol. Med.* **22**, 787-794 (1997).

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WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY. NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

MATERIAL SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Material Safety Data Sheet, which has been sent via email to your institution.

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Cayman Chemical Company makes **no warranty or guarantee** of any kind, whether written or oral, expressed or implied, including without limitation, any warranty of fitness for a particular purpose, suitability and merchantability, which extends beyond the description of the chemicals hereof. Cayman **warrants only** to the original customer that the material will meet our specifications at the time of delivery.

Cayman will carry out its delivery obligations with due care and skill. Thus, in no event will Cayman have **any obligation or liability**, whether in tort (including negligence) or in contract, for any direct, indirect, incidental or consequential damages, even if Cayman is informed about their possible existence.

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