

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

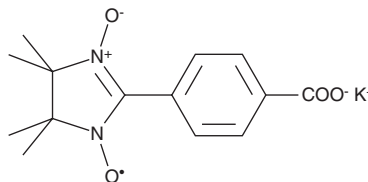
Purity: ≥99%

UV/Vis.: λ_{max}: 232, 282, 368 nm

Supplied as: A crystalline solid

Storage: -20°C

Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Carboxy-PTIO (potassium salt) is supplied as a crystalline solid. A stock solution may be made by dissolving the carboxy-PTIO (potassium salt) in the solvent of choice, which should be 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 1.6, 1.4, and 3.3 mg/ml, respectively.

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 solid 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.

Description

Carboxy-PTIO is a 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/ \cdot 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).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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