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-oxo-3-oxide, monopotassium salt
MF: C_{14}H_{16}N_{2}O_{4} \cdot K
FW: 315.4
Purity: \geq 99%
Stability: \geq 2 years at -20°C
Supplied as: A blue crystalline solid
UV/Vis.: \lambda_{\text{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

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For further details, please refer to our Warranty and Limitation of Remedy located on our website and in our catalog.