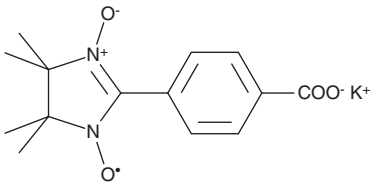
PRODUCT INFORMATION

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:	$C_{14}H_{16}N_2O_4 \bullet K$
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/·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).

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.**CAYMANCHEM**.COM