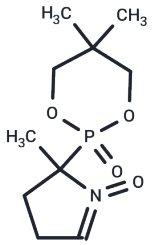
Data Sheet (Cat.No.T36501)

TargetMol

CYPMPO

Chemical Properties



CAS No. : 934182-09-9

Formula: C10H18NO4P

Molecular Weight: 247.23

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	CYPMPO is a free radical spin trap with excellent trapping capabilities toward hydroxyl and superoxide radicals in biological and chemical systems. Decay of the superoxide adduct of CYPMPO proceeds in an apparent first order fashion with half-lives of 15 and 51 minutes in a UV-illuminated hydrogen peroxide solution and a hypoxanthine/xanthine oxidase system, respectively. CYPMPO traps superoxide radicals generated by bovine neutrophils as effectively as DEPMPO.[1] The high melting point (126°C), low hygroscopic properties, and long shelf-life in aqueous solutions offer significant practical advantages for use of CYPMPO over DEPMPO and DMPO.
Targets(IC50)	Others,Reactive Oxygen Species

Solubility Information

Solubility	Ethanol: 25 mg/mL (101.12 mM),Sonication is recommended. DMF: 25 mg/mL (101.12 mM),Sonication is recommended. DMSO: 20 mg/mL (80.9 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	4.0448 mL	20.2241 mL	40.4482 mL
5 mM	0.809 mL	4.0448 mL	8.0896 mL
10 mM	0.4045 mL	2.0224 mL	4.0448 mL
50 mM	0.0809 mL	0.4045 mL	0.809 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Kamibayashi, M., Oowada, S., Kameda, H., et al. Synthesis and characterization of a practically better DEPMPO-type spin trap, 5-(2,2-dimethyl-1,3-propoxy cyclophosphoryl)-5-methyl-1-pyrroline N-oxide (CYPMPO). Free Radical Research 40(11), 1166-1172 (2006).

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