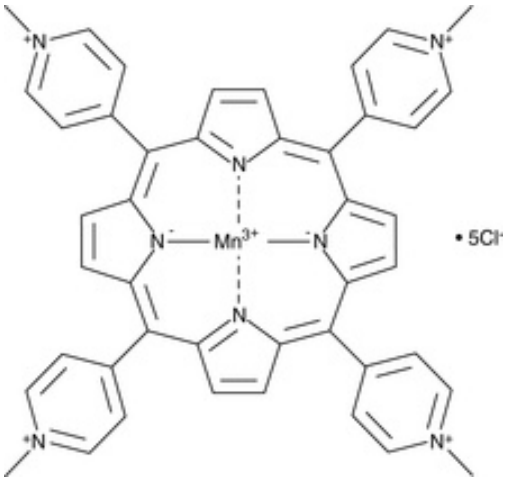
Product Data Sheet

Product Name: Mn(III)TMPyP
Cat. No.: GC44239

Chemical Properties

Cas. No.			
Chemical Name	Mn(III)tetrakis(1-methyl-4-pyridyl)porphyrin pentachloride		
SMILES	C[n]1ccc(cc1)C1=c2ccc3C(=c4ccc5=C(c6cc[n](C)cc6)c6ccc7=C(c8cc[n](C)cc8)c8ccc1n8[Mn]([n]23)([n]67)n45)c1cc[n](C)cc1		
Formula	$C_{44}H_{36}MnN_8 \cdot 5Cl$	M.Wt	909
Solubility	Soluble at concentration of at least 50mg/mL in 0.1 M Tris-HCl buffer (1 mM EDTA, pH 9.0), and 4mg/mL in PBS (pH 7.2)	Storage	Store at -20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20°C for several months.		
Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.		
Structure			

Background

Mn(III)TMPyP is a manganese-porphyrin which acts as a superoxide dismutase (SOD) mimetic and

peroxynitrite decomposition catalyst. SOD mimetics described to date are unstable and are capable of catalyzing undesired side-reactions in addition to the dismutation of the superoxide radical (O2-). Mn(III)TMPyP is an SOD mimetic with increased stability to pH and hydrogen peroxide. The rate constant for superoxide dismutation and peroxynitrite decomposition are 3.9 x 107 M-1s-1 and ~2 x 106 M-1s-1, respectively. Mn(III)TMPyP protected and enhanced the growth of SOD null E. coli with a doubling time of 60 minutes (as compared to 240 minutes of the control) at 25 µM.