Product Data Sheet

Product Name: FM-red
Cat. No.: GC61588

Chemical Properties

Cas. No.			
SMILES	CN(C1=CC=C(C2=[O+]C3=C(C=CC(N(CC)CC)=C3)C(C4=C(C=CC=C4)C(N5CCC(CC5)NC(CCCN6C(C=CC6=O)=O)=O)=O)=C2)C=C1)C.O=Cl(=O)([O-])=O		
Formula	$C_{41}H_{46}ClN_5O_9$	M.Wt	788.29
Solubility	DMSO : 50 mg/mL (63.43 mM; Need ultrasonic)	Storage	Store at -20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 ℃ and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20℃ 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	FM-red		

Background

FM-red (PSH-red) is a red-emitting and environment-sensitive probe for selectively detecting and labeling protein thiols. FM-red can be used to image protein sulfhydryl groups in live cells and in vivo. FM-red also could be used to measure of the redox states of thioredoxin (Trx)[1].

FM-red (10 μM; 30 min) is suitable for imaging protein thiols in HeLa cells[1].FM-red (20 μM; 48 h) has no significant cytotoxicity in HeLa cells[1].FM-red possesses a long emission wavelength (~655 nm) and fast response (~10 min) by binding to protein thiols[1].FM-red exhibits time- and concentration-dependent fluorescence response to bovine serum albumin (BSA)[1].

FM-red (10 μM; 30 min) could be used to image protein thiols in zebrafishes[1].

[1]. Hu G, et, al. Depletion of protein thiols and the accumulation of oxidized thioredoxin in Parkinsonism disclosed by a red-emitting and environment-sensitive probe. J Mater Chem B. 2019 Apr 28;7(16):2696-2702.

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