Data Sheet (Cat.No.T14117)



Acridine Orange 10-Nonyl Bromide

Chemical Proper	Chemical Properties	
CAS No. :	75168-11-5	сн _а
Formula:	C26H38BrN3	H ₃ C N
Molecular Weight:	472.5 Br	H _i C
Appearance:	no data available	
Storage:	keep away from direct sunlight Powder: -20°C for 3 years In solvent: -80°C for 1 year	ŀ

Biological Descripti	on
Description	Acridine Orange 10-Nonyl Bromide is a cardiolipin fluorescent probe (λex: 489 nm, λem: 525 nm).
Targets(IC50)	Others
In vivo	Acridine Orange 10-Nonyl Bromide serves as a fluorescent probe specifically for cardiolipin, exhibiting excitation (λex) at 489 nm and emission (λem) at 525 nm, enabling the quantification of cardiolipin in isolated mitochondria[1]. Interaction with cardiolipin alters its excitation and emission wavelengths from 496 and 525 nm to 450 and 640 nm, respectively. Moreover, the addition of varying levels of cardiolipin (0 to 30 µM) and other acidic phospholipids to Acridine Orange 10-Nonyl Bromide (45 µM) in thin-walled vesicles results in measurable changes in the red fluorescence emission at 640 nm, reflective of the liposome composition[2].

Solubility Information		
Solubility	DMSO: 25 mg/mL (52.91 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)	10

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.1164 mL	10.582 mL	21.164 mL
5 mM	0.4233 mL	2.1164 mL	4.2328 mL
10 mM	0.2116 mL	1.0582 mL	2.1164 mL
50 mM	0.0423 mL	0.2116 mL	0.4233 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.

Reference

Ratinaud MH, et al. In situ flow cytometric analysis of nonyl acridine orange-stained mitochondria from splenocytes. Cytometry. 1988 May;9(3):206-12.

Gallet PF, et al. Direct cardiolipin assay in yeast using the red fluorescence emission of 10-N-nonyl acridine orange. Eur J Biochem. 1995 Feb 15;228(1):113-9.

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