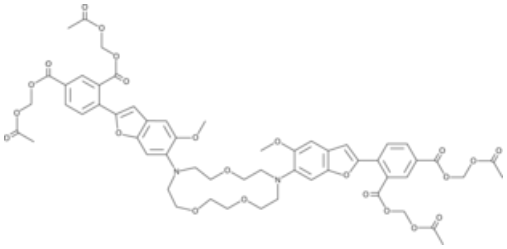
Product Data Sheet

Product Name: SBFI AM
Cat. No.: GC44876

Chemical Properties

Cas. No.	129423-53-6		
Chemical Name	4,4'-[1,4,10-trioxa-7,13-diazacyclopentadecane-7,13-diylbis(5-methoxy-6,2-benzofurandiyl)]bis-1,3-benzenedicarboxylic acid 1,1',3,3'-tetrakis[(acetyloxy)methyl] ester		
SMILES	O=C(OCOC(C)=O)C(C=C1)=CC(C(OCOC(C)=O)=O)=C1C2=CC(C=C3OC)=C(O2)C=C3N4CCOCCOCCN(C5=C(OC)C=C(C=C(C6=C(C(OCOC(C)=O)=O)C=C(C(OCOC(C)=O)=O)C=C6)O7)C7=C5)CCOCC4		
Formula	C56H58N2O23	M.Wt	1127.1
Solubility	Methanol: Soluble	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

SBFI AM is a membrane-permeant, fluorescent Na+ indicator dye. It is selective for Na+ over K+ with Kd values of 20 and 120 mM for these ions, respectively. [1]Increasing concentration of Na+ increases the ratio of excitation efficiency at 330-345 nm to that at 370-390 nm with emission collected at 450-550 nm. [1] Therefore, ratio fluorometry and imaging can be performed with the same wavelengths. SBF AM is suitable for single intracellular dye injection and is typically used for high-resolution measurements of Na+ concentration in intact tissue through two-photon confocal imaging.[2]

Caution: Product has not been fully validated for medical applications. For research use only.
Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com
Address: 10292 Central Ave. #205, Montclair, CA, USA

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Reference:

[1]. Minta, A., and Tsien, R.Y. Fluorescent indicators for cytosolic sodium. The Journal of Biological Chemisty 264(32), 19449-19457 (1989).

[2]. Meier, S.D., Kovalchuk, Y., and Rose, C.R. Properties of the new fluorescent Na+ indicator CoroNa Green: Comparison with SBFI and confocal Na+ imaging. Journal of Neuroscience Methods 155(2), 251-259 (2006).

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