

PRODUCT INFORMATION



SBFI AM

Item No. 18764

CAS Registry No.: 129423-53-6
Formal Name: 4,4'-[1,4,10-trioxa-7,13-diazacyclopentadecane-7,13-diylbis(5-methoxy-6,2-benzofurandiy)]bis-1,3-benzene dicarboxylic acid 1,1',3,3'-tetrakis [(acetyloxy)methyl] ester

Synonym: Sodium-binding Benzofuran Isophthalate Acetoxymethyl ester

MF: C₅₆H₅₈N₂O₂₃

FW: 1,127.1

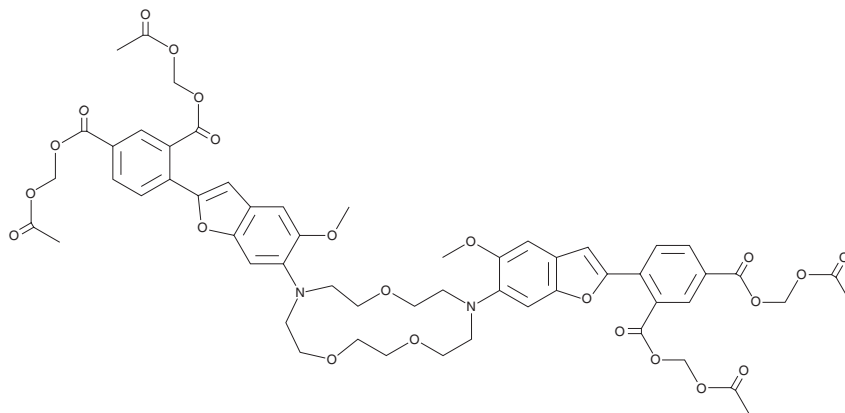
Purity: ≥95%

Ex./Em. Max: 330-345 (low Na⁺),
370-390 (high Na⁺)/450-550 nm

Supplied as: A solid

Storage: -20°C

Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

SBFI AM is supplied as a solid. A stock solution may be made by dissolving the SBFI AM in the solvent of choice which should be purged with an inert gas. SBFI AM is soluble in the organic solvent methanol, which should be purged with an inert gas.

Description

SBFI AM is a membrane-permeant, fluorescent Na⁺ indicator dye. It is selective for Na⁺ over K⁺ with K_d 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. SBFI 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

References

1. Minta, A. and Tsien, R.Y. Fluorescent indicators for cytosolic sodium. *J. Biol. Chem.* **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. *J. Neurosci. Methods* **155**(2), 251-259 (2006).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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