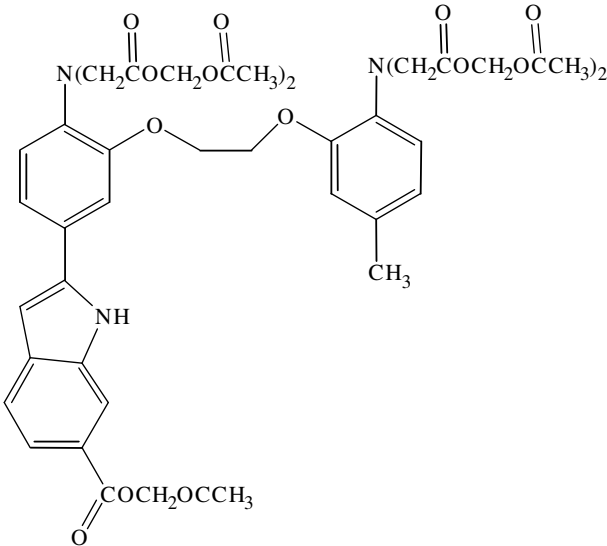


1-[2-Amino-5-(6-carboxy-2-indolyl)phenoxy]-2-(2-amino-5-methylphenoxy) ethane-N,N,N',N'-tetraacetic acid, pentaacetoxymethyl

Instruction Manual

Catalog Number	PK-CA707-50043
Description	Indo-1 is another type of improved calcium indicator that can be used in ratiometry. Two separate wavelengths in the emission spectrum, usually at 410 nm and 480 nm, are measured in the ratiometry of Indo-1. Indo-1 is suitable for ratiometry using a flow cytometer that can measure fluorescent signals at dual wavelengths and it is reported to have better properties for localization than Fura-2 after being loaded into cells. Indo-1 AM is a membrane-permeant acetoxymethyl ester derivative of Indo-1 that can be loaded into cells via incubation. Because of the relatively low water solubility of the AM ester, Pluronic F-127 (See PK-CA707-59000 and refs. therein), a mild detergent, is often used as a dispersing agent to facilitate the loading. Indo-1/AM itself does not bind Ca^{2+} , but it is readily hydrolyzed to indo-1 by endogenous esterases once the dye is inside the cells.
Quantity	10 x 100 μg
Excitation / Emission Maxima	$\lambda_{\text{ex}}/\lambda_{\text{em}} = 356/478 \text{ nm}$ (no Ca^{2+}); $\lambda_{\text{ex}}/\lambda_{\text{em}} = 330/400 \text{ nm}$ (high Ca^{2+}); Extinction Coefficient: $33,000 \text{ M}^{-1}\text{cm}^{-1}$ (no Ca^{2+}); $33,000 \text{ M}^{-1}\text{cm}^{-1}$ (high Ca^{2+})
Molecular Structure	
Molecular Weight / Molecular Formula	1010 Da; $\text{C}_{47}\text{H}_{51}\text{N}_3\text{O}_{22}$
Purity	>96% (as determined by HPLC)
Appearance / Formulation / Solubility	Light yellow solid; soluble in DMSO.
Storage & Stability	Store desiccated at -20°C . Protect from light, especially when in solution.
Applications	Fluorescent calcium indicator
References	Grieson, J.P., et al. J. Neurophysiol. 67, 704(1992) Babcock, D.R., et al. J. Biol. Chem. 262, 15041(1987) Lazzari, K.G., et al. J. Biol. Chem. 261, 9710(1986)
Caution	Potentially harmful. Avoid prolonged or repeated exposure. Avoid getting in eyes, on skin, or on clothing. Wash thoroughly after handling. If eye or skin contact occurs, wash affected areas with plenty of water for 15 minutes and seek medical advice. In case of inhaling or swallowing, move individual to fresh air and seek medical advice immediately.

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