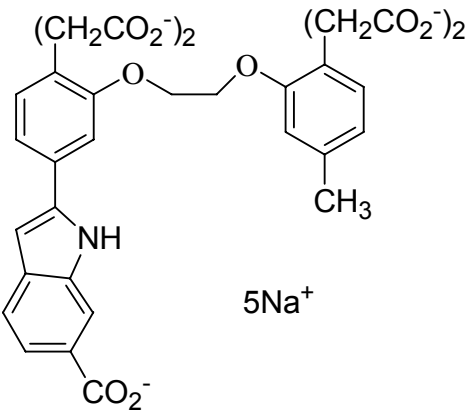


1-[2-Amino-5-(6-carboxy-2-indolyl)phenoxy]-2-(2-amino-5-methylphenoxy)-ethane-N,N,N',N'-tetracetic acid; pentasodium salt

Instruction Manual

Catalog Number	PK-CA707-50042
Description	Similar to Fura-2, Indo-1 is also a UV-excitable fluorescent Ca^{2+} sensor. However, different from Fura-2, the fluorescent emission maximum undergoes a large blue shift from 482 nm to 398 nm upon Ca^{2+} binding. Thus, Ca^{2+} concentration can be determined by ratioing the fluorescence intensities at the two wavelengths. As with Fura-2, this ratioing technique avoids problems associated with uneven dye distribution, cell or tissue thickness and photobleaching. Indo-1 has been widely used in flow cytometry studies. Indo-1, pentaammonium salt is membrane-impermeant but can be loaded into cells via microinjection or scrape loading.
Quantity	1 mg
Excitation / Emission Maxima	$\lambda_{\text{ex}}/\lambda_{\text{em}} = 349/475 \text{ nm}$ (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	759.5 Da; $\text{C}_{32}\text{H}_{26}\text{Na}_5\text{N}_3\text{O}_{12}$
Purity	>95% (as determined by HPLC)
Appearance / Formulation / Solubility	Pale pink solid; soluble in water.
Storage & Stability	Store desiccated at -20°C . Protect from light, especially when in solution.
Applications	Fluorescent calcium indicator
References	Babcock, D.R., et al. J. Biol. Chem. 262, 15041(1987)
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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