Biotium

Supplier of fluorescent and related biochemical reagents for life science research and drug discovery
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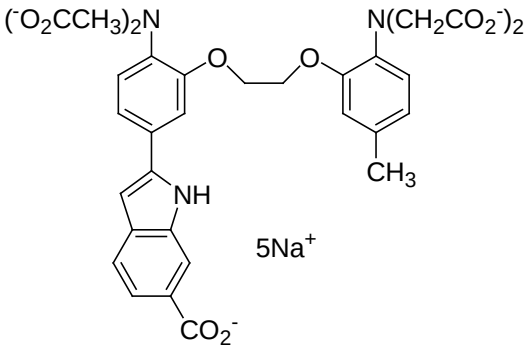
PRODUCT AND SAFETY DATA SHEET

PRODUCT NAME: **Indo-1, pentasodium salt**

CATALOG #: **50042**

MOLECULAR INFORMATION: $C_{32}H_{26}Na_5N_3O_{12}$
MWt: 759.5
[132319-56-3]



PROPERTIES:

Color & Form	Pale pink solid
Purity	≥ 95% by HPLC
Solubility	Soluble in water
Absorption/Emission	349 nm/475 nm (no Ca^{2+}); 330 nm/400 nm (high Ca^{2+})
Extinction Coefficient	33,000 $M^{-1}cm^{-1}$ (no Ca^{2+}); 33,000 M^{-1} cm^{-1}(high Ca^{2+})

STORAGE AND HANDLING: Store desiccated at 4 °C. Protect from light, especially when in solution

APPLICATION: 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, pentasodium salt is membrane-impermeant but can be loaded into cells via microinjection or scrape loading.

Ref.: Babcock, D.R., et al. *J. Biol. Chem.* **262**, 15041(1987).

TOXICITY: Unknown

FIRST AID: 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.