

Instruction Manual

Catalog Number	PK-CA707-50006
Description	The cell-permeant chelator 5,5'-difluoro-BAPTA, AM has high selectivity for Ca ²⁺ over Mg ²⁺ and a K _d for Ca ²⁺ of ~635 nM. This fluorinated BAPTA derivative can also be used for NMR analysis of Ca ²⁺ in live cells and tissues in addition to optical imaging studies. BAPTA and its derivatives are calcium chelators that are commonly used to form calcium buffers with well-defined calcium concentrations. By injecting the chelators into cells or by incubating cells with the AM ester form of the chelators, one can control the cytosolic calcium concentration, an important means to study the roles of calcium. Key advantages of these calcium chelators include relative insensitivity toward intracellular pH change and fast release of calcium. PromoKine offers several BAPTA chelators with calcium dissociation constants covering the biologically significant range from 10 ⁻⁷ to 10 ⁻² M.
Quantity	100 mg
Excitation / Emission Maxima	NA
Molecular Structure	NA
Molecular Weight / Molecular Formula	664.78 Da; C ₂₂ H ₁₈ F ₂ K ₂ N ₂ O ₁₀
Purity	NA
Appearance / Formulation / Solubility	Solid; soluble in water.
Storage & Stability	Store at 4°C.
Applications	Fluorescent high calcium indicator; for use in calcium assays
References	1) J Cell Biol 2000; (150):6 1489-1498 2) Proc Natl Acad Sci U S A 1983; (80):23 7178-7182 3) Proc Natl Acad Sci U S A 1986; (83):16 6179-6183 4) Am J Physiol 1986; (251):4 Pt 1 C496-C504 5) Am J Physiol 1987; (252):4 Pt 1 C441-C449
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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