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PBFI, AM

Catalog Number	Packaging Size
C270	1 mg
C271	20×50 µg

Storage upon receipt: -20°C, protected from light

Introduction

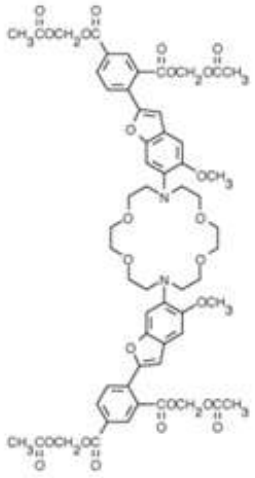
PBFI, AM is a cell-permeant potassium indicator, used to measure intracellular K^+ fluxes in animal cells and in plant cells and vacuoles. The spectral response of PBFI upon ion binding permit excitation ratio measurements, and this indicator can be used with the same optical filters and equipment used for fura-2.

The dissociation constant (Kd) of PBFI for K^+ is 5.1 mM in the absence of Na^+, and 44 mM in solutions with a combined Na^+ and K^+ concentration of 135 mM (which approximates physiological ionic strength). Although PBFI is only 1.5-fold more selective for K^+ than for Na^+, this selectivity is often sufficient because intracellular K^+ concentrations are normally about 10 times higher than Na^+ concentrations.

PBFI, AM is supplied as 1 mg package (**Cat No. C270**), as well as special packaging 20×50 µg (**Cat No. C271**).

Specifications

Label:	PBFI
Ex/Em:	340, 380/500 nm
Detection Method:	Fluorescent
Solubility:	DMSO, DMF
Molecular Weight:	1171.12
CAS Number:	124549-23-1
Storage Conditions:	-20°C, protect from light
Shipping Condition:	Room Temperature



Applications

Potassium indicator

References:

1. In-Situ Determination of Intracellular Concentrations of K+ in Barley (Hordeum vulgare L. cv. Kara) Using the K+-Binding Fluorescent Dye Benzofuran Isopthalate.
   Lindberg S
   Planta (1995) 195:525-525

2. Regulation of intracellular potassium in mesangial cells: a fluorescence analysis using the dye, PBFI.Regulation of intracellular potassium in mesangial cells: a fluorescence analysis using the dye, PBFI.
   Kasner SE, Ganz MB
   Am J Physiol (1992) 262:F462-F467

3. 4-aminopyridine decreases progesterone production by porcine granulosa cells.4-aminopyridine decreases progesterone production by porcine granulosa cells.
   Li Y, Ganta S, von Stein FB, Mason DE, Mitchell BM, Freeman LC
   Reprod Biol Endocrinol (2003) 1:31-31