

PBFI AM



Membrane Permeable, Ratiometric Green Fluorescent Potassium Indicator. UV-excitable, ~340nm can be used to measure K⁺-bound PBFI and ~380nm can be used to detect K⁺-free PBFI. It is 1.5X more selective for K⁺ over Na⁺ and works well in cytosolic conditions where [K⁺]/[Na⁺] is ~10.

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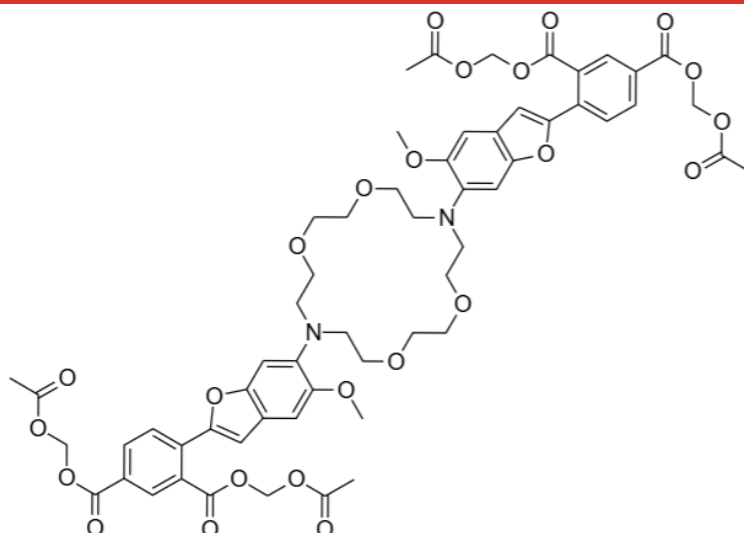
3031B	1 mg x 1
3031E	50 µg x 20
3031G	50 µg x 5

Description	
CAS number	124549-23-1
PubChem CID	3283499
Molecular Weight	1170 g/mol
Solubility	DMSO
K _d (for K ⁺)	5 mM (in absence of Na ⁺) 44 mM (in presence of Na ⁺)
Storage	-20°C
Appearance	Clear to yellow orange film or pellet
Container	1.5 mL polypropylene cryogenic vial

Absorbance Spectrum	Agilent Cary 60 UV-VIS Spectrophotometer
Solvent*	High Potassium (K ⁺) Buffer Solution
Absorbance max	337 ± 3 nm

Fluorescence Spectrum	Horiba Jobin Yvon FluoroMax Plus Spectrofluorometer
Solvent*	High Potassium (K ⁺) Buffer
Excitation max	337 ± 3 nm
Emission max	492 ± 3 nm

*Note: AM Esters are hydrolyzed to the ion sensing form



LCMS	Agilent 1220 Infinity II
Column	Phenomenex 00D-4251-E0 Luna C ₁₈ , 4.6 x 100 mm, 100Å, 3 µm
UV-Vis Diode Array Detector	254 nm
Purity	≥ 95%
Single Quad MS Detector	ESI positive
Molecular Ion	1171.4 ± 0.5 m/z [M+H] ⁺ 586.2 ± 0.5 m/z [M+2H] ²⁺

¹ H NMR Spectrum	Bruker Avance 400
Solvent	CDCl ₃
Spectra	Product conforms to structure

Cell Assay	BioTek Cytation 5 Cell Imaging Multi-mode Reader
F/F ₀ post stimulus in relevant biological assay	To Pass Test
Imaging Analysis	Observed fluorescence is intracellular with minimal extracellular fluorescence