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Lieferung & Zahlungsart

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Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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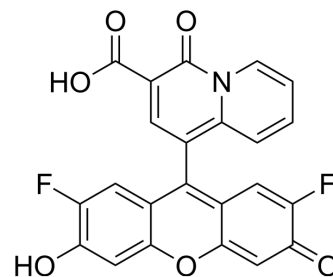
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KMG-104

Cat. No.:	HY-139646		
CAS No.:	852057-94-4		
Molecular Formula:	C ₂₃ H ₁₁ F ₂ NO ₆		
Molecular Weight:	435.33		
Target:	Fluorescent Dye		
Pathway:	Others		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro	DMSO : 50 mg/mL (114.86 mM; ultrasonic and warming and heat to 80°C)				
		Solvent Concentration	Mass 1 mg	5 mg	10 mg
	Preparing Stock Solutions	1 mM	2.2971 mL	11.4855 mL	22.9711 mL
		5 mM	0.4594 mL	2.2971 mL	4.5942 mL
10 mM		0.2297 mL	1.1486 mL	2.2971 mL	
Please refer to the solubility information to select the appropriate solvent.					
In Vivo	<ol style="list-style-type: none"> Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.5 mg/mL (5.74 mM); Clear solution Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (5.74 mM); Clear solution 				

BIOLOGICAL ACTIVITY

Description	KMG-104 is a highly selective fluorescent Mg ²⁺ probe. KMG-104 has been used widely and revealed Mg ²⁺ mobilization in cytoplasm in various types of cells ^[1] .
In Vitro	<p>KMG-104 is useful for confocal laser scanning microscopy because it is excited at 490 nm, and emitted fluorescence around 510 nm. Fluorescent intensity of KMG-104 increases with [Mg] increase, and it shows no response to Na, K, and Ca; the dissociation constant (K_d) for Mg is 3 mM. KMG-104 is able to trace only [Mg] change in physiological conditions^[2].</p> <p>PC12 cells are loaded with a novel Mg indicator KMG-104 and Ca indicator fura-2, and intracellular Mg is studied in the endoplasmic reticulum (ERs), mitochondria, and Mg-ATP^[2].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>

REFERENCES

- [1]. Kubota T, et al. Investigation of intracellular magnesium mobilization pathways I PC12 cells B simultaneous Mg-Ca fluorescent imaging. J Am Coll Nutr. 2004;23(6):742S-4S.
- [2]. Fujii T, et al. Design and synthesis of a FAsH-type Mg²⁺ fluorescent probe for specific protein labeling. J Am Chem Soc. 2014;136(6):2374-2381.
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Caution: Product has not been fully validated for medical applications. For research use only.

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