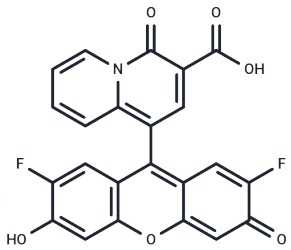
Data Sheet (Cat.No.T40948)

TargetMol

KMG-104

Chemical Properties



CAS No. : 852057-94-4

Formula: C23H11F2NO6

Molecular Weight: 435.33

Storage: Keep away from direct sunlight
Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	KMG-104 is a selective Mg2+ fluorescent probe for dynamic observation of Mg2+ in the cytoplasm of living cells.
Targets(IC50)	Others
In vitro	KMG-104 is suitable for confocal laser scanning microscopy because it is excited at 490 nm and emits fluorescence at around 510 nm. The fluorescence intensity of KMG-104 increases with increasing [Mg] and is unresponsive to Na, K, and Ca; the dissociation constant (Kd) for Mg is 3 mM. KMG-104 can only track changes in [Mg] under physiological conditions. [2]

Solubility Information

Solubility	DMSO: 40 mg/mL (91.88 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (4.59 mM),Sonication is recommended. *Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.*

Preparing Stock Solutions

	1mg	5mg	10mg
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
50 mM	0.0459 mL	0.2297 mL	0.4594 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

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.
Fujii T, et al. Design and synthesis of a FlAsH-type Mg2+ fluorescent probe for specific protein labeling. J Am Chem Soc. 2014;136(6):2374-2381.

Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481