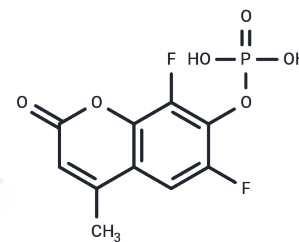


DiFMUP

Chemical Properties

CAS No. :	214491-43-7
Formula:	C ₁₀ H ₇ F ₂ O ₆ P
Molecular Weight:	292.13
Storage:	Store at low temperature Powder: -20°C for 3 years In solvent: -80°C for 1 year <i>Actual storage temperature shall be subject to the COA.</i>



Biological Description

Description	DiFMUP (6,8-Difluoro-4-methylumbelliferyl phosphate) inhibits protein tyrosine phosphatases (PTPs) and can be used to assay threonine phosphatase activity.
Targets(IC50)	Others,Phosphatase

Solubility Information

Solubility	DMSO: 75 mg/mL (256.74 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Saline: 7.5 mg/mL (25.67 mM),Solution. <i>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.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.4231 mL	17.1157 mL	34.2313 mL
5 mM	0.6846 mL	3.4231 mL	6.8463 mL
10 mM	0.3423 mL	1.7116 mL	3.4231 mL
50 mM	0.0685 mL	0.3423 mL	0.6846 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

Gee KR, et al. Fluorogenic substrates based on fluorinated umbelliferones for continuous assays of phosphatases and beta-galactosidases. *Anal Biochem.* 1999 Aug 15;273(1):41-8.

Welte S, et al. 6,8-Difluoro-4-methylumbiliferyl phosphate: a fluorogenic substrate for protein tyrosine phosphatases. *Anal Biochem.* 2005 Mar 1;338(1):32-8.

Gade TP, et al. Imaging of alkaline phosphatase activity in bone tissue. *PLoS One.* 2011;6(7):e22608.

Lade DM, et al. Design and synthesis of improved active-site SHP2 inhibitors with anti-breast cancer cell effects. *Eur J Med Chem.* 2023 Feb 5;247:115017.

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