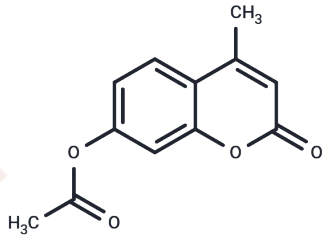
Data Sheet (Cat.No.T7037)

TargetMol

7-Acetoxy-4-methylcoumarin

Chemical Properties



CAS No. : 2747-05-9

Formula: C12H10O4

Molecular Weight: 218.21

Storage: 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	7-Acetoxy-4-methylcoumarin is a fluorescent substrate for carboxylesterases and acts as an inhibitor of GST, which can be isolated from Trigonella foenum graceum and inhibits AFB1-DNA binding.
Targets(IC50)	GST
In vitro	**METHODS**: A pair of peptides with 18 amino acid residues spanning Lys201 (K201 peptide) and another with 20 residues containing Lys334 (K334 peptide) were synthesized and analyzed using high-performance LC-MS/MS to demonstrate the acetylation effect of 7-Acetoxy-4-methylcoumarin on both peptides. **RESULTS** 7-Acetoxy-4-methylcoumarin effectively acetylated Lys201 and Lys334 in each peptide, and the amount of acetylated peptide increased in a 7-Acetoxy-4-methylcoumarin dose-dependent manner. [1]

Solubility Information

Solubility	DMSO: 45 mg/mL (206.22 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Corn Oil: 2 mg/mL (9.17 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	4.5827 mL	22.9137 mL	45.8274 mL
5 mM	0.9165 mL	4.5827 mL	9.1655 mL
10 mM	0.4583 mL	2.2914 mL	4.5827 mL
50 mM	0.0917 mL	0.4583 mL	0.9165 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

Gao X, et al. Downregulation of Rubisco Activity by Non-enzymatic Acetylation of RbcL. Mol Plant. 2016 Jul 6;9(7):1018-27.

Raj HG,et al. Mechanism of biochemical action of substituted benzopyran-2-ones. Part 8: Acetoxycoumarin: protein transacetylase specificity for aromatic nuclear acetoxy groups in proximity to the oxygen heteroatom. Bioorg Med Chem. 2001 May;9(5):1085-9.