

Coumarin 6

Chemical Properties

CAS No. : 38215-36-0

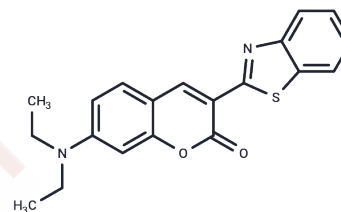
Formula: C₂₀H₁₈N₂O₂S

Molecular Weight: 350.43

Keep away from direct sunlight

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

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| Description | Coumarin 6 (Coumarin VI) is a fluorescent dye frequently used to facilitate the traceability of drug delivery systems in vitro. |
| Targets(IC50) | Others |
| In vitro | We report the use of Coumarin 6(Coumarin VI) and 1,6-diphenyl-1,3,5-hexatriene (DPH) for the identification of protein aggregates for the first time. The two dyes can be used at very low (nanomolar) concentrations and do not interfere with the aggregation process, as is reported for other commonly used fluorescent protein probes. In the presence of protein aggregates, their quantum yields are significantly high. DPH is able to recognize both amorphous and fibrillar aggregates but cannot distinguish between them. Coumarin 6(Coumarin VI) can distinguish between both types of aggregates. It also exhibits the characteristic sigmoidal curve of amyloid formation, with higher sensitivity for detection of fibrillation than the conventionally used Thioflavin T. |

Solubility Information

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|------------|--|
| Solubility | DMSO: 5 mg/mL (14.27 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble) |
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Preparing Stock Solutions

| | 1mg | 5mg | 10mg |
|-------|-----------|------------|------------|
| 1 mM | 2.8536 mL | 14.2682 mL | 28.5364 mL |
| 5 mM | 0.5707 mL | 2.8536 mL | 5.7073 mL |
| 10 mM | 0.2854 mL | 1.4268 mL | 2.8536 mL |
| 50 mM | 0.0571 mL | 0.2854 mL | 0.5707 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

Coumarin 6 and 1,6-diphenyl-1,3,5-hexatriene (DPH) as fluorescent probes to monitor protein aggregation.

Analyst. 2011 May 21;136(10):2161-7.

Dong Y, Zheng Y, Zhang J, et al. mPEG-PDLLA polymeric micelles loading a novel pyridazinone derivative IMB5036 for improving anti-tumor activity in hepatocellular carcinoma. Journal of Drug Delivery Science and Technology. 2023, 90: 105101.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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