

4-(Trifluoromethyl)umbelliferone

Chemical Properties

CAS No. :	575-03-1
Formula:	C ₁₀ H ₅ F ₃ O ₃
Molecular Weight:	230.14
Storage:	Keep away from direct sunlight Store at -20°C <small>Actual storage temperature shall be subject to the COA.</small>

Biological Description

Description	4-(Trifluoromethyl)umbelliferone is a coumarin-derived fluorescent compound substituted with a trifluoromethyl group. 4-(Trifluoromethyl)umbelliferone exhibits pH-responsive fluorescence, high quantum yield, metabolic stability, and enzyme substrate specificity, making it a versatile fluorescent probe for biomedical research. 4-(Trifluoromethyl)umbelliferone can be used for the detection of cytochrome P450 enzyme and UDP-glucuronosyltransferase activity, as well as for pH indication applications.
Targets(IC50)	Others

Solubility Information

Solubility	DMSO: 80 mg/mL (347.61 mM) (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	4.3452 mL	21.7259 mL	43.4518 mL
5 mM	0.869 mL	4.3452 mL	8.6904 mL
10 mM	0.4345 mL	2.1726 mL	4.3452 mL
50 mM	0.0869 mL	0.4345 mL	0.869 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

Renwick AB, et, al. Evaluation of 7-benzyloxy-4-trifluoromethylcoumarin, some other 7-hydroxy-4-trifluoromethylcoumarin derivatives and 7-benzyloxyquinoline as fluorescent substrates for rat hepatic cytochrome P450 enzymes. Xenobiotica. 2001 Dec;31(12):861-78.

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