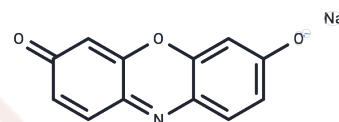


Resorufin sodium salt

Chemical Properties

CAS No. :	34994-50-8
Formula:	C ₁₂ H ₆ NNaO ₃
Molecular Weight:	235.17
Storage:	Keep away from direct sunlight Powder: -20°C for 3 years In solvent: -80°C for 1 year <small>Actual storage temperature shall be subject to the COA.</small>



Biological Description

Description	Resorufin sodium salt (NSC-12097 sodium salt) is a fluorescent pink dye.
Targets(IC50)	Others, Reactive Oxygen Species, ROS
Cell Research	<p>1. For the detection of ROS and RNS</p> <p>1. Solution preparation: Dissolve Resorufin sodium salt in an appropriate solvent (such as deionized water or PBS), usually preparing a working solution with a concentration of 0.1-10 μM.</p> <p>2. Treatment: Add the solution to the cell culture medium or tissue section and incubate for a certain period of time (usually 15-120 minutes) to allow the dye to enter the cell and react with ROS/RNS.</p> <p>3. Fluorescence detection: Fluorescence detection is performed by fluorescence microscopy, fluorescence spectrophotometer or flow cytometer. The excitation wavelength of Resorufin is 540 nm and the emission wavelength is 590 nm.</p> <p>4. Data analysis: The concentration of ROS/RNS is proportional to the intensity of the fluorescence signal, and the change of ROS/RNS can be quantitatively evaluated by the change of the fluorescence signal intensity.</p> <p>2. For the detection of biomarkers and analytes</p> <p>1. Labeling reaction: Resorufin sodium salt reacts with the target biomolecule or probe to bind to the analyte.</p> <p>2. Detection and analysis: Use a fluorescence microscope or spectrophotometer to perform quantitative analysis based on the change in fluorescence signal intensity after the reactant binds to the dye.</p> <p>III. Used for cell activity and function research</p> <p>1. Cell treatment: Add Resorufin sodium salt to the cell culture medium and observe the fluorescence changes after incubation for a certain period of time.</p> <p>2. Cell viability assessment: Evaluate the increase or decrease in ROS levels in cells through changes in fluorescence intensity, and then infer the physiological state of cells.</p> <p>IV. Application in animal models</p> <p>1. Animal treatment: Inject or gavage Resorufin sodium salt into animals, or use it in in vitro tissue samples of animals.</p> <p>2. Fluorescence imaging: Evaluate the changes of ROS/RNS under different experimental conditions through in vivo or in vitro imaging techniques (such as</p>

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Cell Research	fluorescence imaging or fluorescence detection of tissue sections). The above information is based on published literature. Experimental procedures should be appropriately modified to meet specific research demands.
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Solubility Information

Solubility	DMSO: 2.36 mg/mL (10.04 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	4.2522 mL	21.2612 mL	42.5224 mL
5 mM	0.8504 mL	4.2522 mL	8.5045 mL
10 mM	0.4252 mL	2.1261 mL	4.2522 mL
50 mM	0.085 mL	0.4252 mL	0.8504 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

Wen Q, Chiral and SHG-Active Metal-Organic Frameworks Formed in Solution and on Surfaces: Uniformity, Morphology Control, Oriented Growth, and Postassembly Functionalization. *J Am Chem Soc.* 2020 Aug 19;142(33):14210-14221.

Almammadov T, et al. Resorufin Enters the Photodynamic Therapy Arena: A Monoamine Oxidase Activatable Agent for Selective Cytotoxicity. *ACS Med Chem Lett.* 2020 Nov 23;11(12):2491-2496.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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