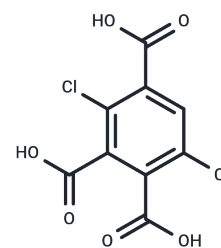


3,6-Dichlorotrimellitic acid

Chemical Properties

CAS No. :	137071-78-4
Formula:	C ₉ H ₄ Cl ₂ O ₆
Molecular Weight:	279.03
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	3,6-Dichlorotrimellitic acid serves as the fundamental precursor for the synthesis of numerous dichlorinated fluoresceins and rhodamines.
Targets(IC50)	Others, Autophagy
Cell Research	<p>Instructions</p> <p>I. Solution preparation</p> <ol style="list-style-type: none"> 1. Stock solution: Dissolve 3,6-Dichlorotrimellitic acid in an appropriate solvent (such as anhydrous DMF or DMSO) to prepare a stock solution with a concentration of 1-10 mM. 2. Working solution: Dilute the stock solution to an appropriate working concentration, usually 10-100 μM, according to experimental needs. PBS (pH 7.4) or other suitable buffers can be used. <p>II. Application steps</p> <p>a. Synthesis of fluorescein chloride or rhodamine derivatives</p> <ol style="list-style-type: none"> (1) React 3,6-Dichlorotrimellitic acid with aminofluorescein or aminorhodamine, usually in an anhydrous solvent. (2) Reaction conditions: The common reaction temperature is 50-70°C and the reaction time is 2-6 hours. After the reaction is completed, use an appropriate solvent (such as methanol or water) for purification. (3) The obtained product can be used to label DNA or oligonucleotides. <p>b. Labeling oligonucleotides or DNA</p> <ol style="list-style-type: none"> (1) React the synthesized dichlorofluorescein or rhodamine derivatives with the target oligonucleotide or DNA. (2) Use chlorofluorescein or rhodamine to bind to amino groups or other functional groups in nucleic acids by covalent binding. (3) Reaction time: usually 1-2 hours, temperature controlled at 4°C. (4) After the reaction is completed, purify the labeled DNA or oligonucleotide by gel electrophoresis or liquid chromatography. <p>c. Calibration and control</p> <p>Control group: Set up unreacted fluorescent dye or unlabeled DNA as a control to ensure the specificity of the labeling.</p> <p>Standard curve: Use a known concentration of labeled DNA sample to establish a standard curve between the fluorescence signal and the DNA concentration.</p> <p>Precautions</p>

Cell Research	<p>(1) Photosensitivity: 3,6-Dichlorotrimellitic acid and its derivatives chlorofluorescein and rhodamine are generally highly photosensitized and should be avoided from direct exposure to strong light.</p> <p>(2) Storage conditions: 3,6-Dichlorotrimellitic acid and its derivatives should be stored at -20°C, away from light to prevent degradation.</p> <p>(3) Solubility: 3,6-Dichlorotrimellitic acid may release chlorine gas when dissolved. Experiments should be carried out in a well-ventilated environment.</p> <p>The above information is based on published literature. Experimental procedures should be appropriately modified to meet specific research demands.</p>
---------------	---

Solubility Information

Solubility	DMSO: 60 mg/mL (215.03 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	<p>10% DMSO+40% PEG300+5% Tween-80+45% Saline: 2.5 mg/mL (8.96 mM), Sonication is recommended.</p> <p><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></p>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.5838 mL	17.9192 mL	35.8384 mL
5 mM	0.7168 mL	3.5838 mL	7.1677 mL
10 mM	0.3584 mL	1.7919 mL	3.5838 mL
50 mM	0.0717 mL	0.3584 mL	0.7168 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.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

Tel: 781-999-4286 E_mail: info@targetmol.com Address: 34 Washington Street, Wellesley Hills, MA 02481