

Benzenepentacarboxylic Acid

Chemical Properties

CAS No. : 1585-40-6

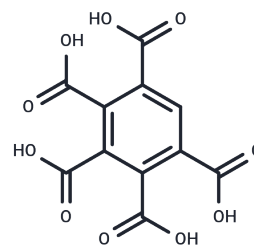
Formula: C₁₁H₆O₁₀

Molecular Weight: 298.16

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

Description	Benzenepentacarboxylic Acid (Pentacarboxybenzene) is a novel fluorescent probe to detect and scavenge HO ⁻ . Benzenepentacarboxylic acid is utilized to prove and detect the generation of HO ⁻ in H ₂ O ₂ /TAED and H ₂ O ₂ /TBCC alkali systems.
Targets(IC50)	Others, Reactive Oxygen Species, ROS
In vitro	<p>Benzenepentacarboxylic Acid labeled HO experiment</p> <p>a. Solution preparation:</p> <ol style="list-style-type: none"> 1. Mother solution preparation: Prepare a certain concentration of Benzenepentacarboxylic Acid mother solution, store it at -20°C or -80°C in the dark after aliquoting. 2. Working solution preparation: Dilute Benzenepentacarboxylic Acid to 400 μmol/L working solution, select the appropriate working solution concentration according to the experimental requirements, and try to prepare it before use. <p>b. Operation steps:</p> <ol style="list-style-type: none"> 1. Mix the Benzenepentacarboxylic Acid working solution with other reaction reagents and react at a certain temperature for 60 min. 2. Rapidly cool the temperature, measure the fluorescence intensity at the maximum excitation wavelength (311 nm) and characterize the concentration of HO. <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: 48 mg/mL (160.99 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 mg/mL (6.71 mM), Sonication is recommended.</p> <p>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.</p>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.3539 mL	16.7695 mL	33.539 mL
5 mM	0.6708 mL	3.3539 mL	6.7078 mL
10 mM	0.3354 mL	1.677 mL	3.3539 mL
50 mM	0.0671 mL	0.3354 mL	0.6708 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

Si F, et al. Study on H₂O₂/TAED and H₂O₂/TBCC bleaching mechanism related to hydroxyl radical with a fluorescent probe. Carbohydr Polym. 2014 Mar 15;103:581-6.

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