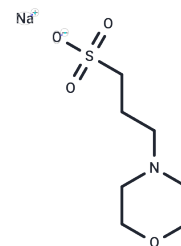


MOPS sodium salt

Chemical Properties

CAS No. :	71119-22-7
Formula:	C7H14NNaO4S
Molecular Weight:	231.24
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	MOPS sodium salt (MOPS-Na) is a novel stabilizer maintaining the pH of mammalian cell culture media. It used as a buffer for the native structure of BSA against thermal denaturation. MOPS sodium salt(3-(N-morpholino)propanesulfonic acid sodium salt) is commonly used as a buffer in biology.
Targets(IC50)	Others
Cell Research	<p>I. Cell Culture Buffer</p> <ol style="list-style-type: none"> 1. Buffer Preparation: Dissolve MOPS-Na in distilled water and adjust the pH as needed (usually 7.4) to form a buffer. 2. Add to culture medium: Add MOPS-Na to the cell culture medium to help maintain a stable pH during culture. The final concentration of the buffer is usually 20 mM to 50 mM, which is adjusted according to the experimental requirements. 3. Sterilization: The buffer can be processed by autoclaving or filter sterilization to ensure its sterility and suitability for cell culture. 4. pH Monitoring: During cell culture, it is recommended to check the pH value regularly, especially during long-term culture or culture in a closed system, to prevent CO₂ accumulation from causing pH changes. <p>II. Electrophoresis</p> <ol style="list-style-type: none"> 1. Prepare MOPS-based electrophoresis buffer, which usually contains 50 mM MOPS-Na, 50 mM sodium acetate and 1 mM EDTA, and adjust the pH to 7.0-7.5. 2. This buffer can be used for agarose gel or polyacrylamide gel electrophoresis and is suitable for the separation of nucleic acids and proteins. <p>III. In vitro biochemical reactions</p> <p>Prepare MOPS buffer at an appropriate concentration (usually 20-50 mM) and adjust the pH according to the specific reaction conditions to ensure that the pH remains stable throughout the experiment.</p>

Solubility Information

Solubility	DMSO: 2.32 mg/mL (10.03 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	4.3245 mL	21.6226 mL	43.2451 mL
5 mM	0.8649 mL	4.3245 mL	8.649 mL
10 mM	0.4325 mL	2.1623 mL	4.3245 mL
50 mM	0.0865 mL	0.4325 mL	0.8649 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

Gupta BS, Taha M, Lee MJ. Buffers more than buffering agent: introducing a new class of stabilizers for the protein BSA. *Phys Chem Chem Phys*. 2015 Jan 14;17(2):1114-33.

Shimura K, Waki T, Okada M, Toda T, Kimoto I, Kasai K. Analysis of protein-protein interactions with a multi-capillary electrophoresis instrument. *Electrophoresis*. 2006 May;27(10):1886-94.

Porter DJ, Short SA. Yeast orotidine-5'-phosphate decarboxylase: steady-state and pre-steady-state analysis of the kinetic mechanism of substrate decarboxylation. *Biochemistry*. 2000 Sep 26;39(38):11788-800.

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