

# MOPS

## 3-[N-Morpholino]-propanesulfonic acid

Store at room temperature.

<b>Catalog #:</b>	AM9570
<b>Amount:</b>	100 g
<b>Appearance:</b>	White crystalline powder
<b>Molecular Weight:</b>	209.27
<b>Molecular Formula:</b>	C <sub>7</sub> H <sub>15</sub> NO <sub>4</sub> S
<b>Chemical Analysis:</b>	Purity >99%
	pK <sub>a</sub> at 25°C 7–7.4

**Storage Conditions:** Store at room temperature. Protect from moisture.

### USER INFORMATION

**Product Description:** MOPS is a zwitterionic buffer frequently used in the electrophoresis of RNA on agarose gels. It serves as an electrolyte that favorably reduces heat generation while allowing timely separation to occur. Typical composition for a 10X stock buffer (in which MOPS is a component):

400 mM MOPS  
100 mM NaOAc pH 7.0  
10 mM EDTA

Formaldehyde may be added to agarose gels made with MOPS to produce denaturing conditions for the reduction of RNA secondary structure. This is the standard method for Northern analysis. A protocol for denaturing agarose gel electrophoresis of RNA can be found at: [www.ambion.com/techlib/append/supp/rna\\_gel.html](http://www.ambion.com/techlib/append/supp/rna_gel.html).

### QUALITY CONTROL

<b>Nonspecific Endonuclease Activity:</b>	Meets or exceeds specification when a sample is incubated for 14–16 hr with 300 ng supercoiled plasmid DNA and analyzed by agarose gel electrophoresis.
<b>Exonuclease Activity:</b>	Meets or exceeds specification when a sample is incubated for 14–16 hr with 40 ng labeled <i>Sau3A</i> fragments of pUC19 and analyzed by PAGE.
<b>RNase Activity:</b>	Meets or exceeds specification when a sample is incubated for 14–16 hr with 25 ng labeled RNA and analyzed by PAGE.
<b>Functional Testing:</b>	Separation of RNA markers on a denaturing agarose gel in 1X MOPS buffer, analyzed by ethidium bromide staining.

### OTHER INFORMATION

**Material Safety Data Sheets:** Material Safety Data Sheets (MSDSs) can be printed or downloaded from product-specific links on our website at the following address: [www.ambion.com/techlib/msds](http://www.ambion.com/techlib/msds). Alternatively, e-mail your request to [MSDS\\_Inquiry\\_CCRM@appliedbiosystems.com](mailto:MSDS_Inquiry_CCRM@appliedbiosystems.com). Specify the catalog or part number(s) of the product(s), and we will e-mail the associated MSDSs unless you specify a preference for fax delivery. For customers without access to the internet or fax, our technical service department can fulfill MSDS requests placed by telephone or postal mail. (Requests for postal delivery require 1–2 weeks for processing.)

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