

RNA Gel Loading Solution (10X) (Molecular Biology Grade)

Catalog #: 351-081-661EA 10mL
351-081-661 5 x 10mL

Store at: 15°C to 30°C
Shipped at: ambient temperature

Caution: Quality Biological's formulation does not contain formaldehyde or formamide. It is strongly recommended that freshly deionized formamide be used.

Description

Quality Biological's (QBI) RNA Gel Loading Solution (10X) is prepared according to Sambrook, Fritsch, & Maniatis (1989)¹. The purpose of this reagent is to ensure that the RNA samples remain submerged in the wells of the gel, by making them denser than the electrophoresis buffer.

Applications

- RNA Gel Electrophoresis³
- Northern Blot Analysis⁴

Quality Control

General

All Quality Biological products for Molecular Biology are prepared according to standard published protocols.^{1,2}

All products are subjected to a variety of quality control procedures, including pH and osmolality determinations in order to validate the product is within its specifications.

Product Specific Testing

RNA Gel Loading Solution (10X) is routinely tested for the absence of DNase and RNase activity.

The test results of individual lots of RNA Gel Loading Solution (10X) are available on the Quality Biological website.

References

1. Sambrook, J., Fritsch, E.F. & Maniatis, T. (1989) *Molecular Cloning, A Laboratory Manual*, 2nd Ed. Cold Spring Harbor Laboratory Press.
2. Ausubel, F.M. et al., eds. (1993), *Current Protocols in Molecular Biology*, Greene Publishing Associates, Inc., in association with John Wiley & Sons, Inc.
3. Miller, K., (1985) *BRL FOCUS*, 9(3), Life Technologies, Inc.
4. Davis, L.G., Dibner, M.D., & Battey, J.F. (1986), *Basic Methods in Molecular Biology*, Elsevier Science Publishing Company, Inc.

Directions

For Native Conditions (without formaldehyde and formamide)

1. Using all the precautions necessary when working with RNA, add the following items to an RNase free microcentrifuge tube:
 - _____ μ L sample
 - 2.5 μ L RNA Gell Buffer (10X) (Cat. # 351-059-101)
 - 1.0 μ L 1mg/mL Ethidium Bromide (optional)
 - _____ μ L DEPC Treated Water (Cat # 351-068-131) to bring volume to 22.5 μ L
2. Heat the samples at 65°C for 15 minutes
3. Immediately chill the samples on ice for 5 minutes
4. Add 2.5 μ L of RNA Gel Loading Solution (10X). The total volume should now be 25 μ L.
5. Mix thoroughly
6. Load the samples into the wells of either an agarose or polyacrylamide gel
7. Run the gel according to the specifications provided by the manufacturer of the electrophoresis equipment

For Denaturing Conditions (with formaldehyde and formamide)

1. Using all the precautions necessary when working with RNA, add the following items to an RNase free microcentrifuge tube:
 - _____ μ L sample
 - 2.5 μ L RNA Gell Buffer (10X) (Cat. # 351-059-101)
 - 1.0 μ L 1mg/mL Ethidium Bromide (optional)
 - _____ μ L DEPC Treated Water (Cat # 351-068-131)
 - 4.5 μ L formaldehyde (37%, 12.2M)
 - 12.5 μ L formamide (freshly deionized)
 - Bring volume to 22.5 μ L
2. Heat the samples at 65°C for 15 minutes

3. Immediately chill the samples on ice for 5 minutes
 4. Add 2.5 μ L of RNA Gel Loading Solution (10X). The total volume should now be 25 μ L.
 5. Mix thoroughly
 6. Load the samples into the wells of either an agarose or polyacrylamide gel
- Run the gel according to the specifications provided by the manufacturer of the electrophoresis equipment

Related Products

DEPC Treated Water

Catalog #	351-065-721EA	100mL
	351-068-721	Pack of 4 x 100mL
	351-068-131	1000mL
	351-068-131CS	10 x 1000mL
	351-068-491	4 Liters
	351-068-151	10 Liters
	351-068-161	20 Liters

Molecular Biology Grade Water

Catalog #	351-029-721EA	100mL
	351-029-721	Pack of 4 x 100mL
	351-029-101	500mL
	351-029-101CS	10 x 500mL
	351-029-131	1000mL
	351-029-131CS	10 x 1000mL
	351-029-491	4 Liters
	351-029-151	10 Liters
	351-068-161	20 Liters

All products sold by Quality Biological are intended for research use only. This product has not been approved for diagnostic or IVD use.