

Glyoxal Sample Buffer for RNA Electrophoresis

Introduction

Lonza Glyoxal Sample Buffer is an RNA denaturant intended for use with a MOPS buffer-based gel system. Glyoxal Sample Buffer is compatible with Lonza Reliant[®] RNA Gel System and all other MOPS-buffered agarose gels. Following electrophoresis, RNA can be visualized with GelStar[®] Nucleic Acid Stain or ethidium bromide.

Storage

12 months when stored at room temperature. Additional shelf life can be gained with storage at 4°C.

Protocol

To use glyoxal loading buffer, perform the following steps:

1. Prepare an agarose gel using 1X MOPS Buffer in the gel and running buffer. See below for MOPS Buffer recipe.
2. Mix the glyoxal sample buffer with the RNA sample in a ratio of 1 part RNA sample to 1 part glyoxal sample buffer. For more than 10 µg RNA, use 1 part RNA sample to 2 parts glyoxal sample buffer. Mix briefly, then centrifuge to concentrate liquid at the bottom of the tube.
3. Heat the mixture for 15 minutes at 65°C.
4. Immediately chill on ice for 1 minute.
5. Centrifuge to concentrate liquid at the bottom of the tube
6. If tracking dye is desired, use 1 µl of Lonza Triple Dye Loading Buffer per sample.
7. Load samples on gel and electrophorese as normal.
8. Following electrophoresis, the gel can be stained with either GelStar[®] Nucleic Acid Stain following instructions included with the stain, or with ethidium bromide, following standard protocols for staining glyoxalated RNA.

MOPS Buffer Recipe

Prepare 10X MOPS Running Buffer using RNase-free chemicals, water and containers:

200 mM MOPS (free acid)	41.86 g
50 mM sodium acetate	6.80 g
10 mM EDTA•2H ₂ O	3.72 g
10 mM EGTA (free acid)	3.80 g

1. Mix with 850 ml water.
2. Adjust pH to 7 with 10 M NaOH.
3. Adjust final volume to 1 Liter.
4. Filter through a 0.2 µm nitrocellulose filter and store protected from light.

Alternatively, Lonza offers AccuGENE[®] 10X MOPS Buffer.

Ordering Information

Catalog No.	Description	Quantity
50560	Glyoxal Sample Buffer	1.7 ml

Related Products

AccuGENE[®] 10X MOPS Buffer
GelStar[®] Nucleic Acid Stain
GelStar[®] Nucleic Acid Stain Photographic Filter
Reliant[®] and Latitude[®] Precast RNA Gels

For more information contact Technical Service at (800) 521-0390 or visit our website at www.Lonza.com.

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