

## Product Information

Catalog #    Description

### Premixed Sample Buffers

- 161-0737    2x Laemmli Sample Buffer, 30 ml
- 161-0747    4x Laemmli Sample Buffer, 10 ml
- 161-0710    2-Mercaptoethanol, 25 ml
- 161-0738    Native Sample Buffer, 30 ml
- 161-0739    Tricine Sample Buffer, 30 ml
- 161-0767    5x Nucleic Acid Sample Buffer, 10 ml
- 161-0768    TBE-Urea Sample Buffer, 30 ml
- 161-0763    IEF Sample Buffer, 30 ml
- 161-0764    Zymogram Sample Buffer, 30 ml

### Premixed Buffers

- 161-0732    10x Tris/Glycine/SDS, 1 L
- 161-0772    10x Tris/Glycine/SDS, 5 L
- 161-0734    10x Tris/Glycine, 1 L
- 161-0771    10x Tris/Glycine, 5 L

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4006028 Rev J

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## 2x Laemmli Sample Buffer

Catalog #161-0737

## 4x Laemmli Sample Buffer

Catalog #161-0747

**BIO-RAD**

## Introduction

Bio-Rad's Laemmli sample buffers are based on the method of Laemmli (1970). The use of Laemmli sample buffers ensures optimal band resolution when preparing proteins for SDS-PAGE with Tris-glycine-SDS running buffer.

## Formulations

<b>2x Laemmli sample buffer</b>	65.8 mM Tris-HCl, pH 6.8 26.3% (w/v) glycerol 2.1% SDS 0.01% bromophenol blue
<b>4x Laemmli sample buffer</b>	277.8 mM Tris-HCl, pH 6.8 44.4% (v/v) glycerol 4.4% LDS 0.02% bromophenol blue
<b>Storage</b>	Room temperature
<b>Shelf life</b>	2 years from date of manufacture

## Instructions for Use

### 1. Add Reducing Agent

To obtain a final 1x concentration of 355 mM 2-mercaptoethanol

**2x Laemmli sample buffer:** Add 50  $\mu$ l of 2-mercaptoethanol per 950  $\mu$ l.

**4x Laemmli sample buffer:** Add 100  $\mu$ l of 2-mercaptoethanol per 900  $\mu$ l.

Alternatively, add dithiothreitol (DTT or Cleland's reagent) to a final 1x concentration of 50 mM.

**Note:** For best results, do not store sample buffer with 2-mercaptoethanol.

### 2. Dilute Sample

**2x Laemmli sample buffer:** Dilute 1 part sample with 1 part 2x Laemmli sample buffer.

**4x Laemmli sample buffer:** Dilute 3 parts sample with 1 part 4x Laemmli sample buffer. More sample buffer can be added if necessary.

## Reference

Laemmli UK (1970). Cleavage of structural proteins during the assembly of the head of bacteriophage T4, Nature 227. 680–685.