

# 4xLaemmli SDS sample Buffer

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Catalog No.	Description	Size
SAB02-01	4x Laemmli SDS sample Buffer	25 ml
SAB02-02	4x Laemmli SDS sample Buffer	50 ml

## Description:

The Laemmli SDS sample Buffer is used for the preparation of protein samples for SDS-PAGE. The buffer contains all the necessary reagents for complete disruption of high-order protein structures. The SDS included in the buffer binds to hydrophobic regions of the protein, causing the protein to unfold and giving it a negative charge. The reducing agent ( $\beta$ -mercaptoethanol or DTT) breaks disulfide bonds and destroys residual secondary structures. As  $\beta$ -mercaptoethanol or DTT is prone to oxidation during multiple freeze-thaw cycles, it needs to be added before use.

## Composition

Tris.HCl (pH 6.8)	250 mM
SDS	8%
Glycerol	40%
Bromophenol blue	0.02%

Note: Before use, add 80  $\mu$ l  $\beta$ -mercaptoethanol to 920  $\mu$ l 4x Laemmli SDS Sample Buffer.

**Storage Temperature:** Ambient temperature

## Procedure

1. Dissolve precipitated solids (if any) in the Sample Buffer at 37°C.
2. Mix gently the Sample Buffer to ensure that the solutions are homogeneous.
3. Add 80  $\mu$ l  $\beta$ -mercaptoethanol to 920  $\mu$ l 4x Laemmli SDS sample Buffer and mix.
4. Add **1  $\mu$ l** of 4x sample Buffer to **3  $\mu$ l** protein sample and mix. Using 1x Sample Buffer (dilute in ddH<sub>2</sub>O or milli-Q H<sub>2</sub>O) to make up the volume difference if needed.
5. Heat samples at 100°C for 5 minutes.
6. Centrifuge briefly and load directly to a SDS polyacrylamide gel.



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