## 6xLaemmli SDS sample Buffer

Catalog No.	Description	Size
SAB03-01	6x Laemmli SDS sample Buffer	25 ml
SAB03-02	6x 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)
 375 mM

 SDS
 9%

 Glycerol
 50%

 Bromophenol blue
 0.03%

Note: Before use, add 90 μl β-mercaptoethanol is needed for 910 μl 6x 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 90 μl β-mercaptoethanol to 910 μl 6x Laemmli SDS sample Buffer and mix.
- 4. Add **1 μI** of 6x sample Buffer to **5 μI** 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.