Protein Sample Loading Buffer

(Denaturing, Reducing, 5×)

S750308

Store at 2-8℃ short term (3 months). Store at -20℃ long term (12 months).

Introduction:

This product is designed for protein sample preparation in SDS-PAGE electrophoresis. Its novel formulation ensures a neutral pH after boiling, preventing protein degradation. It features fast thawing from –20°C and eliminates unpleasant odors by replacing traditional reducing agents (e.g., β-mercaptoethanol or DTT) with an advanced odorless alternative.

Key Features:

1. Prevents Degradation: Neutral pH after boiling avoids protein degradation, ideal for phosphorylated proteins.
2. Rapid Settlement: Samples sink quickly to the bottom of wells without floating.
3. Fast Thawing: Rapid melting from –20°C without viscosity.
4. Odorless: Contains a novel reducing agent—no β-mercaptoethanol or DTT, no unpleasant smell.

Protocol:

1. Add 1 volume of loading buffer to 4 volumes of protein sample (1:4 ratio) and mix thoroughly.
2. Heat the mixture in a boiling water bath for 5–10 minutes.
3. Centrifuge at high speed for 5 minutes. Use the supernatant for electrophoresis.

3.1 Note: If no insoluble debris is observed after adding loading buffer, brief centrifugation is sufficient to collect the mixture.

3.2 If condensation forms on the tube lid after heating, gently flick the tube to mix condensation with the sample before centrifugation to ensure uniform loading concentration.

Usage method:

1. Gels loaded with this buffer may exhibit yellowing or streaks in silver staining due to the reducing agent.
2. Not suitable for non-denaturing gel electrophoresis as it contains denaturing agents.
3. Wear a lab coat and disposable gloves for safety.
4. For research use only.