

ClearBand 10x Running Buffer, Tris/Glycine/SDS

Troubleshooting Guide

500 ml, 1000 ml, 5x500 ml

Cat No: TGS05, TGS10, TGS055

Use this guide for common preparation and electrophoresis problems with ClearBand 10x Tris/Glycine/SDS Running Buffer, pH 8.3. The buffer is intended for denaturing SDS-PAGE and should be diluted to 1x with deionized water before use.

Before You Start - Quick Checks

1. Store at room temperature.
2. Dilute the 10x stock to 1x with deionized water before use.
3. Use 1x buffer in the electrophoresis tank.
4. This formulation is intended for denaturing SDS-PAGE.

Problem	Most likely cause	Recommended action
Proteins migrate abnormally	The 10x stock may not have been diluted to 1x before electrophoresis.	Prepare a fresh 1x working buffer from the 10x stock with deionized water.
Run is unusually fast or slow	The working-buffer concentration may be incorrect.	Verify the 10x-to-1x dilution and replace the tank buffer with correctly prepared 1x buffer.
Band pattern is inconsistent between runs	Different working-buffer concentrations may have been prepared.	Standardize the 10x-to-1x dilution and use the same preparation method for each run.
Non-denaturing behavior was expected	The product contains SDS and is formulated for denaturing SDS-PAGE.	Use a buffer formulated for the intended non-denaturing workflow rather than this Tris/Glycine/SDS running buffer.
Tank was filled with stock solution	10x concentrate was used directly.	Remove the concentrate, rinse as appropriate for the system, and refill with correctly diluted 1x running buffer.
Prepared volume is incorrect	The stock volume may not have been included in the final-volume calculation.	Prepare the final working volume from one part 10x stock plus the required deionized water to reach 1x.
Unexpected variability across gel systems	The buffer may not be used at the same final concentration in each system.	Keep the running buffer at 1x and follow the gel/electrophoresis system requirements consistently.
Concern about buffer preparation quality	Water quality or dilution technique may vary.	Use deionized water as specified and prepare 1x buffer consistently before filling the electrophoresis tank.

Still having trouble? Confirm the 10x stock was diluted to 1x with deionized water and that the electrophoresis workflow is denaturing SDS-PAGE before troubleshooting other run variables.