Tris-Glycine Mini Gels

	Product	Quantity
Package Contents	4%, 6%, 8%, 10%, 12%, 14%, 16%, 18%, 4–12%, 8–16%, 4–20%, or 10–20% Tris-Glycine Gels	Box of 5 or 10 gels

Storage Conditions

- Store at 2–8°C for an 8-week shelf life.
- Use 16% and 18% Tris-Glycine gels within 4 weeks.
- Do not freeze.

Required Materials

- Protein sample and standard
- Tris-Glycine Native Running Buffer (10X)
- Tris-Glycine SDS Running Buffer (10X)
- Tris-Glycine Native Sample Buffer (2X)
- Tris-Glycine SDS Sample Buffer (2X)
- NuPAGE® Reducing Agent
- Novex® Power Supply Adapters (Cat. no. ZA10001) if not using a Life Technologies™ power supply
- XCell *SureLock*® Mini-Cell gel running tank

Timing

Run Time: **Denaturing electrophoresis:** ~90 minutes
Native electrophoresis: 1–12 hours (depending on gel percentage and electrophoresis device)

Voltage: 125 V constant

Selection Guide

Protein Gels
Go online to view related products.

Product Description

Tris-Glycine Gels are precast polyacrylamide gels designed for optimal separation and resolution of small- to large-sized proteins (6–500 kDa) during electrophoresis under native or denaturing conditions, depending on the buffer.

Tris-Glycine Mini Gels are available in the following variations:

- **Polyacrylamide percentages**: 4%, 6%, 8%, 10%, 12%, 14%, 16%, 18%, 4–12%, 8–16%, 4–20%, and 10–20%
- **Well formats**: 1, 5, 9, 10, 12, 15, 2D, and IPG wells
- **Thicknesses**: 1.0 mm and 1.5 mm

Important Guidelines

- This system is designed for use in the XCell *SureLock*® Mini-Cell gel running tank.

Online Resources

Visit our product page for additional information and protocols. For support, visit www.lifetechnologies.com/support.

For Research Use Only. Not for use in diagnostic procedures.

novex® by life technologies™

Print Options

Protocol Outline

A. Prepare samples, buffers, and gels.
B. Assemble the gel apparatus.
C. Load buffer, samples, and standards.
D. Perform electrophoresis.

Electrophoresis Protocol

See page page 2 to view a procedure for preparing and running your electrophoresis experiment.

Choosing the Right Gel Type for Your Application

Review the table in the pop-up to determine the best gel type for your experiment.

Choosing the Right Gel Percentage and Buffer

Refer to the migration charts in the pop-up to find the gel best suited for your application. As a general rule, your proteins of interest should migrate through ~70% of the length of the gel for the best resolution. When protein molecular weights are wide ranging or unknown, gradient gels are usually the best choice.

Choosing a Well Format and Gel Thickness

We offer polyacrylamide gels in a choice of nine well formats and two thicknesses, depending on the gel type. When loading large samples (>30 µL), a thicker gel with fewer wells is more appropriate; Bolt™ Bis-Tris Plus gels are the best choice when loading large samples. When blotting, however, proteins will transfer more easily from a thinner gel.

Choosing a Protein Standard for your Application

Choose a Life Technologies™ standard based on your experiment:

Pre-Stained: SeeBlue® Plus2 Pre-Stained Standard or Novex® Sharp Pre-Stained Protein Standard

Unstained: Novex® Sharp Unstained Protein Standard or Mark12™ Unstained Standard

Western: MagicMark™ XP Western Protein Standard

For all other specialty standards, please view further information here.

Limited Product Warranty and Disclaimer Details

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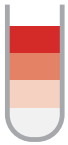
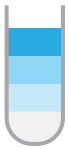
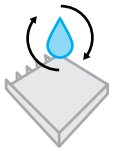
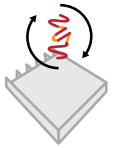
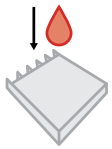
NuPAGE® Tris-Glycine Mini Gel Electrophoresis Protocol

Follow the procedure below to prepare for and perform Native or SDS polyacrylamide gel electrophoresis using NuPAGE® Tris-Glycine Mini Gels.

Timeline	Steps	Procedure Details
1 	**Prepare samples**	See table below
2 	**Prepare buffers**	**Denaturing Buffer:** Add 100 mL 10X Tris-Glycine SDS Running Buffer to 900 mL deionized water to prepare 1X Tris-Glycine SDS Running Buffer. **Native Buffer:** Add 100 mL 10X Tris-Glycine Native Running Buffer to 900 mL deionized water to prepare 1X Tris-Glycine Native Running Buffer.
3 	**Prepare gels**	a. Remove the comb, and rinse the gel wells three times using 1X Running Buffer. b. Remove the white tape near the bottom of the gel cassettes. c. Place the gels in the XCell *SureLock*® Mini-Cell gel running tank. d. Fill the gel wells with 1X Running Buffer.
4 	**Load samples and standards**	Load the appropriate volume and protein mass of your sample on the gel. Then, load your standards.
5 	**Load buffers**	Fill the Upper (200 mL) and Lower (600 mL) Buffer Chambers with the appropriate 1X Running Buffer.
6 	**Run**	**NOTE:** If you are not using a Life Technologies™ power supply, install the Novex® Power Supply Adapters (Catalog number ZA10001). Optimal run times are dependent on gel percentage and electrophoresis device. **Denaturing Electrophoresis:** Run for 90 minutes at 125 V constant. **Native Electrophoresis:** Run for 1–12 hours at 125 V constant.

Components	Denaturing Sample*	Native Sample
Sample	x µL	x µL
Tris-Glycine SDS Sample Buffer (2X)	5 µL	—
Tris-Glycine Native Sample Buffer (2X)	—	5 µL
Deionized Water	to 5 µL	to 5 µL
Total Volume	10 µL	10 µL

* For reduced samples, add NuPAGE® Reducing Agent (10X) to 1X.

Denaturing Samples: Heat at 85°C for 2 minutes.

Native Samples: Do not heat.

Prepare 1X Sample Buffer for dilutions of samples, if needed.