

Product 8% Bis-Tris Gels 10% Bis-Tris Gels 12% Bis-Tris Gels 4–12% Bis-Tris Gels

## Quantity Package Contents

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 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 chart 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 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 Box of 10 gels Box of 10 gels Box of 10 gels Box of 10 gels

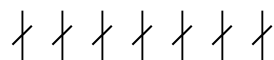
## Storage Conditions



Store Do not at freeze.

2–8°C for a 1-year shelf life.

## Required Materials



Protein sample and standard Bolt™ MES SDS Running Buffer (20X) Bolt™ MOPS SDS Running Buffer (20X) Bolt™ Antioxidant Bolt™ LDS Sample Buffer (4X) Bolt™ Sample Reducing Agent (10X) Novex® Power Supply Adapters (Cat. no. ZA10001) if not ✓

using Bolt™ a Mini Life Gel Technologies™ Tank  
power supply

Run Time: 22 minutes with MES Running Buffer Timing

32 minutes with MOPS Running Buffer Voltage: 200 V constant

## Selection

## Protein Gels Guide

Go online to view related products.

### Product Description

Bolt™ Bis-Tris Plus Gels are precast polyacrylamide gels designed for optimal separation and resolution of small- to medium sized proteins (1.5–300 kDa) under denaturing gel electrophoresis conditions. Bolt™ Bis-Tris Plus Mini Gels are available in the following variations: † † †

**Polyacrylamide Well Thickness: formats: 1.0 10, mm**

percentages: 12, 15, and 17 8%, wells

10%, 12%, and 4–12%

### Important Guidelines



This system is designed for use in the Bolt™ Mini Gel †

Tank. The gel cassettes with the wedge-shaped wells are designed specifically for the Bolt™ Mini Gel Tank, and are not compatible with other electrophoresis systems.

### Online Resources

Visit our product page for additional information and protocols. For support, visit [www.lifetechnologies.com/support](http://www.lifetechnologies.com/support).

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

# **Bolt™ Bis-Tris Plus Mini Gels Protocol 2013 Bolt™ Bis-Tris Plus Mini Gel Electrophoresis Protocol**

Follow the procedure below to prepare for and perform denaturing gel electrophoresis using Bolt™ Bis-Tris Plus Gels.

Components Reduced Sample Non-Reduced Sample Sample x  $\mu\text{L}$  x  $\mu\text{L}$  Bolt™ LDS Sample Buffer (4X)  
2.5  $\mu\text{L}$  2.5  $\mu\text{L}$

## **1 Prepare samples**

Bolt™ Reducing Agent (10X) Deionized Water 1  $\mu\text{L}$  to 6.5  $\mu\text{L}$  --

to 7.5  $\mu\text{L}$  Total Volume 10  $\mu\text{L}$

10  $\mu\text{L}$

Heat samples at 70°C for 10 minutes. Prepare 1X Sample Buffer for dilutions of samples, if needed.

## **2 Prepare buffers**

-2- Add 50 mL of 20X Bolt™ MES or MOPS SDS Running Buffer to 950 mL of deionized water to prepare 1X SDS Running Buffer. For reduced samples, prepare the running buffer for the Cathode Buffer Chamber by adding 500  $\mu\text{L}$  of Bolt™ Antioxidant to 200 mL 1X SDS 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 Bolt™ Mini Gel Tank. d. Fill the gel wells with 1X Running Buffer.

## **4 Load buffers**

Fill the Anode and Cathode Chambers with the appropriate 1X Running Buffer.

5

## **Load samples and**

Load the appropriate volume and protein mass of your sample on the gel.  
standards

Then, load your standards

## **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 vary depending on gel percentage and power supply used for electrophoresis. When using MES Running Buffer, run for 22 minutes at 200 V constant. When using MOPS Running Buffer, run for 32 minutes at 200 V constant.

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