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 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; BoltTM 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 TechnologiesTM 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 Mark12TM Unstained Standard Western: MagicMarkTM 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 BoltTM MES SDS Running Buffer (20X) BoltTM MOPS SDS Running Buffer (20X) BoltTM Antioxidant BoltTM LDS Sample Buffer (4X) BoltTM Sample Reducing Agent (10X) Novex® Power Supply Adapters (Cat. no. ZA10001) if not

using BoltTM a Mini Life Gel TechnologiesTM 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

BoltTM 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. BoltTM Bis-Tris Plus Mini Gels are available in the following variations: ᚾ ᚾ ᚾ

Polyacrylamide Well Thickness: formats: 1.0 10, mm

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

10%, 12%, and 4–12%

Important Guidelines

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This system is designed for use in the BoltTM Mini Gel ᚾ

Tank. The gel cassettes with the wedge-shaped wells are designed specifically for the BoltTM 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.

BoltTM Bis-Tris Plus Mini Gels Protocol 2013 BoltTM Bis-Tris Plus Mini Gel Electrophoresis Protocol

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

Components Reduced Sample Non-Reduced Sample Sample x µL x µL BoltTM LDS Sample Buffer (4X) 2.5 µL 2.5 µL

1 Prepare samples

BoltTM Reducing Agent (10X) Deionized Water 1 µL to 6.5 µL --

to 7.5 µL Total Volume 10 µL

10 µL

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 BoltTM 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 µL of BoltTM 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 BoltTM 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 TechnologiesTM 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.