

UltraBio™ Tris-Acetate Precast PAGE Gel for High Molecular Weight Protein

Cat. No.: T753564 | Pack size: 10EA | Storage: 2-8 °C, do not freeze

Overview

Aladdin UltraBio™ Tris-Acetate Precast PAGE Gel for High Molecular Weight Protein are safe, fast and high-performance precast gels, widely used for the separation and detection of high molecular weight (HMW) proteins.

Product Features:

- Manufactured with automated gel casting technology to ensure high stability and reproducibility.
- Effectively separates high molecular weight proteins ranging from 40 kDa to 500 kDa.
- Equipped with glass plates to minimize non-specific protein adsorption, delivering sharper and clearer protein bands.
- Short electrophoresis duration: complete run in 60 minutes at 150 V.
- Easy cassette opening: gently score one side of the cassette with a blade for effortless separation.
- Compatible with major mini electrophoresis systems including Bio-Rad, Invitrogen, Tanon, Junyi-Dongfang, Beijing Liuyi and others.
- Available in homogeneous gels and gradient gels (7%, 3-8%). Customization for special concentrations is also provided.

Basic Information:

Item	Value
Gel Plate Dimensions	Width × Height × Thickness = 100 × 84 × 4.6 mm
Number of Wells	10 wells, 15 wells
Gel Dimensions	Width × Height × Thickness = 81 × 74 × 1.5 mm
Gel Thickness	1.5 mm
Maximum Sample Loading	60 µL, 30 µL

Item	Value
Acr-Bis Ratio	37.5 : 1
Stacking Gel	4%, 1.5 cm
Package	10 gels per box

Shipping and Storage:

1. The product can be shipped at room temperature. If stored at room temperature, keep in a cool place, avoid extreme temperature fluctuations and direct sunlight.
2. Store at 2-8 °C for a shelf life of 2 months.
3. Do not store below 0 °C. Gels will freeze below 0 °C, forming bubbles and cracks, which will render the gels unusable.

Precast Gel Selection Guide:

Cat. No.	Concentration	Wells	Maximum Sample Loading Volume	Running Buffer	Transfer Buffer	Separation Range	Recommended Voltage
T753564-A1-10EA	7%	10	60 µL	Tris-Acetate	Tris-Acetate	35-300 kD	150 V
T753564-B1-10EA	7%	15	30 µL	Tris-Acetate	Tris-Acetate	35-300 kD	150 V
T753564-A2-10EA	3-8%	10	60 µL	Tris-Acetate	Tris-Acetate	45-400 kD	150 V
T753564-B2-10EA	3-8%	15	30 µL	Tris-Acetate	Tris-Acetate	45-400 kD	150 V

Instructions for Use

1. Remove the UltraBio™ Precast Gel for High Molecular Weight Proteins (Tris-Acetate) from the package, clamp it into the electrophoresis tank, and assemble the electrophoresis unit.
2. Add 1× Tris-Acetate-SDS Running Buffer (T767965) to the tank. Fill the inner chamber completely; fill the outer chamber to at least 1/3 height, but not above the gel plates. Then gently pull out the comb slowly.
3. Gently pipette up and down in the wells to remove residual gel debris.

4. Sample loading: Mix protein sample 1:1 with 2× High Molecular Weight Protein Loading Buffer (S750310) thoroughly, then heat at 100 °C for 5-10 min. Avoid piercing the gel or inserting the tip too deeply, which may deform the gel and cause leakage during electrophoresis.
5. Connect the power supply and run at constant voltage 150 V. Stop electrophoresis when the bromophenol blue dye front reaches the bottom of the gel or the desired position.
6. After electrophoresis, take out the gel cassette. Use a blade to cut along the seam between the two glass plates to open the cassette. To prevent gel tearing or sticking, carefully slide the blade between the gel and glass strips. Caution: Be careful with the blade.

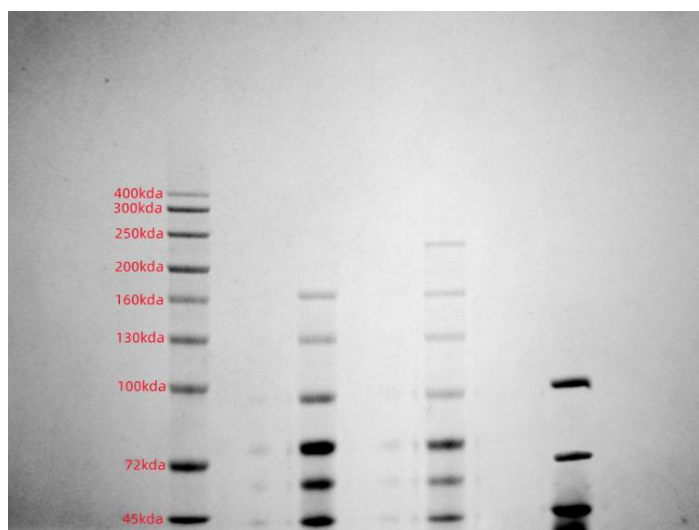
Precast Gel Separation Profile:

Mobility Profile

3-8%

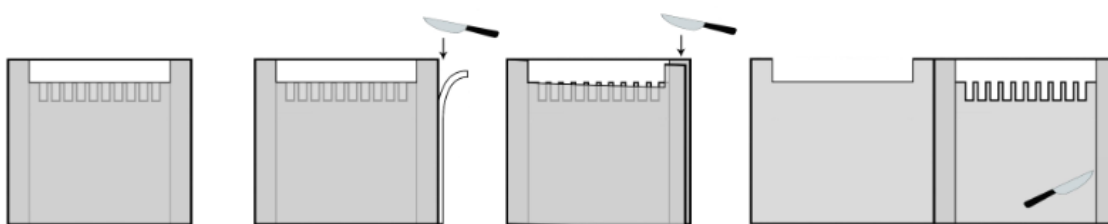
7%

	400kDa
	300kDa
	250kDa
	200kDa
	160kDa
	130kDa
400kDa	
300kDa	
250kDa	100kDa
200kDa	
160kDa	
130kDa	72kDa
100kDa	
	45kDa
72kDa	
45kDa	



Gel Disassembly

1. First, make a simple cut along the side gel (or remove excess gel-sealing material from the sides of the glass plate first).
2. Use a knife to cut through the gel-sealing material along the gap between the glass plate and the glass strip at the side gel (at the arrow), then gently open the glass plate.
3. When removing the gel, make a cut along the glass strips between the gel and the glass strips on both sides to prevent the gel from sticking and breaking during removal.



Electrophoresis Tanks Compatible with UltraBio™ Gel Mini Precast Gels

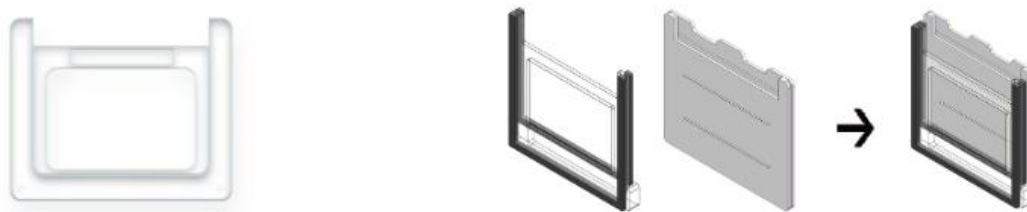
UltraBio™ Gel series precast gels are compatible with most mini SDS-PAGE electrophoresis tanks, including:

- a. Bio-Rad Mini-PROTEAN (II/3/Tetra System)
- b. Hoefer Mighty Small (SE250/SE260/SE280)
- c. Life Technology Novex Mini-Cell (use with Aladdin custom cassette shield 01)
- d. Life Mini Gel Tank (use with Aladdin custom cassette shield 02)
- e. Beijing Liuyi DYCZ-25E, DYCZ-24K, DYCZ-24KS, DYCZ-24KF
- f. Junyi-Dongfang JY-SCZ2+
- g. Tanon VE180

or other electrophoresis tanks with a gel plate width of 10 cm.

Application in Life Electrophoresis Tanks:

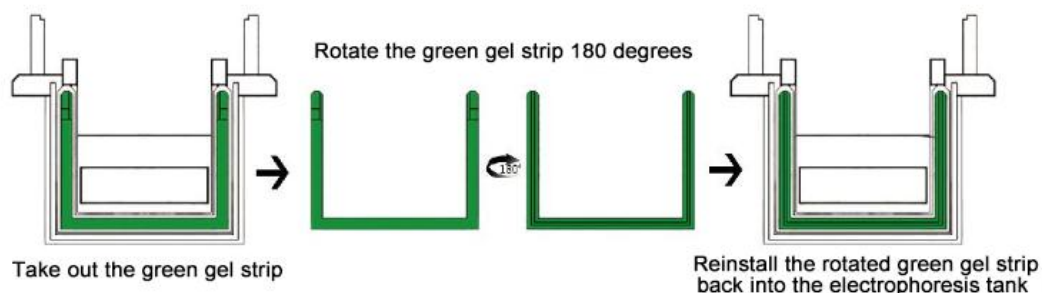
If required, please inform us when ordering this product. Place Baffle No. 01 on the outer side of the gel and place Baffle No. 02 on the inner side of the gel, as shown in Figure 4.



Application in Bio-Rad Electrophoresis Tanks:

The top of the U-shaped sealing strip in the Bio-Rad Mini-PROTEAN series electrophoresis tanks has a raised structure, while the short glass plate of Aladdin's UltraBio™ series precast gels has a concave structure-resulting in a flat surface at this location. Before electrophoresis, the sealing strip with the raised structure must be removed and reinstalled in reverse, with the smooth side facing outward, to prevent liquid leakage (as shown in Figure 5).

- Pull out the U-shaped sealing strip (the green part in the figure) from the Bio-Rad electrophoresis tank. Note that the two ends of the sealing strip have protrusions at this point: the side with protrusions is the front side, and the side without protrusions is the back side.
- Rotate the sealing strip 180 degrees (with the front side facing inward and the back side facing outward) and reinstall it in the electrophoresis tank. Ensure the perimeter of the sealing ring is pressed firmly to prevent liquid leakage.
- Place the precast gel and proceed with normal electrophoresis operations.



Precautions

- Reuse of electrophoresis buffer is not recommended. After electrophoresis, ionic strength and buffering capacity change, which cannot guarantee consistent electrophoresis performance. During transfer, increasing methanol concentration in transfer buffer improves transfer efficiency of low-molecular-weight proteins. Recommended methanol concentration: 20%-30%.
- Methanol may cause precipitation of high-molecular-weight proteins. To avoid this, reduce methanol concentration in transfer buffer to 5%. To further prevent protein precipitation, add SDS to a final concentration of 0.1%. SDS provides uniform negative charge to proteins and facilitates their transfer from gel to membrane.

3. For proteins > 20 kDa, PVDF membrane with 0.45 µm pore size is recommended.
4. For wet transfer: run at 120 V constant voltage for 60-90 minutes. For better transfer efficiency, adjust conditions appropriately based on the remaining prestained marker in the precast gel and the marker transferred onto the membrane.
5. For research use only by professional personnel. Not for clinical diagnosis or other improper uses. Do not store in ordinary residential premises.
6. For your safety and health, wear personal protective equipment and laboratory clothing during operation.

Specifications

Attribute	Value
Product Name	UltraBio™ Tris-Acetate Precast PAGE Gel for High Molecular Weight Protein
Synonyms	Tris-Acetate Precast
Grade	BioReagent, for PAGE, for western blot, suitable for electrophoresis
Specifications & Purity	BioReagent, suitable for electrophoresis, for PAGE, for western blot

Storage and Shipping

Item	Value
Storage Conditions	Store at 2-8 °C, do not freeze
Shipped In	Wet ice, do not freeze
Stability and Storage	Store at 4 °C for 2 months. Do not freeze.

Recommended Applications

Separation and detection of high molecular weight proteins in SDS-PAGE and western blotting workflows using compatible mini electrophoresis systems.

Contact & Global Offices

Whether you have a technical question, need help with a quotation, or want to inquire about an order, our regional teams are ready to assist. Please contact the office for your region; for general inquiries, the North American office is the corporate primary.

NORTH AMERICAN SALES, SUPPORT & GENERAL INQUIRIES

Aladdin Scientific Corporation

14078 Meridian Parkway, Riverside, CA 92518, USA

Phone: 1-833-552-7181

Sales: sales@aladdinsci.com

Customer Service: custserv@aladdinsci.com

EU SALES, LOGISTICS & LOCALIZED SUPPORT

Aladdin Biochem Deutschland GmbH

Westring 2, 33142 Büren, Germany

Phone: +02951 9383958

Support: support.eu@aladdinsci.com

Limitations & Disclaimer

- For Research Use Only (RUO). Not for use in human or animal diagnostics, therapeutics, or in vivo applications. Not for food, cosmetic, or household use.
- This product is not a CE-marked in vitro diagnostic device under IVDR (EU) 2017/746 and is not an FDA-cleared device under 21 CFR. Use is restricted to verified businesses, institutions, and qualified professionals for research and development purposes.
- Where any kit component is classified as hazardous under CLP (EC) 1272/2008 or OSHA HCS (29 CFR 1910.1200), the product Safety Data Sheet (SDS) takes precedence over this document for handling, storage, and disposal information.
- Performance depends on sample type, sample condition, handling, and operator technique. Users are responsible for validating the product for their specific application.
- Aladdin product labels, SDS, COA, and approved specifications take precedence over this document. If product formulation, label, SDS, storage conditions, pack size, or quality specifications change, this document would be reviewed and reissued.