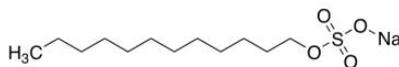


## UltraBio™ SDS-PAGE Precast Gel (Bis-Tris)

(Product Number: [U776776](#))

### 1. SDS-PAGE

- ❖ Polyacrylamide gel electrophoresis (PAGE) is an electrophoretic technique that employs polyacrylamide gel as the supporting matrix. The core principle lies in the molecular sieving effect of the gel's network structure, which enables precise separation of proteins and nucleic acids based on their charge, molecular shape, and size. Depending on the physicochemical properties of the analytes, PAGE can be classified into two types: native polyacrylamide gel electrophoresis (native-PAGE) and denaturing polyacrylamide gel electrophoresis.
- ❖ Sodium dodecyl sulfate (SDS) is a hydrophilic surfactant with excellent water solubility and surface activity. In denaturing electrophoresis, SDS is commonly used as a denaturant for proteins, whereas urea, formamide, and similar reagents are more frequently employed for nucleic acids.



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Figure 1. Chemical structure of SDS

- ❖ Sodium dodecyl sulfate–polyacrylamide gel electrophoresis (SDS-PAGE) is one of the most widely used applications of this technique, primarily employed to separate proteins and polypeptides in a sample according to their molecular weight.

### 2. Product Description

- ❖ This product is a polyacrylamide electrophoresis gel designed for protein separation. Each gel is available with 10, 12, or 15 wells. For the 10-well format, the maximum loading volume per well is 70 µL, with a recommended volume of ≤35 µL. For the 12-well format, the maximum loading volume is 50 µL, with a recommended volume of ≤25 µL. For the 15-well format, the maximum loading volume is 30 µL, with a recommended volume of ≤15 µL.

- ❖ Manufactured using fully automated gel casting technology, the product offers high reproducibility and stable quality. Its unique gel buffer formulation yields clearer, sharper, and more uniform protein electrophoresis bands, resulting in enhanced resolution.
- ❖ The accompanying buffer is a neutral buffer, which enhances gel stability and prevents protein re-modification during electrophoresis.

### 3.Product Advantages



**Excellent stability**



**High resolution**



**Non-toxic and safe**



**Ready to use**



**Time-saving**



**Cost-effective**

### 4.Product Information

ID	Content	Wells	Rec. load vol.	Max load vol.	EP system	TF system	Separation range
<b>U776776-A1</b>	8%	10	35 µL	70 µL	MOPS	Bis-Tris	25-270 kDa
<b>U776776-B1</b>	8%	12	25 µL	50 µL	MOPS	Bis-Tris	25-270 kDa
<b>U776776-C1</b>	8%	15	15 µL	30 µL	MOPS	Bis-Tris	25-270 kDa
<b>U776776-A2</b>	10%	10	35 µL	70 µL	MOPS	Bis-Tris	15-185 kDa
<b>U776776-B2</b>	10%	12	25 µL	50 µL	MOPS	Bis-Tris	15-185 kDa
<b>U776776-C2</b>	10%	15	15 µL	30 µL	MOPS	Bis-Tris	15-185 kDa
<b>U776776-A3</b>	12%	10	35 µL	70 µL	MOPS	Bis-Tris	10-185 kDa
<b>U776776-B3</b>	12%	12	25 µL	50 µL	MOPS	Bis-Tris	10-185 kDa
<b>U776776-C3</b>	12%	15	15 µL	30 µL	MOPS	Bis-Tris	10-185 kDa
<b>U776776-A4</b>	4-12%	10	35 µL	70 µL	MOPS	Bis-Tris	15-270 kDa
<b>U776776-B4</b>	4-12%	12	25 µL	50 µL	MOPS	Bis-Tris	15-270 kDa

U776776-C4	4-12%	15	15 µL	30 µL	MOPS	Bis-Tris	15-270 kDa
U776776-A5	4-20%	10	35 µL	70 µL	MOPS	Bis-Tris	10-270 kDa
U776776-B5	4-20%	12	25 µL	50 µL	MOPS	Bis-Tris	10-270 kDa
U776776-C5	4-20%	15	15 µL	30 µL	MOPS	Bis-Tris	10-270 kDa

## 5.Gel Separation Overview Table

4-12% MOPS	4-20% MOPS	8% MOPS	10% MOPS	12% MOPS
	270 Kd			185 Kd
270 Kd	185 Kd	270 Kd	185 Kd	140 Kd
185 Kd	140 Kd	185 Kd	140 Kd	115 Kd
140 Kd	115 Kd	140 Kd	115 Kd	80 Kd
115 Kd	80 Kd	115 Kd	80 Kd	65 Kd
80 Kd	65 Kd		65 Kd	50 Kd
65 Kd	50 Kd	80 Kd	50 Kd	40 Kd
50 Kd	40 Kd	65 Kd	40 Kd	30 Kd
40 Kd	30 Kd	50 Kd	30 Kd	25 Kd
30 Kd	25 Kd		25 Kd	
25 Kd	15 Kd	40 Kd		15 Kd
	10 Kd	30 Kd	15 Kd	10 Kd
15 Kd		25 Kd		

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