



CosmoPAGE Pre-cast Gels

produced by Nacalai USA

The CosmoPAGE pre-cast gel is ideal for protein electrophoresis. The unique formulation of polyacrylamide provides the best resolution, most strength, best transfer efficiency, and longest shelf life. CosmoPAGE pre-cast gels are available in two product lines: SDS Gel and Native Gel. Each product line has gels available in 1-well, 12-well and 17-well formats for high-throughput protein electrophoresis. CosmoPAGE SDS Gel is also available for 2D electrophoresis. CosmoPAGE Native Gel is suitable for nucleic acid electrophoresis as well.

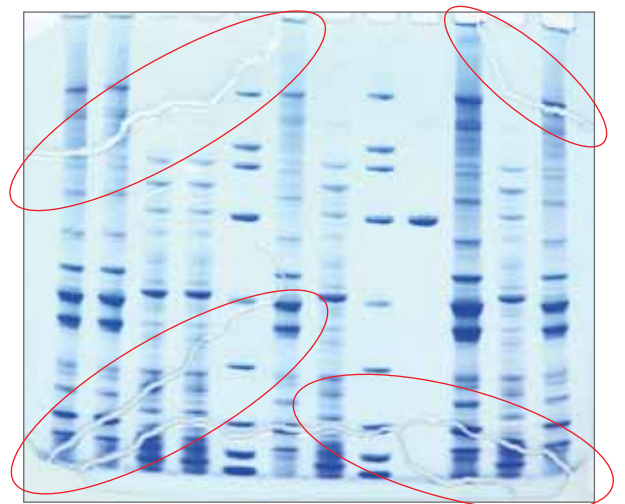
Most strength: no worry of tearing of gel when handling



no worry of cracking of gel when drying



CosmoPAGE dried 12% SDS
(Colloidal G-250 stain)



Competitor 4-12% MOPS
(Gel shrinks in alcohol)

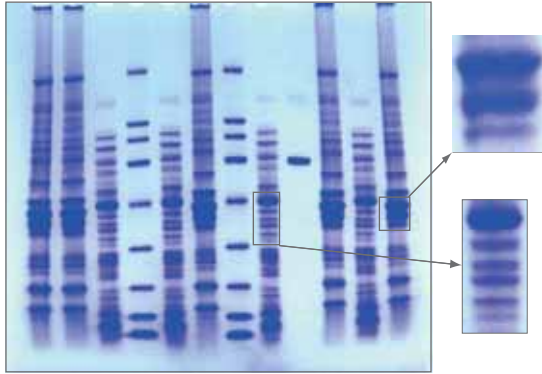
Regular acrylamide gels can tear on handling and crack on drying

Pre-cast Gels

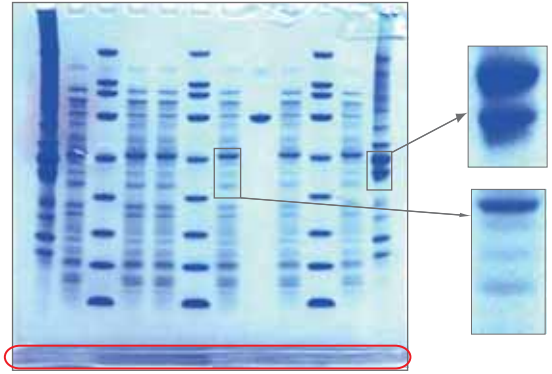
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Highest resolution : unambiguous protein band detection



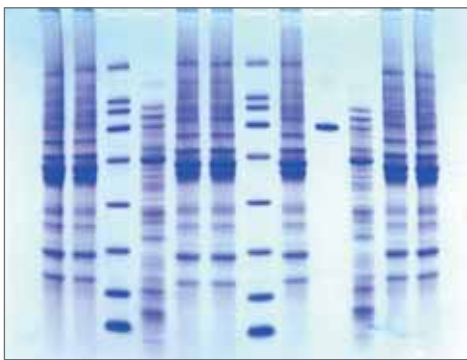
CosmoPAGE 4-20% SDS



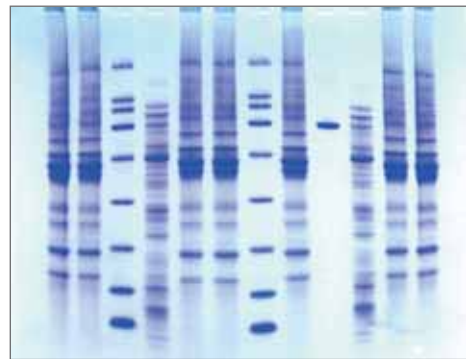
Competitor 4-12% MES

Note: "Foot" from side slot must be cut off to blot or dry gel

Longest shelf life: 18 month guarantee ensures consistent performance



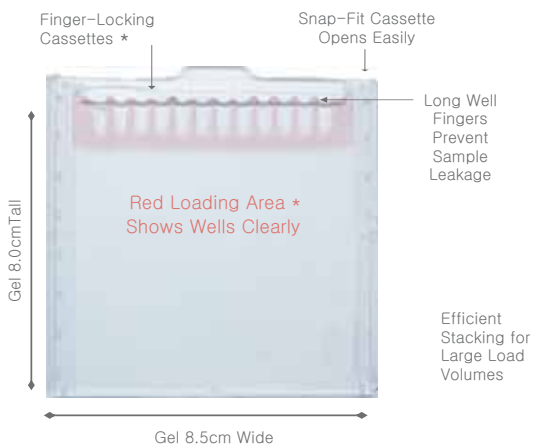
2-weeks old



1-year old

Virtually Identical Results after One Year

• Gel size



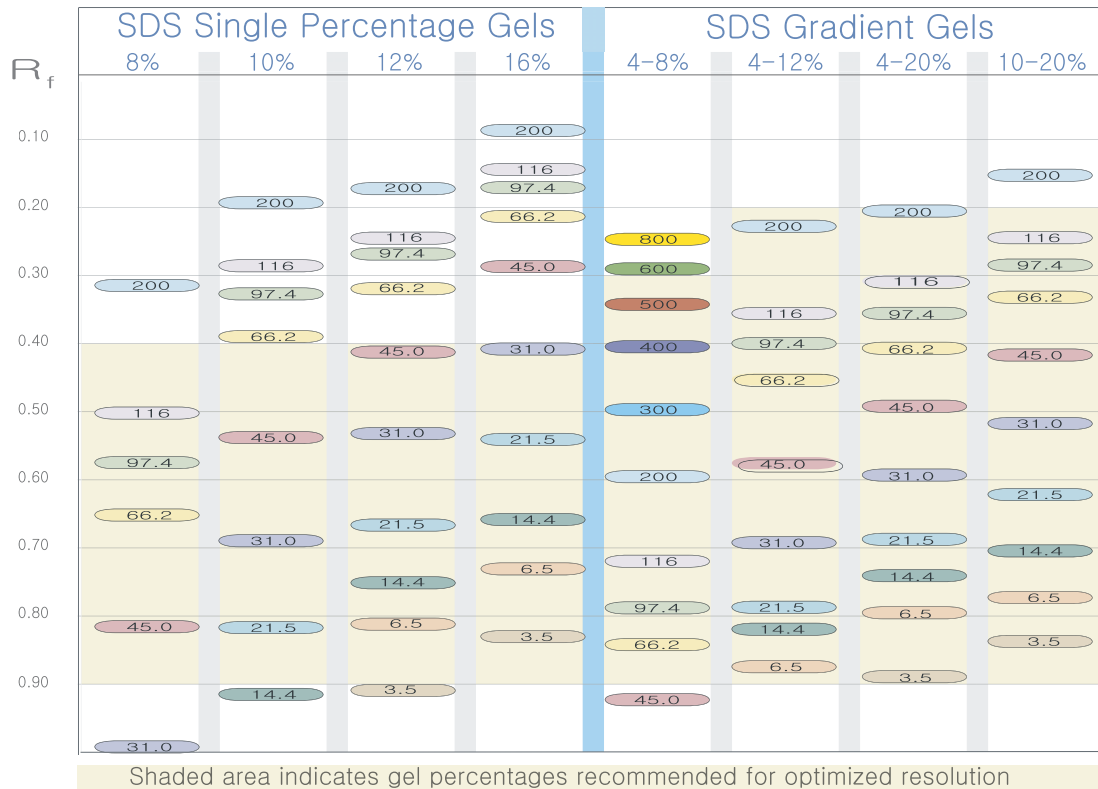
They fit into the CosmoPAGE Dual Run & Blot unit and all Invitrogen™ XCell™ units.

Pre-cast Gels

CosmoPAGE Pre-cast Gels

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• Gel selection



Electrophoresis and blotting system

CosmoPAGE Dual Run and Blot System

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The CosmoPAGE Dual Run & Blot Cell is the next generation dual functional apparatus for electrophoresis and western blotting transfer. The ingenious design allows using the same buffer core for both running and blotting gels up to 9 cm x 9 cm, as well as exploiting voltage gradient for better transfer efficiency for complete transfers of all proteins (and oligonucleotides). The inner chamber of the cell can be securely sealed outside the cell making it easier to see sample wells when loading. With symmetrical cell, the CosmoPAGE Dual Run & Blot Cell runs and blots two gels at the same speed without the hassle of difference in running time.

- Features
 - **Dual function** for both electrophoresis and blot
 - **Super transfer efficiency** for complete transfers of all proteins
 - **Secure seal** - no worry of leaking and easy to see sample wells
 - **Symmetrical design** allowing two gels to run or blot at the same speed



Pre-cast Gels

CosmoPAGE Pre-cast Gels, Dual Run and Blot System

produced by Nacalai USA

Ordering information Pre-cast Gels

Product	Storage	Cat. No.	Quantity
CosmoPAGE SDS Gel	8% 12 well 4 °C	NU00812	10 pieces
	8% 17 well 4 °C	NU00827	10 pieces
CosmoPAGE SDS Gel	10% 1 well 4 °C	NU01001	10 pieces
	10% 12 well 4 °C	NU01012	10 pieces
	10% 17 well 4 °C	NU01027	10 pieces
CosmoPAGE SDS Gel	12% 1 well 4 °C	NU01201	10 pieces
	12% 12 well 4 °C	NU01212	10 pieces
	12% 17 well 4 °C	NU01227	10 pieces
CosmoPAGE SDS Gel	16% 12 well 4 °C	NU01612	10 pieces
	16% 17 well 4 °C	NU01627	10 pieces
CosmoPAGE SDS Gel	20% 12 well 4 °C	NU02012	10 pieces
	20% 17 well 4 °C	NU02027	10 pieces
CosmoPAGE SDS Gel	4-8% 12 well 4 °C	NU40812	10 pieces
	4-8% 17 well 4 °C	NU40827	10 pieces
CosmoPAGE SDS Gel	4-12% 12 well 4 °C	NU41212	10 pieces
	4-12% 17 well 4 °C	NU41227	10 pieces
CosmoPAGE SDS Gel	4-20% 2D well 4 °C	NU42002	10 pieces
	4-20% 12 well 4 °C	NU42012	10 pieces
	4-20% 17 well 4 °C	NU42027	10 pieces
CosmoPAGE SDS Gel	10-20% 12 well 4 °C	NU82012	10 pieces
	10-20% 17 well 4 °C	NU82027	10 pieces
CosmoPAGE Native Gel	10% 12 well 4 °C	NA01012	10 pieces
	10% 17 well 4 °C	NA01027	10 pieces
CosmoPAGE Native Gel	20% 12 well 4 °C	NA02012	10 pieces
	20% 17 well 4 °C	NA02027	10 pieces
CosmoPAGE Native Gel	2-8% 12 well 4 °C	NA20812	10 pieces
	2-8% 17 well 4 °C	NA20827	10 pieces
CosmoPAGE Native Gel	3-20% 12 well 4 °C	NA32012	10 pieces
	3-20% 17 well 4 °C	NA32027	10 pieces

System

Product	Storage	Cat. No.	Quantity
Dual Run & Blot System	Room Temp.	NU00002	1 unit
Tank Assembly, Dual Run & Blot	Room Temp.	NU00011	1 unit
Lid Assembly, Dual Run & Blot	Room Temp.	NU00012	1 unit
Core Assembly, Dual Run & Blot	Room Temp.	NU00013	1 unit
Blotting Cassette w/pad 9x9 cm	Room Temp.	NU00014	1 unit
Cooling Block, Dual Run & Blot	Room Temp.	NU00015	1 unit
Buffer Dam, Dual Run & Blot	Room Temp.	NU00016	1 unit
Sponge Pad Kit, 9 x9 cm	Room Temp.	NU00017	4 /pack

Buffers

Product	Storage	Cat. No.	Quantity
LDS Sample Buffer (4x) (Lithium Dodecyl Sulfate)	10-25 °C	NU31002	2 ml
	10-25 °C	NU31010	10 ml
40% Glycerol, 4% LDS, 0.8M Triethanolamine-Cl pH 7.6, 4% Ficol-400, 0.025% Phenol Red, 0.025% Brilliant Blue G250, 2mM EDTA-2Na, pH 7.7 - 7.8 @ 25 °C			
LDS Sample Buffer (5x) (Lithium Dodecyl Sulfate)	10-25 °C	NU35008	8 ml
50% Glycerol, 5% LDS, 1.0M Triethanolamine-Cl pH 7.6, 5% Ficol-400, 0.03% Phenol Red, 0.01% Brilliant Blue G250, 2.5 mM EDTA-2Na, pH 7.7 - 7.8 @ 25 °C			
DTT Reducer (10x)	4 °C	NU32001	1 ml
SDS-Std. Run Buffer (20x)	10-25 °C	NU50042	42 ml
	10-25 °C	NU50500	500 ml
	10-25 °C	NU50525	5 L
0.8M Tricine (free base), 1.2M Tris (free base), 2% SDS, 1mM Sodium Bisulfite, pH 8.2 - 8.3 @ 25 °C			
SDS-Std. Run Buffer Reduce (20x)	10-25 °C	NU60042	42 ml
	10-25 °C	NU60500	500 ml
	10-25 °C	NU60525	5 L
0.8M Tricine (free base), 1.2M Tris (free base), 2% SDS, 50mM Sodium Bisulfite, pH 8.2 - 8.3 @ 25 °C			
SDS-Low Range Run Buffer Reduce (20x)	10-25 °C	NU13042	42 ml
	10-25 °C	NU13500	500 ml
	10-25 °C	NU13525	5 L
0.6M MOPS (free acid), 1.2M Tris (free base), 2% SDS, 50mM Sodium Bisulfite, pH 8.2 - 8.4 @ 25 °C			
Native Sample Buffer (4x)	10-25 °C	NA33002	2 ml
	10-25 °C	NA33010	10 ml
40% Glycerol, 0.38M Tris, 0.3M Acetic acid, 4% Ficol-400, 0.02% Phenol Red, 0.02% Brilliant Blue G250, 8mM EDTA-2Na, pH 7.7 - 7.8 @ 25 °C			
Native Run Buffer (20x)	10-25 °C	NA61045	45 ml
	10-25 °C	NA61500	500 ml
0.8M Tricine (free acid), 1.2M Tris (free base), 1mM Sodium Bisulfite, pH 8.2 - 8.3 @ 25 °C			
TGS Run/Blot Buffer (10x/20x)	10-25 °C	NU82500	500 ml
0.25M Tris (free base), 1.92M Glycine, 1% SDS, pH 8.5 - 8.6 @ 25 °C			
SDS Buffer Sampler Kit	4 °C	NU90002	1 kit
LDS Sample Buffer (4x) 0.5 ml DTT Reducer (10x) 0.2 ml SDS-Std. Run Buffer Reduce (20x) 42 ml			

Other products

Product	Storage	Cat. No.	Quantity
Blot Sandwich NC 90x85 mm	Room Temp.	NU19001	2 /pack
	Room Temp.	NU19020	20 /pack
Blot Sandwich PVDF 90x85 mm	Room Temp.	NU29301	2 /pack
	Room Temp.	NU29320	20 /pack
CosmoPAGE Gel Drying Solution (1x)	Room Temp.	NU04510	1 L

Molecular Weight Markers

Prestained Protein Markers for SDS-PAGE

Easy identification: alternate blue and violet stained bands

Great lot-to-lot consistency: for reliable comparison

- Features
 - Only small amount to use: high concentration of prestained proteins.
 - Marker proteins are visible during electrophoresis.
 - Prestained bands remain visible after the gel is stained (CBB, silver, negative)
 - Color remains the same even after blotting
 - For CBB staining, silver staining (1:100 dilution) and negative staining (1:100 dilution)

[Broad range]			
Approx M.W. (kDa)	Image	Protein	Color
200 -		Myosin	Blue
120 -		β-Galactosidase	Blue
91 -		Bovine Serum Albumin	Violet
62 -		Glutamate Dehydrogenase	Blue
46 -		Ovalbumin	Blue
38 -		Carbonic Anhydrase	Violet
26 -		Myoglobin	Blue
19 -		Lysozyme	Blue
9 -		Aprotinin	Blue

[High range]				[Low range]			
Approx M.W. (kDa)	Image	Protein	Color	Approx M.W. (kDa)	Image	Protein	Color
200 -		Myosin	Blue	120 -		β-Galactosidase	Blue
120 -		β-Galactosidase	Blue	94 -		Bovine Serum Albumin	Violet
91 -		Bovine Serum Albumin	Violet	47 -		Ovalbumin	Blue
48 -		Ovalbumin	Blue	37 -		Carbonic Anhydrase	Violet
34 -		Carbonic Anhydrase	Blue	28 -		Myoglobin	Blue
				19 -	Lysozyme	Violet	

• Ordering information

Product	Storage	Cat. No.	Quantity
Prestained Protein Markers (Broad Range) for SDS-PAGE	-20 °C	02525-35	500 µl
Prestained Protein Markers (High Range) for SDS-PAGE	-20 °C	26039-75	500 µl
Prestained Protein Markers (Low Range) for SDS-PAGE	-20 °C	28941-75	500 µl
	-20 °C	28944-74	5 x 100 µl

Unstained Protein Markers (10X) for SDS-PAGE

• Description

after CBB staining	M.W. (Da)	Protein
	200,000 -	Myosin
	116,250 -	β-Galactosidase
	66,200 -	Albumin Bovine
	45,000 -	Ovalbumin
	31,000 -	Carbonic Anhydrase
	21,500 -	Trypsin Inhibitor
	14,400 -	Lysozyme
6,500 -	Aprotinin	

• Ordering information

Product	Storage	Cat. No.	Quantity
Protein Markers (M.W. 6,500 - 200,000) (10x) for SDS-PAGE	-20 °C	29458-24	200 µl

Staining

Rapid Stain CBB Kit

- Quick:** staining and destaining are completed within 30 minutes
Simple: just mix the kit components with purified water
Highly sensitive: detect as little as 20ng protein

Application



Conditions

Gel : 12.5% Polyacrylamide Gel (Laemli)
 Buffer solution : Tris/Glycine buffer solution
 Electrophoresis : 30 mA constant current, 50min

Sample

Human serum
 Lane1 : marker
 Lane2 : 5,000 ng
 Lane3 : 2,500 ng
 Lane4 : 1,000 ng
 Lane5 : 750 ng
 Lane6 : 500 ng
 Lane 7 : 250 ng
 Lane 8 : 100 ng
 Lane 9 : 70 ng
 Lane10 : 40 ng
 Lane11 : 20 ng
 Lane12 : marker

Composition

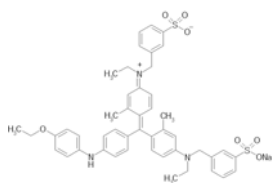
A solution : contains acetic acid
 B solution : contains ethanol and Coomassie Brilliant Blue R-250

Ordering information

Product	Storage	Cat. No.	Quantity
Rapid Stain CBB Kit (for 2L)	Room Temp.	30035-14	1 set (for 2L)

Coomassie Brilliant Blue G-250

Description



M.W. 854.02

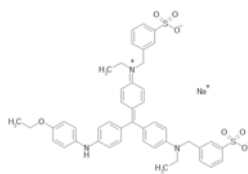
Protein stain for gel electrophoresis. Coomassie Brilliant Blue G-250 does not penetrate the gel and is three times more sensitive than Amido Black 10B (Naphthol Blue Black B). It can also be used in rapid, simple and sensitive protein concentration assays. Free amino acids and several chemicals that interfere with the Lowry procedure cause no interference when using Coomassie Brilliant Blue.

Ordering information

Product	Storage	Cat. No.	Quantity
Coomassie Brilliant Blue G-250	Room Temp.	09409-42	25 g

Coomassie Brilliant Blue R-250

Description



M.W. 825.97

Protein stain for gel electrophoresis. Coomassie Brilliant Blue R-250 is 5 to 10 times more sensitive than Amido Black 10B (Naphthol Blue Black B) and Bromophenol. As little as 0.5 µg/cm² of protein can be detected in a gel matrix. Free amino acids and several chemicals that interfere with the Lowry procedure cause no interference when using Coomassie Brilliant Blue.

Ordering information

Product	Storage	Cat. No.	Quantity
Coomassie Brilliant Blue R-250	Room Temp.	09408-52	25 g

Dispotray (for minigel staining)

Description

support from -40°C to +140 °C
 support autoclave sterilization



Ordering information

Product	Storage	Cat. No.	Quantity
Dispotray (for minigel staining)	Room Temp.	06563-44	20 pieces

Reagents for Electrophoresis

Reagents

Product	Storage	Cat. No.	Quantity
Separating Gel Buffer Solution (4X) for SDS-PAGE 1.5M-Tris-HCl, 0.4(w/v)%-SDS, pH 8.8 0.45µm filtered	Room Temp.	30651-05	500 ml
Stacking Gel Buffer Solution (4X) for SDS-PAGE 0.5M-Tris-HCl, 0.4(w/v)%-SDS, pH 6.8 0.45µm filtered	2-8°C	32158-25	500 ml
40(w/v)%-Acrylamide/Bis Mixed Solution (29:1) 0.45µm filtered preservative-free	2-8°C	00855-75	500 ml
40(w/v)%-Acrylamide/Bis Mixed Solution (37.5:1) 0.45µm filtered preservative-free	2-8°C	00856-65	500 ml
Acrylamide (monomer) 99%	Room Temp.	00809-14	100 g
	Room Temp.	00809-85	500 g
N,N'-Methylenebisacrylamide	2-8°C	22402-02	25 g

Polymerization Reagent

Product	Storage	Cat. No.	Quantity
Ammonium Peroxodisulfate 99%	2-8°C	02627-34	10 g
N,N,N',N'-Tetramethylethylenediamine [TEMED] 98%	Room Temp.	33401-72	25 g
	Room Temp.	33401-14	100 g

Product	Storage	Cat. No.	Quantity
Tris(hydroxymethyl)aminomethane 99.9%	Room Temp.	35434-05	500 g
	Room Temp.	35434-21	1 kg
	Room Temp.	35434-34	10 kg
Tris(hydroxymethyl)aminomethane Hydrochloride 99%	Room Temp.	02436-05	500 g
Tricine {N-[Tris(hydroxymethyl)methyl]glycine} 99%	Room Temp.	34713-62	25 g
	Room Temp.	34713-04	100 g
Glycine 99%	Room Temp.	17109-35	500 g
Glycerol 99%	Room Temp.	17045-65	500 ml

Denaturing agents

Product	Storage	Cat. No.	Quantity
Sodium Lauryl Sulfate (SDS) 99%	Room Temp.	31607-52	25 g
	Room Temp.	31607-94	100 g
	Room Temp.	31607-65	500 g
Guanidine Hydrochloride 99.5%	Room Temp.	17353-25	500 g
8mol/l-Guanidine Hydrochloride Solution	Room Temp.	17356-24	100ml
Urea	Room Temp.	35940-65	500 g
	Room Temp.	35940-81	1 kg

Polymerization Reagent

Product	Storage	Cat. No.	Quantity
2-Mercaptoethanol 99%	Room Temp.	21438-82	25 g
Dithiothreitol (DTT) 99.5%	2-8°C	14128-91	1 g
	2-8°C	14128-04	5 g

Reagents for Electrophoresis

Reagents

Staining

Product	Storage	Cat. No.	Quantity
Amido Black 10B	Room Temp.	02001-14	5 g
Ponceau S	Room Temp.	28322-72	25 g
Bromophenol Blue	Room Temp.	05808-32	25 g
Xylene Cyanol FF	Room Temp.	36629-64	5 g

Product	Storage	Cat. No.	Quantity
Ethylenediaminetetraacetic Acid	Room Temp.	15107-02	25 g
Boric Acid	Room Temp.	05218-62	25 g
	Room Temp.	05218-04	250 g
Running Buffer Solution (10x) for PAGE 0.25mol/l-Tris, 1.92mol/l-Glycine 0.45 μ m filtered	Room Temp.	30340-91	1 L
Running Buffer Solution (10x) for SDS-PAGE, Tris-Glycine 0.25mol/l-Tris, 1.92mol/l-Glycine, 10g/l-SDS 0.45 μ m filtered	Room Temp.	30329-61	1 L
Sample Buffer Solution with 2-ME (2x) for SDS-PAGE 0.125mol/l-Tris-HCl, 4(w/v)%-SDS, 20(v/v)%-Glycerol, 0.01(w/v)%-BPB, 10(v/v)%2-ME, pH6.8, 0.45 μ m filtered	2-8 $^{\circ}$ C	30566-22	25 ml
Sample Buffer Solution without 2-ME (2x) for SDS-PAGE 0.125mol/l-Tris-HCl, 4(w/v)%-SDS, 20(v/v)%-Glycerol, 0.01(w/v)%-BPB, pH6.8, 0.45 μ m filtered	2-8 $^{\circ}$ C	30567-12	25 ml

For research use only, not intended for diagnostic or drug use.

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