

Product No. 07831

WIDE RANGE Gel Preparation Buffer(4x) for PAGE

Features

- WIDE RANGE Gel Preparation Buffer is a 4X concentrated neutral pH buffer for preparation of both stacking and separating gels with the same simple protocol as casting a single percentage gel.
- It offers wide separation range of proteins just like a gradient gel.
- The improved gel stability provides a longer shelf life than the gel with Laemmli buffer system.
- The increased tensile strength allows easy handling even a low percentage gel.

Protocol

- Replace the Tris-HCl buffer in Laemmli buffer system with this buffer for preparation of both stacking gel and separating gel.
- Use the same running buffer and sample buffer as the ones for Laemmli gel.

Attention

- This buffer does not contain SDS.
- Sil-Best Stain One (Product No.06865) is recommended for silver staining. If a high background is observed with other silver staining products, a longer fixing step (over 40 minutes) may decrease the background.

Storage

2 – 8 °C

Expiration

Two years from manufacturing. Expiration date is stated on the product label (Exp. yy / mm)

Packing

250ml (Product No.07831-94)

Reference

Laemmli, U. K. : Nature, 227, 680, (1970)

<This document is not attached to the product>

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Preparation of polyacrylamide gel

Preparation with 40(w/v)%-Acrylamide/Bis Mixed Solution

Separating gel

unit : ml

Concentration of Acrylamide	Solution	10ml	20ml	30ml	40ml
6%	Purified water	5.9	11.8	17.7	23.6
	40(w/v)%-Acrylamide/Bis Mixed Solution	1.5	3.0	4.5	6.0
	WIDE RANGE Gel Preparation Buffer(4x)	2.5	5.0	7.5	10.0
	10(w/v)%-Ammonium Peroxodisulfate Solution	0.1	0.2	0.3	0.4
	TEMED	0.008	0.016	0.024	0.032
8%	Purified Water	5.4	10.8	16.2	21.6
	40(w/v)%-Acrylamide/Bis Mixed Solution	2.0	4.0	6.0	8.0
	WIDE RANGE Gel Preparation Buffer(4x)	2.5	5.0	7.5	10.0
	10(w/v)%-Ammonium Peroxodisulfate Solution	0.1	0.2	0.3	0.4
	TEMED	0.006	0.012	0.018	0.024
10%	Purified Water	4.9	9.8	14.7	19.6
	40(w/v)%-Acrylamide/Bis Mixed Solution	2.5	5.0	7.5	10.0
	WIDE RANGE Gel Preparation Buffer(4x)	2.5	5.0	7.5	10.0
	10(w/v)%-Ammonium Peroxodisulfate Solution	0.1	0.2	0.3	0.4
	TEMED	0.006	0.012	0.018	0.024
12%	Purified Water	4.4	8.8	13.2	17.6
	40(w/v)%-Acrylamide/Bis Mixed Solution	3.0	6.0	9.0	12.0
	WIDE RANGE Gel Preparation Buffer(4x)	2.5	5.0	7.5	10.0
	10(w/v)%-Ammonium Peroxodisulfate Solution	0.1	0.2	0.3	0.4
	TEMED	0.006	0.012	0.018	0.024
15%	Purified Water	3.6	7.3	10.9	14.6
	40(w/v)%-Acrylamide/Bis Mixed Solution	3.8	7.5	11.3	15.0
	WIDE RANGE Gel Preparation Buffer(4x)	2.5	5.0	7.5	10.0
	10(w/v)%-Ammonium Peroxodisulfate Solution	0.1	0.2	0.3	0.4
	TEMED	0.006	0.012	0.018	0.024

Stacking gel

unit : ml

Concentration of Acrylamide	Solution	2ml	4ml	6ml	8ml
3%	Purified Water	1.33	2.66	3.99	5.32
	40(w/v)%-Acrylamide/Bis Mixed Solution	0.15	0.30	0.45	0.60
	WIDE RANGE Gel Preparation Buffer(4x)	0.50	1.00	1.50	2.0
	10(w/v)%-Ammonium Peroxodisulfate Solution	0.02	0.04	0.06	0.08
	TEMED	0.002	0.004	0.006	0.008

Preparation with 30(w/v)%-Acrylamide/Bis Mixed Solution

Separating gel

unit : ml

Concentration of Acrylamide	Solution	10ml	20ml	30ml	40ml
6%	Purified water	5.4	10.8	16.2	21.6
	30(w/v)%-Acrylamide/Bis Mixed Solution	2.0	4.0	6.0	8.0
	WIDE RANGE Gel Preparation Buffer(4x)	2.5	5.0	7.5	10.0
	10(w/v)%-Ammonium Peroxodisulfate Solution	0.1	0.2	0.3	0.4
	TEMED	0.008	0.016	0.024	0.032
8%	Purified Water	4.7	9.5	14.2	18.9
	30(w/v)%-Acrylamide/Bis Mixed Solution	2.7	5.3	8.0	10.7
	WIDE RANGE Gel Preparation Buffer(4x)	2.5	5.0	7.5	10.0
	10(w/v)%-Ammonium Peroxodisulfate Solution	0.1	0.2	0.3	0.4
	TEMED	0.006	0.012	0.018	0.024
10%	Purified Water	4.1	8.1	12.2	16.3
	30(w/v)%-Acrylamide/Bis Mixed Solution	3.3	6.7	10.0	13.3
	WIDE RANGE Gel Preparation Buffer(4x)	2.5	5.0	7.5	10.0
	10(w/v)%-Ammonium Peroxodisulfate Solution	0.1	0.2	0.3	0.4
	TEMED	0.006	0.012	0.018	0.024
12%	Purified Water	3.4	6.8	10.2	13.6
	30(w/v)%-Acrylamide/Bis Mixed Solution	4.0	8.0	12.0	16.0
	WIDE RANGE Gel Preparation Buffer(4x)	2.5	5.0	7.5	10.0
	10(w/v)%-Ammonium Peroxodisulfate Solution	0.1	0.2	0.3	0.4
	TEMED	0.006	0.012	0.018	0.024
15%	Purified Water	2.4	4.8	7.2	9.6
	30(w/v)%-Acrylamide/Bis Mixed Solution	5.0	10.0	15.0	20.0
	WIDE RANGE Gel Preparation Buffer(4x)	2.5	5.0	7.5	10.0
	10(w/v)%-Ammonium Peroxodisulfate Solution	0.1	0.2	0.3	0.4
	TEMED	0.006	0.012	0.018	0.024

Stacking gel

unit : ml

Concentration of Acrylamide	Solution	2ml	4ml	6ml	8ml
3%	Purified Water	1.28	2.56	3.84	5.12
	30(w/v)%-Acrylamide/Bis Mixed Solution	0.20	0.40	0.60	0.80
	WIDE RANGE Gel Preparation Buffer(4x)	0.50	1.00	1.50	2.00
	10(w/v)%-Ammonium Peroxodisulfate Solution	0.02	0.04	0.06	0.08
	TEMED	0.002	0.004	0.006	0.008

Required Reagents for preparation of above gel

Product Name	Product No.	Grade
WIDE RANGE Gel Preparation Buffer(4x) for PAGE	07831	SP
40(w/v)%-Acrylamide/Bis Mixed Solution(29:1)	06119	SP
40(w/v)%-Acrylamide/Bis Mixed Solution(37.5:1)	06121	SP
30(w/v)%-Acrylamide/Bis Mixed Solution(29:1)	06141	SP
30(w/v)%-Acrylamide/Bis Mixed Solution(37.5:1)	06144	SP
10(w/v)%Ammonium Peroxodisulfate Solution	02634	SP
N,N,N',N'-Tetramethylethylenediamine (TEMED)	33401	SP