

Staining Reagents

2D-Silver Stain II

Even first time users can enjoy high sensitivity detection with easy to use 2-D Silver Stain II. Even staining, low background, high contrast bands.

- Rapid staining results in an hour after electrophoresis.
- Staining with higher sensitivity
 - For proteins...50 to 100 times more sensitive than CBB staining
 - For nucleic acids...50 to 100 times more sensitive than EB staining
- Simple preparation and simple operation.
- Safe operation. No heavy metals except silver



Application

Use for staining proteins or nucleic acids separated by PAGE or SDS-PAGE with sensitivities far better than Coomassie Blue or ethidium bromide.

Reproducibility	◎
Applicability	○
Contrast	◎

Components

Reagent	Active ingredients	Volume
① Fixing Reagent	Thiourea	100 mL
② Pretreatment Reagent	Dithiothreitol, Glutar-aldehyde, Thiourea	100 mL
③ Staining Solution A	Silver nitrate	100 mL
④ Staining Solution B	Ammonium hydroxide, Sodium hydroxide	100 mL
⑤ Concentrated developer	Citric acid, Formaldehyde, Sodium thiosulfate	100 mL
⑥ Stopper	Citric acid	100 mL

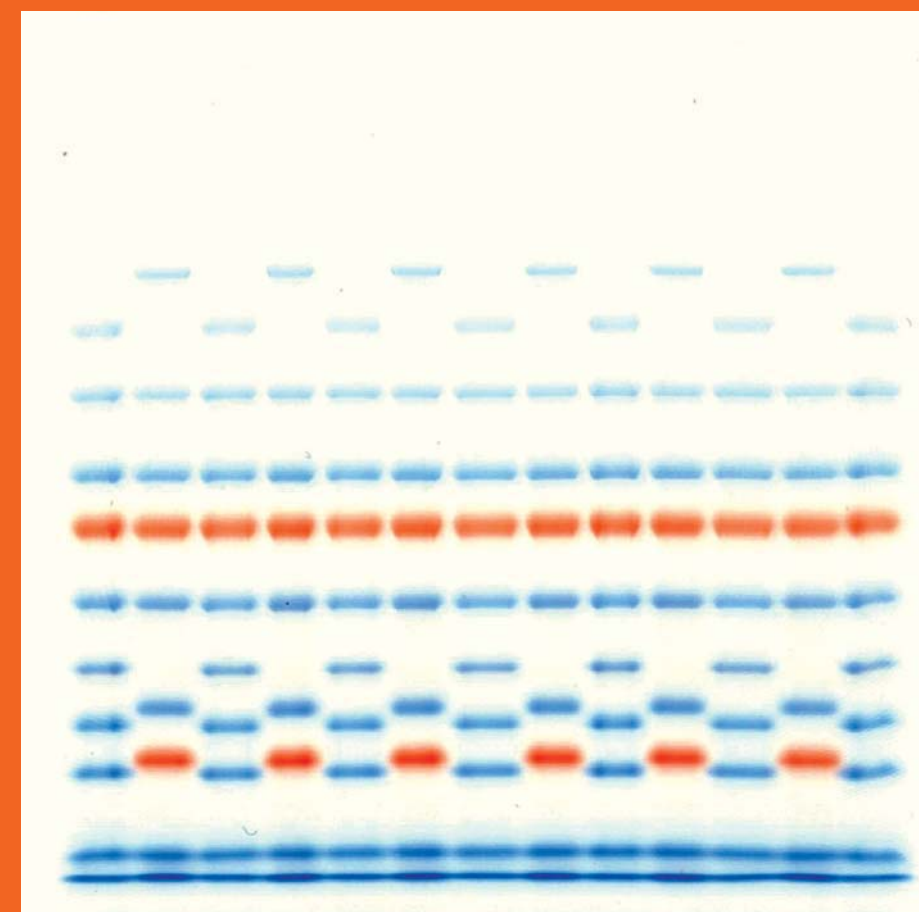
Description	Cat. No.	PKG	Price
2D-SILVER STAIN II	DCB-423413	1 Pack (for 10 gels)	



COSMO BIO CO., LTD.
Inspiration for Life Science

Multigel® II

1. Very sharp banding with new comb design
2. High band resolution from gel top to gel bottom
3. Always fresh and ready to use



2-15% Gel



COSMO BIO CO., LTD.
Inspiration for Life Science

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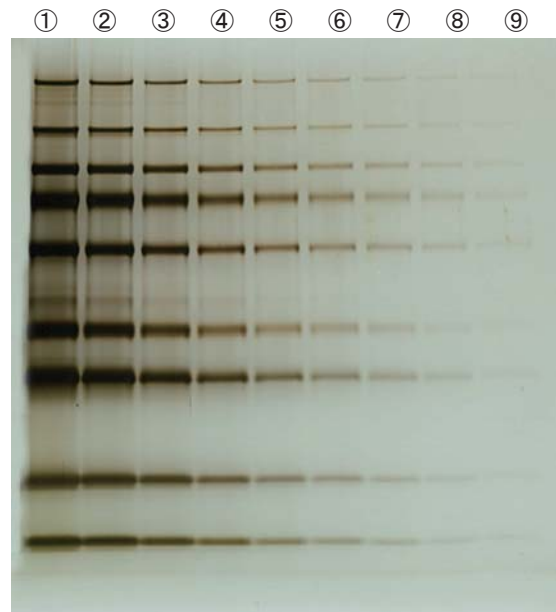
FAX : +81-3-5632-9618

Note: For Research Use Only

Not for use as a therapeutic, diagnostic. Do not eat.

Sample Protein Stains

10-20% Gel 2D-SILVER STAIN



Running Conditions

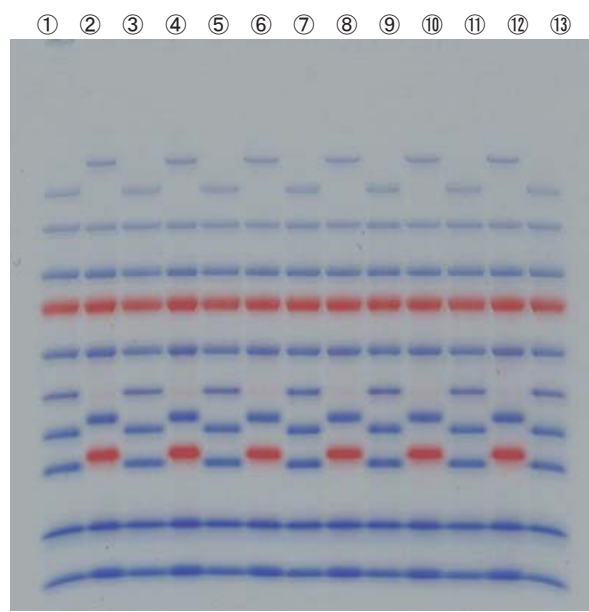
- Loading buffer: Tris SDS β-ME loading buffer
- Sample: PageRuler™ Prestained Protein Ladder (#SM1811, Fermentas UAB)

①	x4	⑥	x128
②	x8	⑦	x256
③	x16	⑧	x512
④	x32	⑨	x1024
⑤	x64		

3μL each lane

- Electrode buffer: SDS-Tris-Glycine
- Running time: 30 mA constant current, about 50 min.
- Staining Method: 2D-Silver Stain

4-20% Gel with Prestained MW Marker



Running conditions

- Sample: PageRuler™ Prestained Protein Ladder (#SM0671, Fermentas UAB) ... Odd lanes
- PageRuler™ Prestained Protein Ladder Plus (#SM1811, Fermentas UAB) ... Even lanes
- Electrode buffer: SDS-Tris-Glycine
- Running time: 30 mA constant current, about 60 min.

Running conditions of gel pictured on front page are same as those above.

Multigel® II General Specifications

Protein detection limits (native and denatured)

	Concentration per well	Concentration	e.g., Human Serum
CBB stain	1-10 μg	200-2,000 μg/mL	10-50x dilution
2D Silver Stain	20-200 ng	4-40 μg/mL	200-800x dilution

5μL per well

DNA detection limits

	Concentration per well	Concentration
EtBr staining	0.5-1 μg	100-200 μg/mL
2D Silver Stain	50-100 ng	10-20 μg/mL

5μL per well

Running Condition

	Electric current	Running time
PAGE	15 mA	About 100 min.
SDS-PAGE*	30 mA	About 60 min.
DNA	15 mA	About 100 min.

* For constant voltage electrophoresis, 200V about 60 min.

Well loading volumes

Gel Type	Recommendation
13 well	10 μL or less
17 well	sample well (16)
	marker well (1)

Multigel® II Mini Precast Gels (for protein and DNA)

Gradient Gels

Description	Number of Wells	Acrylamide concentration	MW (Dalton) (SDS-PAGE)	MW*2 (DNA)	Catalog No.	gels/box	Price
Multigel II Mini 2/15 (13W)	13	2-15%	30-500K	200-2,000	DCB-414855	5	
Multigel II Mini 2/15 (17W)	17				DCB-414862	5	
Multigel II Mini 4/20 (13W)	13	4-20%	15-250K	40-1,800	DCB-414879	5	
Multigel II Mini 4/20 (17W)	17				DCB-414886	5	
Multigel II Mini 5/10 (13W)	13	5-10%	35-450K	—	DCB-441776	5	
Multigel II Mini 5/10 (17W)	17				DCB-443114	5	
Multigel II Mini 8/16 (13W)	13	8-16%	20-200K	70-1,500	DCB-417269	5	
Multigel II Mini 8/16 (17W)	17				DCB-417276	5	
Multigel II Mini 10/20 (13W)	13	10-20%	12-130K	30-1,500	DCB-414893	5	
Multigel II Mini 10/20 (17W)	17				DCB-414909	5	
Multigel II Mini 15/20 (13W)	13	15-20%	3-85K*3	—	DCB-432026	5	
Multigel II Mini 15/20 (17W)	17				DCB-443121	5	
Multigel II Mini 15/25 (13W)	13	15-25%	3-85K*3	20-1,000	DCB-414916	5	
Multigel II Mini 15/25 (17W)	17				DCB-414923	5	

Fixed Percentage Gels

Description	Number of Wells	Acrylamide concentration	MW *1 (SDS-PAGE)	MW*2 (DNA)	Catalog No.	gels/box	Price
Multigel II Mini 5 (13W)	13	5%	100-500K	—	DCB-443138	5	
Multigel II Mini 5 (17W)	17				DCB-443145	5	
Multigel II Mini 7.5 (13W)	13	7.5%	45-250K	250-2,000	DCB-414930	5	
Multigel II Mini 7.5 (17W)	17				DCB-414947	5	
Multigel II Mini 10 (13W)	13	10%	30-200K	140-1,700	DCB-414954	5	
Multigel II Mini 10 (17W)	17				DCB-414961	5	
Multigel II Mini 12.5 (13W)	13	12.5%	20-150K	60-1,500	DCB-414978	5	
Multigel II Mini 12.5 (17W)	17				DCB-414985	5	
Multigel II Mini 15 (13W)	13	15%	10-150K	—	DCB-443152	5	
Multigel II Mini 15 (17W)	17				DCB-443169	5	

Narrow Range Gradient Gels

Description	Number of Wells	Acrylamide concentration	MW *1 (SDS-PAGE)	MW*2 (DNA)	Catalog No.	gels/box	Price
Multigel II Mini 6 / 9 (13W)	13	6-9%	45-250K	250-2,000	DCB-414992	5	
Multigel II Mini 6 / 9 (17W)	17				DCB-415005	5	
Multigel II Mini 9 / 11 (13W)	13	9-11%	30-200K	140-1,700	DCB-415012	5	
Multigel II Mini 9 / 11 (17W)	17				DCB-415029	5	
Multigel II Mini 11/14 (13W)	13	11-14%	20-150K	60-1,500	DCB-415036	5	
Multigel II Mini 11/14 (17W)	17				DCB-415043	5	
Multigel II Mini 14/16 (13W)	13	14-16%	15-100K	40-1,200	DCB-415050	5	
Multigel II Mini 14/16 (17W)	17				DCB-415067	5	

Multigel® II Precast Gels Medium and Large (For protein and DNA)

Description	Number of Wells	Acrylamide concentration	Catalog No.	gels/box	Price
Multigel II Med 4/20 (17W)	17	4-20%	DCB-417290	5	
Multigel II Med 10/20 (17W)	17	10-20%	DCB-417306	5	
Multigel II Large 4/20 (17W)	17	4-20%	DCB-417320	5	
Multigel II Large 10/20 (17W)	17	10-20%	DCB-417337	5	

* 1: Daltons

* 2: Base pair

* 3: Not that linearity of migration vs. MW may be compromised for peptides less than 6.5 KDa.

Multigel II precast gels are an improved version of the Laemmli method. Please refer to instruction manual included with each product for proper use.

	Mini Gel	Medium Format Gel	Large Format Gel
Size(mm)	85(W)×90(L)×0.9(t)	144(W)×145(L)×0.9(t)	184(W)×85(L)×0.9(t)
Plate Size(mm)	100(W)×100(L)×3.1(t)	160(W)×160(L)×5.1(t)	200(W)×200(L)×5.1(t)

Storage: 2-10°C

Do not freeze