Electrophoresis Reagents

Gel Staining Reagent

Gel Negative Stain kit [for Electrophoresis] 1kit [G0615]

Negative staining is a detection method for SDS-PAGE-separated proteins in which only regions of gel not containing proteins are stained white, while protein-containing regions remain transparent. After staining, the gel can be easily destained with a destaining solution and transferred to a membrane.

Advantages

- Rapid Staining (approx. 20 minutes)
- Highly Sensitive
- Allows the use of Destained Gels in Downstream Experiments
- Stains 20* Gels per Kit
  *90 x 90 x 1 mm gel

Directions for Use

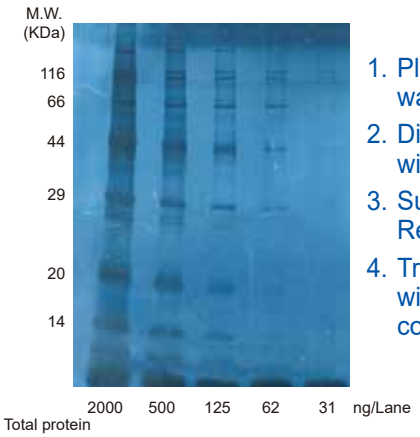
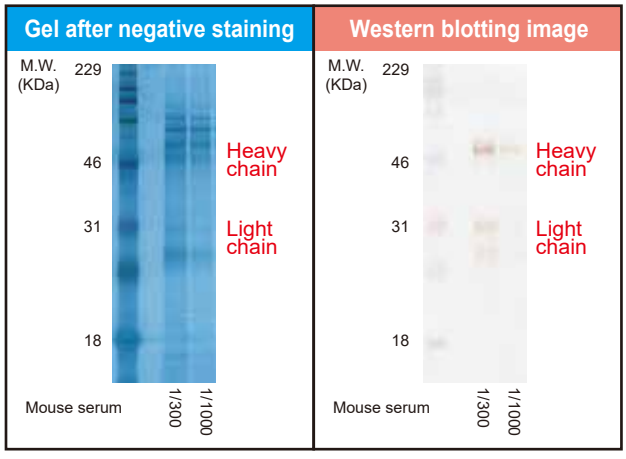


Figure. Gel stained by the method described at right.

1. Place the post-SDS-PAGE gel in a tray containing enough deionized water to cover the gel and shake for 10 minutes.
2. Discard the deionized water, add enough solution A (diluted 10 times with deionized water) to cover the gel and shake for 5 minutes.
3. Submerge gel in deionized water for 10 seconds to wash. Repeat three times.
4. Transfer the gel to a new tray, add enough solution B (diluted 10 times with deionized water) to cover the gel and shake for 1 minute to develop color.

Directions for Use (preparation of gel for Western Blotting)



1. Place the stained and photographed gel in a tray containing solution C diluted 10-fold with deionized water.
2. Shake the gel until the color is removed.
3. Discard solution C, add enough deionized water to cover the gel and wash for 30 seconds. Repeat three times.
4. Transfer the washed gel to a membrane (PVDF).

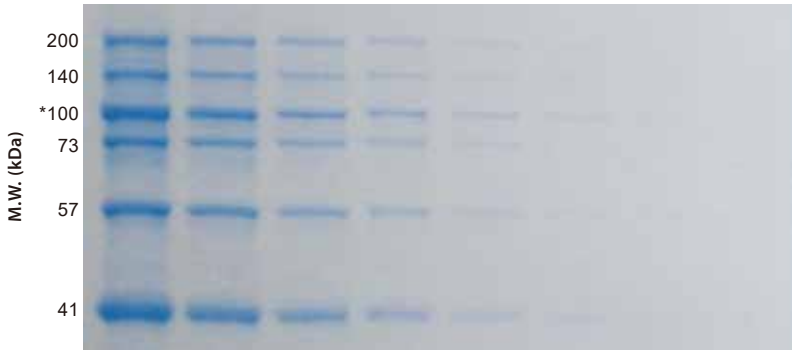
Primary Antibodies：
Goat Anti-Mouse IgG Biotin [G0387]
Secondary Antibodies：
Streptavidin HRP Conjugate [S0972]
Chromogenic Substrate：
3,3'-Diaminobenzidine (DAB) [D3756]

Protein Staining Reagent

Coomassie Brilliant Blue G-250 (Ready-to-use solution) [for Electrophoresis] 500mL [C3488]

Application

1. After electrophoresis, wash the gel with deionized water for 5 minutes three times.
2. Remove the water used for washing, add **C3488** till the gel is soaked, and let the gel stain for 1 hour while shaking gently at room temperature.
3. Remove the staining solution, destain the gel with deionized water for 1 hour and check it.
4. If the background is high, destain the gel with deionized water overnight at room temperature.



each protein content (*Content of 100kDa protein is double.)	500	250	125	62.5	31.3	15.6	7.8	3.9	(ng/lane)

Figure. Proteins stained by the above method (destained overnight)

Nucleic Acid Staining Reagent

Ethidium Bromide (0.5mg/mL in Water) (in Dropper Bottle) [for Electrophoresis] 10mL [E1363]

Each drop contains 20 µg of Ethidium Bromide, so you can easily adjust the solution as final concentration. Convenient and safe to use because of dropper bottle.

Application

After electrophoresis, dilute **E1363** (1 drop / 40 mL) to 0.5 µg/mL with water or running buffer and incubate the gel for 15 minutes If you have to decrease background fluorescence, wash the gel in water for 15 minutes. In use of electrophoresis buffer solution, Ethidium Bromide incorporated into nucleic acid and can visualize band immediately by using UV transilluminator.

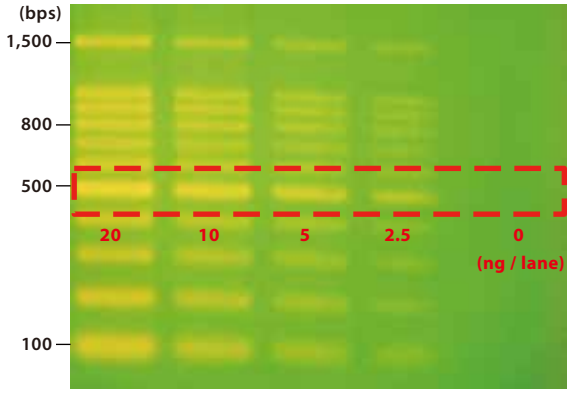


Figure. DNA Ladder Marker stained by the above method (destained 15 minutes)

Nucleic Acid Staining Reagent

10X Nucleic Acid Stain Blue [for Electrophoresis] 100mL [N1209]

Used to stain nucleic acids after agarose gel electrophoresis. As nucleic acids are stained blue, no transilluminator or other detection device is required. Unlike ethidium bromide, it is non-mutagenic and therefore safe and easy to handle.

Directions for Use

λDNA 200 100 50 25 12.5 ng/Lane

Figure. Gels stained as described on the right (after overnight washing).

1. Prepare **N1209** diluted 10 times with deionized water.
2. After electrophoresis, immerse the gel in the diluted **N1209** and shake for 10 minutes.
3. Discard the staining solution and shake the gel with deionized water for 30 minutes and wash the gel. Repeat the wash step if background is high.

Nucleic Acid Sample Preparation Reagents for Electrophoresis

6X Loading Buffer Bromophenol Blue [for Electrophoresis] [for Molecular Biology]
(1 mL×3) 1set [L0393]

6X Loading Buffer Double BX [for Electrophoresis] [for Molecular Biology]
(1 mL×3) 1set [L0440]

SDS-PAGE Sample Buffers

Sample buffers are available in three different concentrations to allow for easy use with any sample volume. No reducing agent is included - add as required. A red sample buffer is also available to help prevent sample mix-up.

2X SDS-PAGE Sample Buffer (2-Mercaptoethanol free) 25mL [B5834]
4X SDS-PAGE Sample Buffer (2-Mercaptoethanol free) 20mL [B6104]
6X Sample Buffer (2-Mercaptoethanol free) 10mL [B6105]
2X SDS-PAGE Sample Buffer Phenol Red (2-Mercaptoethanol free) 25mL [B6110]

Directions for Use

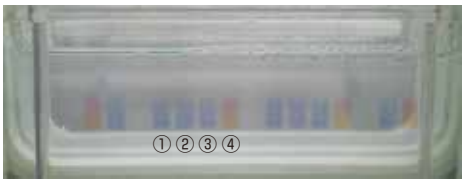


Figure. View during gel application.

Electrophoresis samples were prepared and applied to acrylamide gels using each of the following sample buffers.

① **2X SDS-PAGE Sample Buffer**
② **4X SDS-PAGE Sample Buffer**
③ **6X Sample Buffer**
④ **2X SDS-PAGE Sample Buffer Phenol Red**

Reagents for Gel Preparation, Buffer Preparation, etc.

30% Acrylamide / Bis-acrylamide (29:1)	250mL [A3217]
30% Acrylamide / Bis-acrylamide (37.5:1)	250mL [A3218]
Acrylamide Monomer	25g / 500g [A1132]
Ammonium Peroxodisulfate	5g / 25g [A2098]
Bromophenol Blue Sodium Salt (= BPB)	1g [B3195]
DL-Dithiothreitol (= DL-DTT)	1g / 5g [D3647]
Glycerol	1g [G0316]
Glycine	25g / 500g [G0317]
2-Mercaptoethanol	5g / 25g [M1948]
***N,N'*-Methylenebisacrylamide**	25g / 100g [M0506]
Sodium Dodecyl Sulfate (= SDS)	25g / 500g [S0588]
***N,N,N',N'*-Tetramethylethylenediamine (= TEMED)**	5g / 25g [T2515]
1-Thioglycerol	5g / 25g [T3843]
Tris(hydroxymethyl)aminomethane (= Tris-Base)	25g / 500g [T2516]

Reagents for Protein Staining and Others

Acid Black 1 (= Amido Black 10B)	5g [A2097]
Acid Red 112 (= Ponceau S)	1g / 5g [A2256]
Coomassie Brilliant Blue G-250	5g [B3193]
Coomassie Brilliant Blue R-250	5g [B3194]
Fast Green FCF	5g [F0718]
Sodium Deoxycholate	25g [D1820]
6-Aminohexanoic Acid	5g / 25g [A2255]

For further information please refer to our website at www.TCIchemicals.com. ▶▶▶ TCI electrophoresis

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