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Product Data Sheet

Coomassie Brilliant Blue Staining Solution

Catalog #	Source	Reactivity	Applications
CRG1125			SDS-PAGE/Native PAGE

Description

Coomassie Brilliant Blue Staining Solution is suitable for rapid, high-sensitivity staining of protein electrophoresis gels such as SDS-PAGE or native PAGE, as well as for detecting residual proteins on PAGE gels after Western blot transfer.

Components

Coomassie Brilliant Blue Staining Solution uses 5% Coomassie Brilliant Blue G250 as the dye.

Directions for Use

Conventional Staining and Destaining Method

1. After electrophoresis, place the polyacrylamide gel into an appropriate amount of Coomassie Brilliant Blue R250 staining solution, ensuring the solution just covers the gel.
2. Stain at room temperature on a horizontal shaker for 4-12 hours. The staining time can be reduced by moderately increasing the temperature.
3. Pour off the staining solution and add sufficient Coomassie Brilliant Blue destaining solution to cover the gel. Destain at room temperature for 4-12 hours until the gel background becomes clear and distinct dark blue protein bands are visible. Replace the destaining solution as needed during this process.

Rapid Staining and Destaining Method

1. After electrophoresis, briefly rinse the polyacrylamide gel twice with distilled water. Add an appropriate amount of Coomassie Brilliant Blue R250 staining solution, ensuring it just covers the gel. Heat in a microwave until the solution is nearly boiling, then immediately stop heating. Caution: Boiling may cause the gel to crack or break.
2. While the staining solution is still warm, stain on a horizontal shaker for about 5 minutes, or until clear protein bands become visible.
3. Pour off the staining solution and add sufficient Coomassie Brilliant Blue destaining solution to cover the gel. Heat in a microwave on low power until nearly boiling, then stop immediately. Note: As above, boiling may damage the gel.

4. While the destaining solution remains warm, destain on a horizontal shaker for 20-30 minutes. Replace the destaining solution 2-3 times during this period. Continue microwaving and shaking until the blue background is largely removed and protein bands reach the desired staining intensity.

5. After destaining is complete, the gel can be stored in water or a 20% glycerol aqueous solution for immediate imaging. For long-term preservation, the gel can be dried.

Precautions for Use

1. For gels with a concentration of less than 10%, handle with care to avoid cracking or breakage.

2. When using the rapid staining and destaining method, note that both the staining and destaining solutions contain alcohol. Use low microwave power and observe safety precautions.

3. During operation, wear a lab coat and disposable gloves.

Storage

Store protected from light at 4°C. Valid for one year.