

One Step Protein Gel Staining Solution (Coomassie Blue)

Cat #: D-AKE105

Size: 250mL*2

Storage: Store at 4°C for 12 months.protected from light

Product Information

Applications: SDS-PAGE gel electrophoresis, Non-denaturing PAGE gel electrophoresis, Precast Gel

Storage: Store at 4°C for 12 months.protected from light

Assay Principle

Coomassie blue is a commonly used dye for the visualization of proteins (separated by protein gel electrophoresis). Under acidic conditions, Coomassie blue binds to the alkaline and hydrophobic amino acid residues of the protein, and the color is dark blue. The ready to use One Step Protein Gel Staining Solution (Coomassie Blue) developed has the advantages of short dyeing time, clear color rendering, good repeatability and high safety, and a clear and clean background can be obtained without decolorization. Based on the classical Coomassie blue staining principle, the target proteins recovered after staining can be used for subsequent mass spectrometry experiments or sequencing analysis.

Unique Advantage	Mechanism	Application Experience
Fast response	Mainly contains uniquely developed dyes	Dyeing can be done in as fast as 10 min (100 ng protein bands appeared after 15 min, 50 ng bands after 60 min, dyeing overnight, the sensitivity could reach 10 ng)
High security	Add unique non-toxic optimized ingredients	No need for decolorization, and no need for immobilization of methanol and ethanol
High sensitivity	Add signal-enhancing dye components	Can detect proteins as low as 10 ng
Easy to operate	Ready to use	No need to prepare, can be used directly
Perfect repeatability	Excellent performance	It is suggested to be reused for 3 times at most

Assay Procedure

1. After electrophoresis, rinse the gel with deionized water 3 times, carefully remove the deionized water and wash away other substances in the gel to reduce the background.

2. Add 20-30 mL One Step Protein Gel Staining Solution (Coomassie Blue) to cover the gel, and the staining was carried out on a horizontal or side shaking table at room temperature. The optimal staining time at room temperature is 30-60 min. The actual staining time can be adjusted according to the staining effect. If the protein content is low, the staining time can be appropriately extended or the staining time can be overnight until clear target bands can be seen. At room temperature (20-25°C), 100 ng protein bands appeared after 15 min, 50 ng bands after 60 min, Dyeing overnight, the sensitivity could reach 10 ng. **This product can be reused for 3 times at most. The sensitivity of the second time will not decrease. The sensitivity will decrease when the product is repeated for the third times. It is suggested to prolong the staining time appropriately according to the actual staining effect.**

3. After dyeing, carefully discard the staining solution, add deionized water to wash and remove the remaining staining solution, and then observe the results and take photos. To obtain clearer protein bands, rinse with deionized water every 30 min and repeat about 3 times to obtain a gel with a very low background.

Note: The washing times and dyeing time mentioned above are suitable for 0.75 mm to 1.5 mm gels, and for thicker gels, the dyeing time needs to be appropriately extended. For gels with Tris-Glycine system, it is suggested to consider whether to decolorize according to the actual staining effect; for gels with other buffer systems (such as HEPES, MOPS, etc.), it is suggested to consider whether to prolong the staining time and clean with deionized water according to the actual staining effect.

Precautions

1. Protein Gel Fast Staining Solution contains volatile substances, please seal it to ensure its performance.
2. When using Protein Gel Fast Staining Solution, you need to prepare deionized water and Staining container before the experiments.

Disclaimer

The reagent is only used in the field of scientific research, not suitable for clinical diagnosis or other purposes.