EXREsolve™ Blue Protein Staining Reagent

Catalog Number: EXBR054
Size: 250 mL

For Research Use Only. Not Intended for Diagnostic or Therapeutic Use.

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Product Description

EXREsolve™ Blue Protein Staining reagent provides fast, highly sensitive nanogram-level detection and low background staining of proteins in SDS-PAGE gels as an alternative to Coomassie Brilliant Blue without hazardous methanol, acetic acid or trichloroacetic acid. The formulation is non-toxic to the environment and does not require using harmful solvents.

It is provided as a ready-to-use formulation where a 10 ng protein band may be observed in as little as 15 minutes. Sensitivity may be improved with further extension of the staining time. Clear bands are observed immediately after staining, with destaining in deionized water further reducing the background and improving the signal-to-noise ratio.

Limitations

- For Research Use Only. Not Intended for Diagnostic or Therapeutic Use.

Precautions

- Always wear appropriate protective clothing and follow safe laboratory procedures.

Storage

Store at 2-8°C for up to 12 months.
Shipped at ambient temperature.

Protocol

1. **Wash the gel.** Place the SDS-PAGE gel in a clean container and add 300-400 mL deionized water to wash the gel. Place on a shaker for 5 minutes. Repeat wash steps 3 times. If native PAGE gel, rinse with deionize water for 5 minutes.
   Note: SDS inhibits the binding of the staining solution to protein. Therefore, sufficient washing is required. If the gel thickness is >1 mm or gel is > 15%, it is recommended to wash 3 times at 10 minutes per wash. For large gels, use at least 5 mL deionized water per square centimeter.
2. **Stain the gel.** Shake the EXREsolve Blue Staining bottle before use. Discard the deionized water from the final wash step and add sufficient Blue Staining solution to cover the gel. Place on a shaker for 15 to 30 minutes. After the staining incubation is complete, discard the Blue Staining solution and add deionized water to remove the residual Blue Staining solution and observe the staining results.
   Note: If the protein content is low, the staining time may be extended. The appropriate staining time may be determined by the degree of band development.
3. **Destaining (water wash enhancement step).** Add to 200 mL of deionized water for 20 minutes. Repeat this step 3 to 4 times to further reduce background. Alternatively, the stained gel may be soaked in deionized water overnight.
   Note: water preheated to 50-60°C may be used to reduce the destaining time. For large gels, wash with 5 mL of deionized water per square centimeter. A microwave may also be used: add 100 mL deionized water to gel and heat in the microwave for 30 seconds, followed by placing on a shaker for 5 minutes. Repeat this step 2 to 3 times.
4. **Gel storage after destaining.** Place gel in a sealed bag with deionized water and store at 4°C for several weeks. Do not store at room temperature.
5. **Destaining followed by Mass Spectrometry.** Carefully cut out the band for analysis and destain it with 10-30% ethanol or 20-30% acetonitrile for 10 to 15 minutes. Wash with deionized water and perform Mass Spectrometry analysis.