

Instructions for
Silver Staining with ArgentQuick

Cat No: GF 10010

GF 10010 1 kit contains (125 ml each) Sensitizer
Staining solution A
Staining solution B
Developer
Stopper

Literature

- Poehling HM & Neuhoff V 1981, Electrophoresis 2, 141 – 147
- Rabilloud T 1990, Electrophoresis 11, 785 - 794

Specification

- Staining of gels with protein or DNA bands
- Solution 1: Sensitizer 125 ml contains Glutaraldehyde
- Solution 2: Stainer A 125 ml contains Silver Nitrate
- Solution 3: Stainer B 125 ml contains Sodium Hydroxide and Ammonium Hydroxide
- Solution 4: Developer 125 ml contains Citric acid and Formaldehyde
- Solution 5: Stopper 125 ml contains Citric acid
- Applications: 25 gels
- Sensitivity: 0,8 ng BSA (4 – 20 % Tris/Glycine/SDS gel, 5 mm width of well, 1 mm gel thickness)
- Duration: ~ 2 h, 10 – 20 steps
- Storage: 2 – 8°C, Shelf Life: 14 months

General Guidelines

- Be sure to use clean round containers and designate these containers for silver staining purposes only. Make sure that the container diameter and depth is sufficient to permit gel coverage with 100 ml of solution per gel. A container with the following measurements: 14 cm in diameter and 5,5 cm in height, is ideal. Set the shaker at 60 rounds per minute.
- Always use ultra pure water (18 MΩ/cm) for solution preps, gel rinsing, container washing and for the preparation of running buffers. Water with less than 18 MΩ/cm may increase the gel background by staining it grey and/ or impairing band development. Store ultra pure water in glass containers. Water stored in plastic containers can become contaminated.
- Avoid cross contamination of kit reagents, especially between Stainer A and Stainer B in the originally delivered bottle. Using disposable pipettes to avoid cross contamination. For best results, use freshly made solutions.

Detection

- For solution preparation and staining procedure refer to the following table.
- Detection is in the nanogram levels. As little as, 1 ng of BSA can be detected on an Anamed Tris-Glycine gel type 4-20 %, 1.0 mm.
- Silver staining sensitivity often varies from protein to protein. If you working with a protein which is difficult to silver stain, Coomassie™ staining or acidous silver staining with an alkaline developing and may result in higher sensitivity (see literature). If you are using ArgentQuick to stain a gel which has been Coomassie™ stained, omit the Fixing Step in the ArgentQuick protocol and proceed directly to the Sensitizing Step.
- The best step for an interruption overnight or over the weekend is the second sensitizing step.