

Product Information

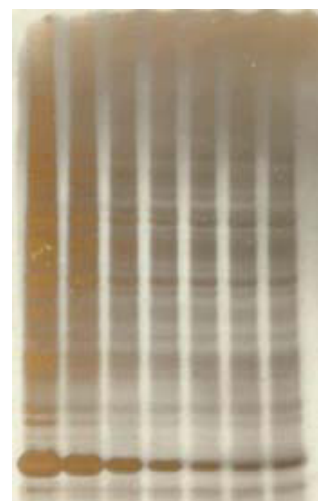
87781 Silver Stain Rescue Reagent Kit

Introduction

Silver Stain Rescue Reagent enables removal of undesirable background from unevenly and overly developed silver-stained gels. Anomalies in the gel matrix, prolonged development or overloaded protein often causes high background and uneven staining in silver-stained gels. Such staining problems often impede detection of important results and prevent use of the gel image for publications. The Silver Stain Rescue Reagent enables simple recovery of a quality stained gel image by effectively reversing the silver development process (Figure 1). The rescue reagent working solution is easily prepared, and the procedure is performed at room temperature in an ordinary lighted laboratory. The formulation removes the silver stain from gels slowly so that the destaining process can be easily monitored and stopped when the desired level of background has been removed. Additionally, a slight modification of the default working solution formulation enables flexibility in destaining time and image quality.



Over-developed Silver-stained Gel



Silver Stain Rescue Reagent-treated Gel

Figure 1. High background removed by the Silver Stain Rescue Reagent.

Dilutions of *E. coli* cell lysate were separated by SDS-PAGE using 4-12% gradient gels and stained with Silver Stain.

Procedure Summary



1. Prepare stop solution.



2. Wash gel 2 x 10 minutes with ultrapure water.



3. Destain gel in Rescue Reagent working solution.



4. Incubate gel in stop solution for 10 minutes. Repeat this step.



5. Wash gel 2 x 10 minutes with ultrapure water.

Procedure for Using the Silver Stain Rescue Reagent

Additional Materials Required

- Stop Solution: 30% ethanol, 10% acetic acid in ultrapure water (i.e., 6:3:1 water:ethanol:acetic acid)

Method

1. Wash silver-stained gel two times for 10 minutes each with ultrapure water to remove the acetic acid from the staining procedure.
2. Prepare the Rescue Reagent working solution immediately before use by adding Silver Stain Rescue Reagent A and Reagent B to ultrapure water in the amounts indicated in the following table:

Degree of Background	Reagent A	Reagent B	Water
high	0.2 ml	0.2 ml	49.6 ml
low/non-uniform	0.1 ml	0.1 ml	49.8 ml

3. Add working solution to the gel and incubate at room temperature with shaking until the stain reaches the desired intensity.
Note: Monitor gel closely to avoid completely erasing the desired image. Visualizing the gel in a clear tray placed over a light box may help to precisely determine the appropriate stopping point.
4. When the gel has been destained to the desired level, remove the working solution and add 50 ml of Stop Solution.
5. Incubate gel in Stop Solution for 10 minutes at room temperature with shaking. Replace the Stop Solution and incubate for an additional 10 minutes.
6. Remove Stop Solution and wash gel two times for 10 minutes each with ultrapure water.
7. Store the gel in ultrapure water at 4°C.

Normal reagent property	Reagent B has darkened with time	Product will function properly
Problem	Possible Cause	Solution
Image disappears too quickly	Working solution is too concentrated	Prepare a more dilute working solution

Precautions:

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.