

# Silver Stain Rescue Reagent

24614

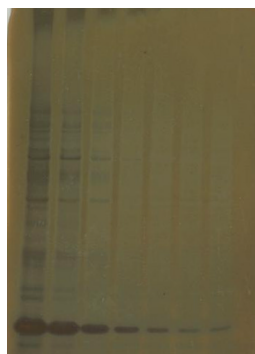
1747.0

Number	Description
24614	<b>Silver Stain Rescue Reagent</b>
	<b>Kit Contents:</b>
	<b>Silver Stain Rescue Reagent A, 20 ml</b>
	<b>Silver Stain Rescue Reagent B, 20 ml</b>

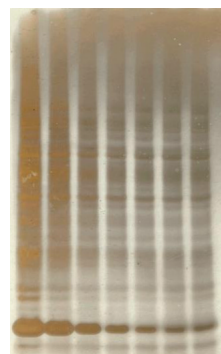
**Storage:** Upon receipt store at room temperature.

## 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 SilverSNAP<sup>®</sup> Stain Kit II (Product No. 24612).

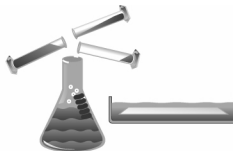
## Procedure Summary



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.

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## 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:

<u>Degree of Background</u>	<u>Reagent A</u>	<u>Reagent B</u>	<u>Water</u>
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.

### Troubleshooting

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

### Related Pierce Products

24612	SilverSNAP <sup>®</sup> Stain Kit II
24600	SilverSNAP <sup>®</sup> Stain for Mass Spectrometry
24597	Color Silver Stain Kit
24590	GelCode <sup>™</sup> Blue Stain Reagent, 500 ml, coomassie G-250 stain
24615	Imperial <sup>™</sup> Protein Stain, 1 L, coomassie R-250 stain
24582	E-Zinc <sup>®</sup> Reversible Stain Kit
25200-25244	Precise <sup>™</sup> Protein Gels (see catalog or web site for a complete listing)
26681	BlueRanger <sup>®</sup> Prestained Protein Molecular Weight Marker Mix, 48 single-dose tubes
26691	TriChromRanger <sup>®</sup> Prestained Protein Molecular Weight Marker Mix, 48 single-dose tubes
89871	In-Gel Tryptic Digestion Kit

Current versions of product instructions are available at [www.piercenet.com](http://www.piercenet.com). For a faxed copy, call 800-874-3723 or contact your local distributor.

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