

# GelCode<sup>®</sup> SilverSNAP<sup>™</sup>

## Stain Kit

24602

0798w

Number	Description
24602	<b>GelCode<sup>®</sup> SilverSNAP<sup>™</sup> Stain Kit</b> , contains sufficient reagents to stain up to 20 mini gels <b>Kit contents:</b> <b>GelCode<sup>®</sup> SilverSNAP<sup>™</sup> Stain</b> , 500 ml <b>GelCode<sup>®</sup> SilverSNAP<sup>™</sup> Developer</b> , 500 ml <b>GelCode<sup>®</sup> SilverSNAP<sup>™</sup> Enhancer</b> , 25 ml

**Storage:** Upon arrival store at room temperature. Product is shipped at ambient temperature.

*This product is guaranteed for one year from the date of purchase when handled and stored properly.*

### Introduction

GelCode<sup>®</sup> SilverSNAP<sup>™</sup> Stain Kit is a rapid and ultrasensitive silver stain for protein detection in polyacrylamide gels. This stain can detect as little as 0.25 ng of protein, making it ideal for applications that require high sensitivity such as 2-dimensional gel electrophoresis.

The GelCode<sup>®</sup> SilverSNAP<sup>™</sup> Stain Kit contains three ready-to-use components with a simple protocol that can be completed within 90 minutes. The actual staining can be completed within 35 minutes, which makes GelCode<sup>®</sup> SilverSNAP<sup>™</sup> Stain one of the fastest silver stains available.

### Procedure for Protein Staining in Polyacrylamide Gels

For optimal results, follow the instructions as written. Please read all instructions before beginning procedure.

#### Additional Materials Required

Ethanol  
Acetic Acid  
Ultrapure water

**Note:** The SilverSNAP<sup>™</sup> Enhancer is used in both the staining step and the developing step.

**Note:** One or two gels may be stained in the same container when using this protocol.

#### Fix the gel

1. Fix mini-gel(s) (1 mm thickness) in a solution containing 30% ethanol and 10% acetic acid for 30 minutes. For thicker gels stain for up to 3 hours. Use sufficient reagent to completely cover the gel (~50 ml).

#### Wash

2. Wash gel(s) twice with 10% ethanol (~50 ml).
3. Wash gel(s) three times with ultrapure water (~50 ml), 5-10 minutes per wash.

#### Stain

4. Mix 50 ml of SilverSNAP<sup>™</sup> Stain solution with 1 ml of SilverSNAP<sup>™</sup> Enhancer solution.

5. Soak gel(s) in the stain solution for 30 minutes with gentle shaking.

**Note:** Before develop step, prepare a 5% acetic acid solution (~50 ml) for stopping development.

**Develop**

6. Mix 50 ml of the SilverSNAP™ Developer with 1 ml of SilverSNAP™ Enhancer to make developing solution.

7. Remove SilverSNAP™ Stain solution from the container and add ultrapure water to the same container. Wash the gel(s) in the ultrapure water for 30 seconds to 1 minute.

**Note:** Do not exceed 1 minute for the water rinse because sensitivity may be lost.

8. Immediately transfer gel(s) to the developing solution and gently shake until desired bands are visible (5-30 min.).

**Stop**

9. When the desired band intensity is reached, stop the reaction by replacing the developing solution with 5% acetic acid.

**Troubleshooting**

<b>Problem</b>	<b>Cause</b>	<b>Solution</b>
Bands faint or not visible	Insufficient development	Develop gel for >5 minutes or add fresh developing solution
	Little or no protein present in sample	Check the protein concentration in the original sample
	Improper preparation of solutions or skipping of steps	Check solution preparation
	Excessive water wash before development step	Wash gel 3 x 10 minutes with ultrapure water. Repeat staining procedure and shorten wash step duration
High background	Stained gel was overdeveloped	Reduce development time
	Washing step(s) was missed or poor quality water was used	Do not skip or reduce wash steps. Use ultrapure water
	Contaminated equipment was used	Use clean equipment rinsed with ultrapure water
	Impure chemical was used for gel preparation or precast gel has expired	Use analytical grade chemicals. Use gels that have not expired
	Stop solution was not effective	When desired band development is achieved, replace stop solution with fresh solution

**Related Pierce Products**

<b>Number</b>	<b>Description</b>
24597	<b>GelCode® Color Silver Stain Kit</b> , sufficient reagent to stain up to 25 (18 x 18 cm) 2-D gels or 40 (10 x 13 cm) 2-D gels
24590	<b>GelCode® Blue Stain Reagent</b> , 500 ml
24592	<b>GelCode® Blue Stain Reagent</b> , 3.5 L
24582	<b>GelCode® E-Zinc™ Reversible Stain Kit</b> , sufficient for staining up to 20 SDS-PAGE 8 cm x 10 cm mini gels