INSTRUCTIONS

GelCode® E-Zinc™ Reversible Stain Kit

PIERCE
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24582

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Product Description

Number	Description
24582	GelCode® E-Zinc™ Reversible Stain Kit, 500 ml
	GelCode® E-Zinc™ Developer, 500 ml
	GelCode® E-Zinc™ Eraser, 500 ml
	Store at room temperature.

Introduction

GelCode® E-Zinc™ Reversible Stain Kit is ideal for the rapid detection of proteins on PAGE gels with sensitivity that is equivalent to silver stain. The stain itself is a negative stain that produces an opaque white background and leaves the protein bands as a clear spot. The bands become identifiable when placed against a black background. The negative stain can then be removed with the use of the E-Zinc™ Eraser solution and the protein can be eluted or transferred from the gel. The protein will be free of dye contamination, making it ideal for downstream applications such as antibody generation and/or immunological detection.

The main advantage of the E-Zinc™ Stain is that the simple, two-step procedure takes less than 15 minutes to stain the gel and the sensitivity is at the sub-nanogram level. All materials, including the E-Zinc™ Stain, Developer and Eraser solutions, come ready to use, thus making it a viable alternative to the commonly used Silver and Coomassie® gel stains.

Example Protocol

Staining

- Remove the gel from the electrophoresis cell.
- Place the gel in a container with the 25-50 ml of E-Zinc™ Stain Solution. (The amount of the staining reagent required for the gel depends on the size of the tray used. Typically, 25 ml of reagent will be sufficient for a 8 x 10 cm mini gel.) Be sure that the gel is completely immersed in the solution with gentle agitation.
- Place on a shaker agitating for 10 minutes
- Pour off the solution and add 25-50 ml of E-Zinc™ Developer solution. Allow 1-2 minutes for the gel to develop. Check the gel development against a dark background.
- Once protein bands are clearly visible, stop the gel development by replacing the Developer with DI Water and rinse for 1 minute. Pour off the water and refill with fresh DI water. The gel may be kept in DI water for up to two weeks.
- To visualize the protein bands, place the gel against a dark background (black or blue).

Destaining

- Transfer the gel to a container filled with 25-50 ml of the E-Zinc™ Eraser Solution. Shake until the stain disappears. Rinse the gel several times with DI water.
- The gel is now ready for protein elution, Western transfer or permanent staining with GelCode® Blue Stain Reagent (Product No. 24590) or GelCode® SilverSNAP™ Stain (Product No. 24602).

Troubleshooting/FAQs

1. No band is observed after staining.
   a. Review the band against a dark background.
   b. The gel may be overdeveloped. Monitor the band development against a dark background. To see bands, partially destain the overdeveloped gel until bands become visible and stop staining with DI water. The gel may be restained after being completely destained with E-Zinc™ Eraser and washed with DI water.
   c. No protein present in the sample. Check the protein concentration in the original sample.
2. Can I transfer and blot the zinc stained gel?

   Yes, but you must destain the gel first. The E-Zinc™ Stain reversibly fixes the proteins in the gel.
3. Can I stain the gel with GelCode® Blue Stain Reagent or SilverSNAP™ Stain Reagent after E-Zinc™ Stain?

   Yes, after destaining.
4. Can the solutions be reused?

   No, it is not recommended.

Related Pierce Products

24590 GelCode® Coomassie® Blue Stain Reagent, 500 ml

24592 GelCode® Coomassie Blue Stain Reagent, 3.5 L

24602 GelCode® SilverSNAP™ Stain Kit