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A Geno Technology, Inc. (USA) brand name

FASTSilver™

For Staining Proteins & Nucleic Acids in Polyacrylamide Gels

(Cat. # 786-30)

INTRODUCTION

FASTSilver™ is one of the most rapid and sensitive methods for detecting proteins and nucleic acids fractionated by PAGE. Staining is 100 times more sensitive than Coomassie Blue protein staining and 10 times more sensitive than ethidium bromide for DNA and RNA. Unlike most silver staining kits FASTsilver™ does not contain glutaraldehyde that modifies protein molecules making protein bands unsuitable for protein digestion. FASTsilver™ provides gels with exceptionally clear backgrounds and sharp protein or nucleic acid images. The protocol is simple and takes as little as 60 minutes to yield perfect results. The lower detection limit of FASTsilver™ is 1ng /band for proteins and nucleic acids. The regular size kit is suitable for 25 mini gels.

ITEM(S) SUPPLIED (Cat. # 786-30)

Description	Size
Silver Stain	125ml
Developer	75g
Sensitizer-I	4 ml
Sensitizer-II	4 ml

STORAGE AND STABILITY

The kit is shipped at ambient temperature and is stable for 1 year when stored at 10-25°C and handled properly. To ensure longer stability, Developer reagent is supplied as dry powder.

WARNING: *Poisons. This kit contains heavy metal silver ions; avoid contact with skin and eyes. Wear gloves and eye protection.*

ADDITIONAL ITEMS REQUIRED

Ethanol, Glacial acetic acid and Deionized water

PROTOCOL

NOTE: *Gel clarity will depend greatly on the quality and purity of the reagents used in making and running of the gel as well as the quality of protein sample loaded on the gel. Always use clean containers and highly purified deionized water for fixing and staining the gel. Never touch the gels with fingers.*

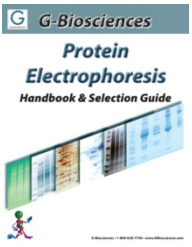
Wear gloves during gel handling.

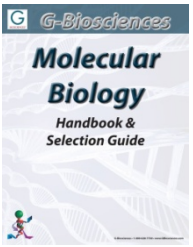
1. After electrophoresis, fix the gel in a solution containing 30% ethanol and 10% glacial acetic acid. Use highly purified de-ionized water. For isoelectric focusing gels, fix the gel first in 20% TCA for 30 minutes. Fix the gel for 30 minutes to 3 hours depending upon the thickness of the gel. For mini-gels, 20-25 minutes is sufficient.
2. Wash twice, 5-10 minutes each, in 10% ethanol.
3. Wash three times, 5-10 minutes each in de-ionized water.

   NOTE: *During washing steps 2 and 3, use generous amounts of the wash and use gentle rocking or agitation.*
4. **Silver stain preparation:** Dilute Silver Stain 10 folds (e.g. Dilute 5ml of the stain in 45ml deionized water), then add 65µl of Sensitizer-I per 50ml diluted Silver Stain. Soak the gel in diluted and Sensitizer-I added Silver Stain for 20-30 min with gentle rocking of the gel, depending upon the thickness of the gel.
5. **Developer preparation:** While the gel is staining, prepare the developer. Add two heaping spoonful (~3-4gm) of Developer to 100ml of deionized water. After the developer is dissolved, add 65µl of Sensitizer-I and 65µl of Sensitizer-II.
6. Rinse the gel 10-20 seconds with deionized water.
7. Soak the gel in Developer-Sensitizer-I & II. Gently rock the gel until bands are visible. Band intensity will develop quickly.
8. As soon as band intensity reaches an acceptable level, stop development with 2% acetic acid. Transfer the gel into the acetic acid solution and incubate for 10 min. Gel may be stored in 2% acetic acid or water.

RELATED PRODUCTS

Download our Protein Electrophoresis & Molecular Biology Handbooks.





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