

# **SeeBand *Forte* Protein staining solution**

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**Warning:** wearing gloves is highly recommended when handling SDS-PAGE and SeeBand *Forte* staining solution.

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Cat. No.	Description
SB020	<b>SeeBand Forte</b> protein staining solution, 500 ml, sufficient for 20 mini gels
SB021	<b>Sample SeeBand Forte</b> protein staining solution, 2 X 30 ml.

**Storage:** Upon arrival, store at 4<sup>0</sup>C. Shipped at ambient temperature. *This product is guaranteed for one year from date of purchase when properly handled and stored.*

## Features

**SeeBand Forte** protein staining solution guarantees protein staining in polyacrylamide gels **with fixation of the protein to the gel**. This unique staining solution allows formation of sharp protein bands in the gel. The staining solution also permits tracking the staining intensity in the course of the staining process with very low background. No need for multi-step washing as required with other gel staining **procedures, when using SeeBand Forte protein staining solution**. Washing uses water only, which further enhances staining sensitivity and provides a clear background.

**Sensitivity: 10 ng protein per band (BSA).**

## Gel staining procedure

**Before you start:** Mix the **SeeBand Forte** protein staining solution vigorously.

**Important:** This protocol is adjusted for 8 x 10 cm mini 10% SDS PAGE (1 mm thick). Longer procedure is need for thicker or higher percentage SDS-PAGE.

- 1. Remove stacking gel from the separating gel.**
- 2. Rinse the gel with 300 ml of ultra-pure water 3 x 10 minutes with gentle shaking.**

**Important:** SDS interfere staining procedure; wash thoroughly (see Time Table for removing SDS from gels).

- 3. Add 20 ml of SeeBand Forte protein staining solution to stain an 8 x 10 cm mini gel. Gently shake tray.**

Additional reagent may be required if a large tray is being used. Stain intensity reaches a maximum within approximately 1 hour. Gels may be stained overnight without increased background.

**4. For washing, replace staining solution with ultra-pure water.** Several water changes may be necessary for optimal results. This step enhances stain sensitivity.

**Optional washing:** for ultra fast washing replace staining solution with 30% methanol and 10% acetic acid solution.

**Notes:**

1. After using **SeeBand Forte protein staining** solution, close tightly the cap and store again at 4°C. Do not freeze.
2. Recommended: for drying the gel after staining uses the **Crack free solution kit** (Cat. No. C010, see page 4) to avoid gel cracking during drying.

**Time Table for removing SDS from gels**

Gel percentage	Time for shaking in water
Protein gel <14%	10 minutes X 3 in 300 ml water
Protein gel 14%-16%	30 minutes X 3 in 300 ml water
Protein gel >16%	60 minutes X 3 in 300 ml water

**Important:** This protocol is adjusted for 8 x 10 cm mini gel 1 mm thick. Longer procedure is need for thicker gel.

## Microwave procedure, 12 min staining

The microwave procedure is fast, takes just 12 minutes and yields results with sensitivity as low as 10 ng. The procedure is for 1.0 mm thick mini-gels. For 1.5 mm mini-gels, use the values in parentheses.

**Caution:** Use caution while using the stain in a microwave oven. Do not overheat the staining solutions.

1. After electrophoresis, place the gel in 100 ml of ultra pure water in a loosely covered container and microwave on High (950 to 1100 watts) for 1 minute until the solution almost boils.
2. Shake the gel on an orbital shaker for 1 minute (2 minutes). Discard the water.
3. Repeat steps 1 and 2 two more times.
4. After the last wash, add 20 ml (30 ml) of *SeeBand Forte* and microwave on High power for 45 seconds to 1 minute (1.5 minutes) until the solution almost boils.
5. Shake the gel on an orbital shaker for 5 minutes (10 minutes).
6. Wash the gel in 100 ml of ultra pure water for 10 minutes on a shaker.

## Troubleshooting

Problem	Cause	Solution
No band development	Gel is > 1 mm thick	Longer immersion in the <i>SeeBand Forte</i> protein staining solution
	Gel has high polyacrylamide concentration	Longer immersion in the <i>SeeBand Forte</i> protein staining solution
	SDS interference	Before staining, wash the gel with plenty of water for longer time

## Related Product

Product	Cat number
<b>SeeBand</b> protein staining solution (extraction grade): for staining protein without fixation to the gel.	SB010
<b>GeBeflex-tube</b> kit: for extraction of protein from polyacrylamide gel.	T011
<b>Crack Free</b> solution X4 kit: to avoid gel cracking during drying.	C010
<b>Crack Free</b> solution X1 kit: to avoid gel cracking during drying.	C020