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FastBlueTM Gel Staining Reagent

Cat no. PT-P575-500 ml

Description:

FastBlueTM Gel Staining Reagent is a convenient alternative to traditional Coomassie Blue staining procedures, based on a colloidal G250 formulation. Environmentally friendly, this ready-to-use stain does not contain methanol, acetic acid and TCA and does not require hazardous solvents for destaining. The protein bands are visible directly during the staining process in 3 min.

Generally the gel can be documented or stored directly without destaining. If optimal sensitivity is required, a simple and quick destaining with water yields clear background. The sensitive of detection is up to 8 ng under standard procedure.

Instructions:

<u>Pre-wash:</u> place the SDS-PAGE gel in a clean tray and rinse 5 min x 3 with gentle shaking, use 300-400 ml ultra-pure water per 8x 10 cm mini gel.

- Note: 1. SDS will inhibit the binding of dye with protein, it is very important to use large amount of water to remove SDS.
 - 2. If using 200 ml water to wash, 10 min x 3 wash will be recommended for maximum sensitivity.
 - 3. A simple 5 min pre-wash is usually sufficient for native gel.
 - 4. $10 \min x 3$ wash will be recommended for $> 1 \min$ thicker gel or > 15% gel.
 - 5. For larger gel, use about 5 ml water per cm² gel to wash.

Stain: Mix the FastBlue stain by inverting the bottle several times before use.

Use 12-20 ml (depending on tray size, use stain solution just cover the gel) FastBlue Stain for an 8x 10 cm mini gel with gentle shaking for 30 min to 1 hr. The signals can be seen directly in the tray in 3 min.

- Note: 1. You can leave the gel overnight when necessary, which will not affect the sensitivity and background.
 - 2. Usually the background is very low in the staining solution, gel can be documented, stored or dried directly without destaining.
 - 3. If destaining step is not necessary, do not rinse with water or the background will turn a little blue when rinsing with water.

Optional: Destain-background clearance

Discard the staining reagent and wash with water by alternately following steps:

- A. Fast step by microwave or pre-warmed 50-60°C water
 - 1. Microwave: add 100 ml ultra-pure water per mini gel in the *microwavable stray*, microwave 30 s then gentle shaking for 5 min. Repeat one or two more times to get a clearest background.

2. Pre-Warmed water: add 100 ml pre-warmed 50-60°C water to the gel in the tray, gentle shaking for 5 min. Repeat one or two more times to get a clearest background.

Note: For larger gel, use 1.5 ml water per cm² gel to destain, microwave the water until water temperature is around 60°C; or using pre-warmed water to destain.

B. Slow step with water at room temperature

Add 200 ml ultra-pure water to the gel in the tray, gentle shaking for 1-2 hour. Change water for 2 or 3 times during incubation is recommended for clearer background.

Note: For larger gel, use 1.5 ml water per cm² gel to destain.

Storage of the gel:

- 1. The gel without destaining can be stored in original staining solution in plastic zip bag at 4°C for several weeks, do not rinse with water which will change pH and produce background.
- 2. The gel after destaining can be stored in the water at 4°C for several weeks. You may insert the gel into plastic zip bag with ultra-pure water and store at 4°C. Do not store the gel at RT for more than two days.

Destaining Protein Bands for MS Analysis:

General guidelines are provided below for destaining the protein bands prior to MS analysis. Contact your MS facility or the protein core facility for detailed protocols.

- 1. Excise the protein band of interest from the gel using a clean scalpel and destain with 10-30% ethanol or 20-30% acetonitrile for 10-15 minutes or until clear.
- 2. Rinse the gel piece in ultrapure water and proceed for MS analysis.

For Research Using Only.

Please do not hesitate to contact us if you have any questions.

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