

Silver staining of SDS-page

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Abstract

Silver staining of a acrylamide gel.

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Guidelines

Fixate-solution:

50 ml. ethanol

12 ml. acetic acid

50 µl filtered 37% formaldehyde

-> 100 ml. H₂O

Thiosulfate-Stock:

20 mg/ml Sodium Thiosulfate

Pre-treatment solution:

1 ml Thiosulfate-Stock:

-> 100ml H₂O

Silver nitrate solution

0.1 g silver nitrate

37.5µl filtered 37% formaldehyde

-> 50ml H₂O

Developer solution:

100µl filtered 37% formaldehyde

40µl Thiosulfate-Stock:

-> 200ml H₂O

12g. Sodium carbonate

Stop-solution

12ml acetic acid

-> 100ml H₂O

Protocol

Fixate the gel.

Step 1.

1 hour (or ON) in 50-100 ml. fixer solution

Wash

Step 2.

Wash the gel

1x20min. in 50% ethanol

2x20min in 30% ethanol

Incubate

Step 3.

Incubate the gel for 1 minute in 100 ml pre-treatment solution

Wash

Step 4.

Wash the gel 3x2sec. with dH₂O

Incubate

Step 5.

Incubate the gel for 20 min in silver nitrate solution

Wash

Step 6.

Wash the gel 3x2sec. with dH₂O

develop

Step 7.

Develop the gel with 100ml developer-solution, replace the developer-solution after 30 sec.

Beware the reaction is very fast!.

Stop

Step 8.

When the protein bands have reached the desired intensity stop the reaction with 100ml of stop-solution

(leave for 10 min)

Step 9.

Incubate the gel in 30% ethanol + 5% glycerol for 30 min. before the gel is dried