Coomassie Blue Staining

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[Abstract] Coomassie staining is able to detect protein bands containing about 0.2 μg or more protein. For low abundant protein, silver staining (www/silver staining) is a better choice since it is about 100-fold more sensitive than Coomassie staining.

Materials and Reagents

1. Coomassie Brilliant Blue R250 (EM Science)
2. Glacial acetic acid
3. MetOH
4. Staining solution
5. Dye solution
6. Destaining solution

Equipment

1. Shaker

Procedure

1. Incubate the gel in staining solution with shaking for 30 min or longer (can leave it overnight).
2. Remove the dye solution (it can be reused for many times) and rinse the gel with water 1-2 times to remove the dye.
3. Add destaining solution to the gel and incubate for 30-60 min.
4. Transfer the gel to water (can keep it in water for several days).

Recipes

1. 100 ml staining solution
   Coomassie Brilliant Blue R250 0.25 g
   Glacial acetic acid 10 ml

MetOH: H_2O (1: 1 v/v) 90 ml

2. Destaining solution

   Destaining solution is the same as staining solution, but not containing the Coomassie R250 dye powder.