C2 Biotechnologies, LLC

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SOP-102

Coomassie Blue Staining of Polyacrylamide Gels

Procedure for detecting proteins in polyacrylamide gels.

Section 1

Materials and Reagents

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Coomassie Brilliant Blue Staining Solution

(1 liter)

Coomassie Brilliant Blue R250	2.5 g
Methanol	400 ml
Glacial Acetic Acid	100 ml
H_2O	500 ml

High Methanol De-stain Solution

(1 liter)

Methanol	400 ml
Glacial Acetic Acid	100 ml
H_2O	500 ml

4 % (v/v) Glycerol Solution

(1 liter)

Glycerol	40 ml
H_2O	960 ml

Section 2

Protocol

Protocol

1. Stain the gel in approximately 50 ml of staining solution. Incubate at room temperature on a rotating platform for 20 min.

2. Remove the staining solution. Used solution can be kept and reused until quality of staining decreases.

3. Rinse gel in de-stain solution. Remove excess stain by incubating gel in 100 ml of de-stain solution for 2 – 3 hr. de-staining is complete when the background is essentially clear.

4. Equilibrate gel in 4 % glycerol for 1 hr. The glycerol helps to keep gel from cracking when dried.

5. Record results electronically or by photography while gel is wet. Preserve gel by drying between two cellophane membranes. Hydrate membranes and place gel in between. Remove any air bubbles and allow gel to dry either in a frame or in a gel dryer.

Section 3

References

References

Short Protocols in Molecular Biology. 4th Edition. Editors Frederick M. Ausubel, Roger Brent, Robert E. Kingston, David D. Moore, J.G. Seidman, John A Smith and Kevin Struhl. John Wiley & Sons, Inc. 1999