QC Colloidal Coomassie Stain

Ordering Information

Catalog #	Product
161-0803	**QC Colloidal Coomassie Stain**, 1 L

Introduction

Bio-Rad's QC colloidal Coomassie stain is a ready-to-use single-bottle protein stain that does not require the mixing of any components or addition of any alcohols. It is a special formulation of Coomassie G-250 that provides maximum sensitivity with low background for a wide variety of acrylamide gel chemistries. The QC colloidal Coomassie stain can reliably detect BSA in amounts down to 3 ng.

The QC colloidal Coomassie stain does not contain any methanol or acetic acid, which must be disposed of as hazardous waste.

Kit Contents

Kit contains 1 L of QC colloidal Coomassie stain, which is sufficient to stain 10 Criterion™ gels or 20 Mini-PROTEAN® gels.

Storage Conditions

The QC colloidal Coomassie stain should be stored and used at room temperature. Do not freeze or refrigerate the stain.

User-Supplied Materials

- Deionized water
- Shallow tray with cover for gel staining and destaining
- Ethanol and acetic acid, if gel fixation is desired

Staining Protocol

This protocol provides the maximal sensitivity while maintaining low background levels and provides the most consistent and robust results. This protocol allows detection of amounts down to 3 ng of BSA.

Gel Size	Fixing Solution*, ml	QC Colloidal Coomassie Stain, ml	Water Washes, ml
Criterion	100	100	100
Mini-PROTEAN	50	50	50

* 40% ethanol, 10% acetic acid

Gel Fixation

Fixation is recommended for maximum sensitivity and staining of low molecular weight proteins <20 kDa.

- Prepare fixing solution (40% ethanol, 10% acetic acid)
- Remove gel from cassette and rinse in a shallow staining tray with deionized water

- Fix gel for 15 min with gentle agitation
- Discard the fixing solution
    - Dispose of fixing solution properly
- Alternatively, the gel can be fixed with 50% methanol and 10% acetic acid with no loss in sensitivity. Fixing can be replaced with three 5 min water washes or no wash at all, but sensitivity will be reduced.

Gel Staining

- Rinse the gel in a shallow staining tray with deionized water
- Add QC colloidal Coomassie stain to the gel and incubate with gentle agitation at room temperature for 1–20 hr
    - Maximum sensitivity is obtained after staining for 10–20 hr. Staining for 16 hr allows detection of amounts <10 ng of BSA
    - If rapid staining is desired, gels may be stained for only 1 hr with a slight reduction in sensitivity
    - Cover the staining container to reduce evaporation of the staining solution

Gel Destaining

- Discard the staining solution
    - QC colloidal Coomassie stain is formulated without methanol or acetic acid, which need to be disposed of as hazardous waste
- Destain the gel in deionized water. Destain for 1–3 hr with gentle agitation. Change the water at least three times
    - Highest signal-to-background levels are obtained with 3 hr of destaining
    - If rapid destaining is desired, destain 1 hr with 3 changes of water; signal-to-background decreases slightly
- Destained gels are now ready for imaging and analysis
    - Gels can be stored in water for up to 3 days without a significant decrease in sensitivity