

# Superfast-Blue™ Coomassie Stain

(Based on Colloidal Coomassie)

## Ordering info

TBB0419, Superfast-Blue™ Coomassie Stain, 1L

## Description

Coomassie blue dyes have been the most popular stains used in protein visualization separated by either agarose or acrylamide gel electrophoresis, because of their reproducibility. However, traditional approaches involve lengthy staining and destaining steps using glacial acetic acid and methanol. These solvents are both toxic and poisonous and need to be disposed as hazardous waste.

**Superfast-Blue™ Coomassie Stain** is a next generation staining solution specially formulated for nonhazardous sensitive detection of proteins. It is based on the colloidal properties of Coomassie Blue dyes created in aqueous solutions containing inorganic acids and high salt concentrations.

Using **Superfast-Blue™ Coomassie Stain** you can detect <10 ng of BSA on a 4–20% 1.0-mm Tris-Glycine gel in 1 hour.

## Features

- **Highly sensitive**, <10 ng of protein can be visualized.
- **Safer and environmental friendly than traditional Coomassie stain**, does not contain harmful reagents.
- **Rapid Staining Procedure**
- **Destain Solution is not required.**
- **Very low background**, colloidal dye is adsorbed by the protein bands and does not enter the gel itself.

## Applications

- Native and SDS-PAGE gel staining.
- IEF gel staining.
- 2-D (IEF-SDS) gel staining

## Kit Components

| Components         | TBB0419 |
|--------------------|---------|
| Colloidal Solution | 900 mL  |
| Blue Solution 10x  | 100 mL  |

**Order Info Kit Components:** Colloidal Solution (TBB0419-A) | Blue Solution 10x (TBB0419-B).

## Before its use:

To prepare 50 mL Superfast-Blue Coomassie Stain, mix well 45 mL Colloidal Solution with 5 mL Blue Solution 10x.

## Storage

Store at 25°C.

The product is shipped at ambient temperature.

## Quality Control

- Staining of BSA on 12% SDS-PAGE.

## Also available:

- **WATER, nuclease free** (TBB0300, TBB0301)
- **Tris-Glycine Buffer 10x, pH 8.3** (TBB0333, TBB0334)
- **Tiaris™ Blue Protein Ladder, 10-180 kDa** (TBR0296)
- **Tiaris™ Dual Color Protein Ladder, 11-245 kDa** (TBR0297)
- **Tiaris™ MultiColor Protein Ladder, 6.5-270 kDa** (TBR0298)

## References

Neuhoff V, Arold N, Taube D, Ehrhardt W. (1998) Improved staining of proteins in polyacrylamide gels including isoelectric focusing gels with clear background at nanogram sensitivity using Coomassie Brilliant Blue G-250 and R-250. Electrophoresis 9 (6): 255-62. doi: 10.1002/elps.1150090603.

## PROTOCOL

### A. Polyacrylamide Gel Electrophoresis

1. Put the polyacrylamide gel in a convenient reservoir, and wash for 5 minutes in a large volume of deionized water. Change the water 3 times.
2. Discard the water and add a volume of Superfast-Blue™ Coomassie Stain to cover the gel.
3. Shake gently for 1 hour.  
*Protein bands will be visible within 5-10 minutes and reach a maximum intensity within 1 hour. Incubation longer than 1 hour has marginal impact on staining.*
4. Remove Superfast-Blue™ Coomassie Stain and wash for 15 minutes in a large volume of deionized water. Change the water 3 times.
5. Analyze the gel.

### B. Isoelectric Focusing Gels

1. Put the IEF Gel in a convenient reservoir, and add a solution with 40% methanol plus 10% acetic acid.
2. Shake gently for 30 minutes.
3. Discard the solution and continue with Protocol A, first step.

### C. Sample Preparation for for Mass Spectrometry

1. After staining steps, cut the protein band and put it into a clean microcentrifuge tube.
2. Add 1 mL Ethanol 30% and mix gently for 30 minutes\*. Change ethanolic solution 2 or 3 times.  
*\* Keep the samples in ethanol until all stain is removed.*
3. Continue as usual with Mass Spectrometry protocol.