

SimplyBlue™ SafeStain

Fast, Sensitive, and Safe Protein Staining



With SimplyBlue™ SafeStain
protein staining is:

- **Fast**
Bands develop in minutes
- **Sensitive**
Detect as little as 7 ng of protein
- **Safe**
No hazardous acid/alcohol
fixatives or destains required

SimplyBlue™ SafeStain Simplifies Protein Staining



SimplyBlue™ SafeStain is a uniquely formulated, ready-to-use Coomassie® G-250 stain used to visualize protein bands in polyacrylamide gels. With SimplyBlue™, you'll get the highly sensitive staining results your experiments require—fast. Solution preparation time and expenditure is eliminated, saving you time and money. In addition, staining with SimplyBlue™ is completely non-hazardous and the protocol does not require acid/alcohol fixatives or destaining solutions. You'll save money on hazardous material shipping, waste storage, and disposal charges, and you'll create a healthier work environment. No other commercially available protein stain can meet these standards.

Simple protocol is **fast and flexible**

With SimplyBlue™ SafeStain, Coomassie staining is as easy as 1-2-3 (Figure 1). Simply rinse your gel for 15 minutes in water, stain with 20 ml of SimplyBlue™ SafeStain, and analyze your results. A fixative solution is not required for any gel format. Bands begin to develop immediately. In as little as 5 minutes, you can see 1 µg of protein. For fast results, gels can be analyzed directly in the stain, eliminating

hours of destaining time. If you need maximum sensitivity and crystal clear background, you can perform an optional water-based destain. With SimplyBlue™ your bands will never fade—even if the gel is left overnight in the stain or destain. You don't have to watch over your gels, freeing your time for more important matters.

Figure 1 - Staining with SimplyBlue™ SafeStain is as easy as 1-2-3

1



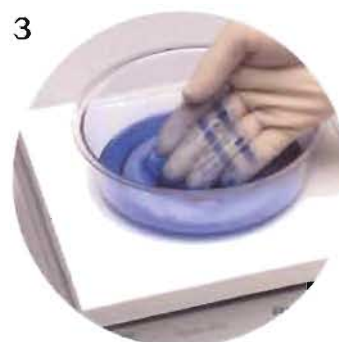
Rinse your gel with water for 5 minutes. Repeat two more times.

2



Stain your gel with 20 ml of SimplyBlue SafeStain for 1 hour*. Bands develop in minutes.

3



Analyze your gel directly in the stain, or continue with the optional water-based destaining protocol to achieve maximum sensitivity and crystal-clear background.

*Although 1 µg of most proteins can be detected within 5 minutes, the SimplyBlue™ Basic Protocol recommends staining for 1 hour to ensure maximum dye saturation of all proteins and concentrations.

Versatile Staining Reagent

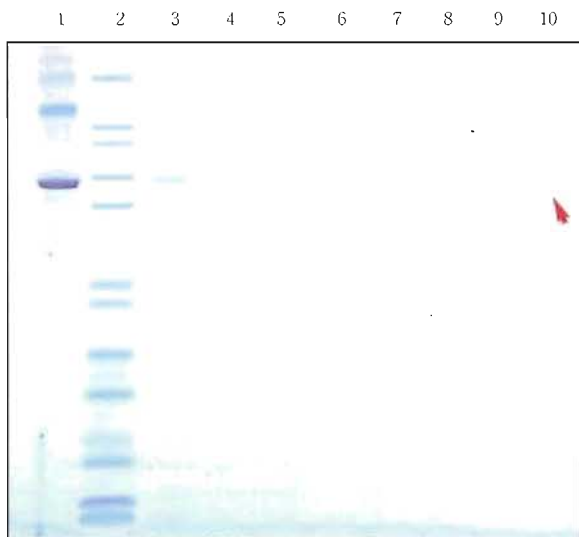
Compatible with the NuPAGE® Gel System

The patented NuPAGE® Gel system offers high-performance protein separation in a neutral pH environment. This results in reduced protein modifications and increased gel stability to ensure accurate separation results and provide a 12-month shelf-life. SimplyBlue™ SafeStain is specifically designed to achieve maximum staining performance with NuPAGE™ Gels. NuPAGE™ Gels stained with SimplyBlue™ demonstrate faster band development and more sensitive staining results than with other commercially available

Coomassie stains (Figure 2). With SimplyBlue™, less than 7 ng of reduced BSA can be detected—that's at least two times greater sensitivity than with other stains. If you're not using NuPAGE® Gels don't worry. SimplyBlue™ will give you fast, sensitive results with all polyacrylamide gels including Tris-Glycine, Tricine, IEF, Zymogram, and native-PAGE gels, as well as with PVDF membranes.

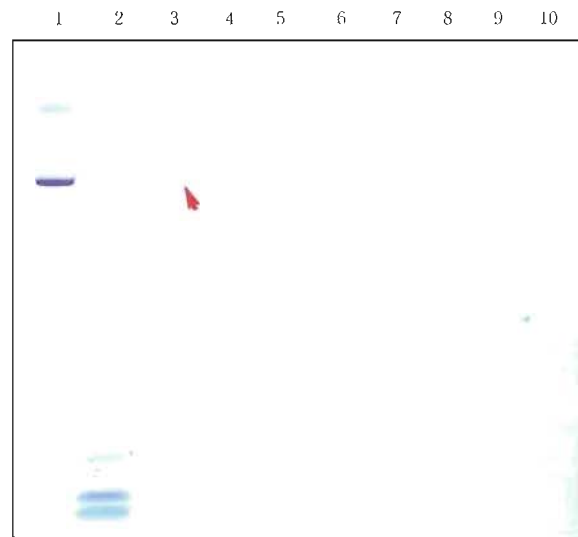
Figure 2 - Comparison of NuPAGE® Novex Bis-Tris 4-12% Gels stained with SimplyBlue® SafeStain or GelCode® Blue

A. Gel stained with SimplyBlue



NuPAGE® Novex Bis-Tris 4-12% Gel stained with SimplyBlue™ for 1 hour, then destained overnight in a water-based destain. As little as 2 ng reduced BSA can be detected (Indicated by the arrow in lane 10).

B. Gel stained with GelCode® Blue



NuPAGE® Novex Bis-Tris 4-12% Gel stained with GelCode® Blue for 1 hour, then destained overnight in water. Even the 16 ng reduced BSA band is not visible (Indicated by the arrow in lane 3).

The following samples were loaded on each gel:

Lane 1: 1 µg reduced BSA	Lane 6: 6 ng reduced BSA
Lane 2: 10 µl Mark12® Standard	Lane 7: 5 ng reduced BSA
Lane 3: 16 ng reduced BSA	Lane 8: 4 ng reduced BSA
Lane 4: 8 ng reduced BSA	Lane 9: 3 ng reduced BSA
Lane 5: 7 ng reduced BSA	Lane 10: 2 ng reduced BSA

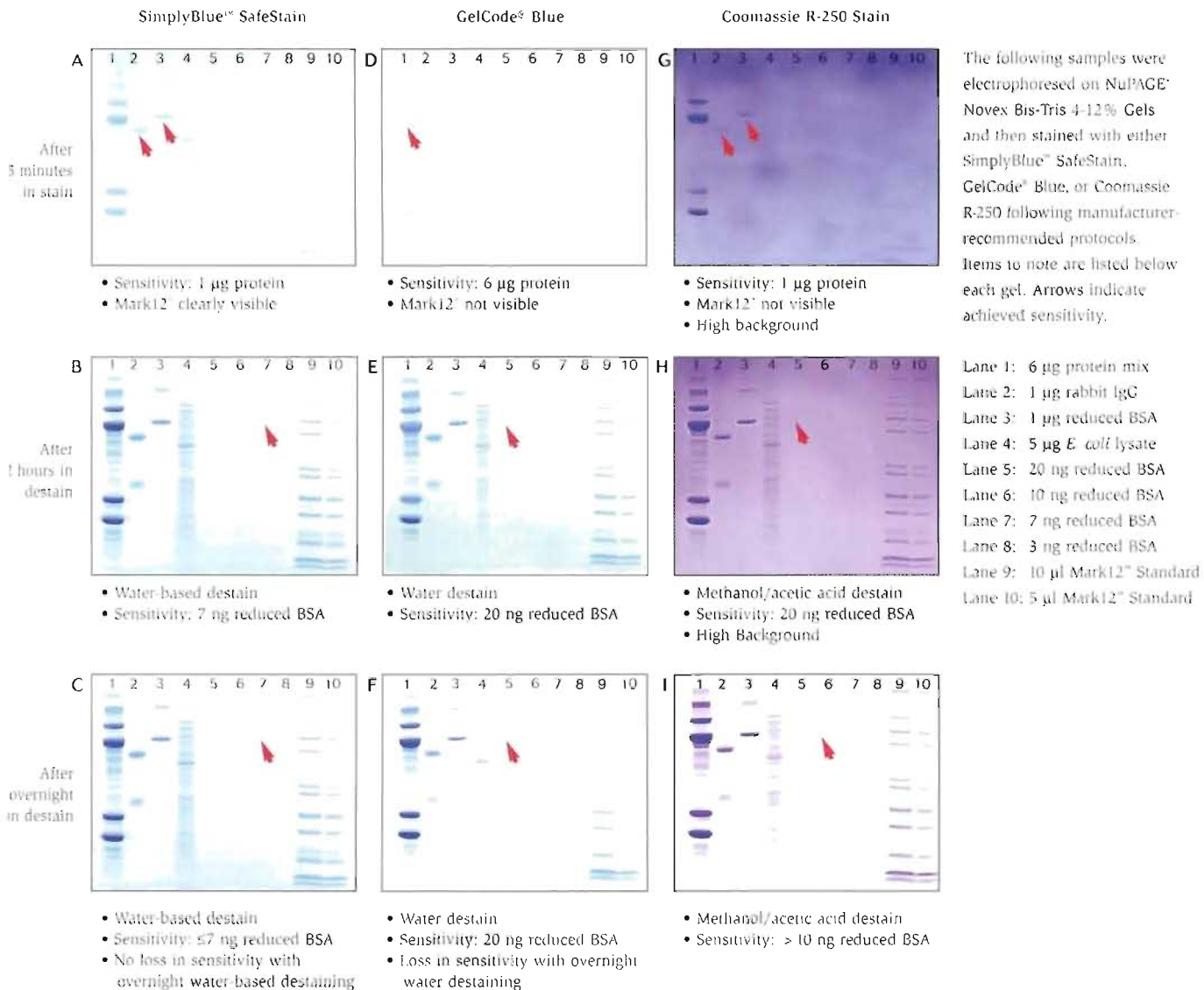
Sensitive Staining for Maximum Performance

Detect as little as 7ng of protein

SimplyBlue™ SafeStain combines a unique colloidal Coomassie G-250 staining solution with an optimized staining protocol to achieve the highest sensitivity of any commercially available Coomassie stain. The gels in Figure 3 demonstrate the superior staining results achieved with SimplyBlue™ over other Coomassie stains.

After just 5 minutes in the SimplyBlue™ SafeStain, 1 mg of protein can be detected. With additional water-based destaining, 7 ng or less can be detected. In addition, there is no loss in sensitivity when the gel is left overnight in the destain. With SimplyBlue™, you'll get the most sensitive staining results.

Figure 3 - Greater sensitivity with SimplyBlue™ SafeStain



Safe, Non-hazardous Staining

No acid or alcohol required

Unlike traditional R-250 and some G-250 Coomassie stains, SimplyBlue™ SafeStain does not require methanol or acetic acid fixatives or destains. The risks of hazardous exposure and unpleasant odors are eliminated, providing a healthier lab environment. There are no HazMat charges associated with SimplyBlue™, so you'll

save money on hazardous shipping, waste storage, and disposal fees. Additionally, SimplyBlue™ SafeStain has been independently tested for safety and confirmed to be non-hazardous, non-toxic, non-flammable, and non-corrosive (Table 1). In most areas, SimplyBlue™ can be safely disposed down the drain*.

Table 1 - SimplyBlue™ SafeStain is confirmed non-hazardous

Analysis	Method	Results
Ignitability	EPA 1010	Non-hazardous (> 144°F)
Corrosivity	EPA 150.1	Non-hazardous (≥ pH 2.1)
Corrosivity (by Corrositex®)	DOT-E 10904	Non-hazardous
Reactivity (Cyanide and Sulfide)	EPA 9010B/9014 EPA 9030A	No Reactivity Detected
Aquatic Toxicity (fathead minnow; definitive, CAC, Title 22)	CA Fish and Game	Non-hazardous

* SimplyBlue™ SafeStain has been extensively tested for safety. Ogden Environmental and Energy Services Co., Inc. San Diego, CA U.S.A, has independently confirmed these tests. Check the MSDS and your local authorities for special disposal requirements in your area.

Convenient Packaging

Supplied ready-to-use

SimplyBlue™ SafeStain is packaged in a 1 L bottle containing 1X, ready-to-use staining solution. Simply follow the instructions conveniently located on the bottle to achieve high-quality staining results. We also provide protocols for achieving maximum sensitivity with various gel formats.

The SimplyBlue™ staining reagent is guaranteed to be stable and provide maximum performance for 6 months. As an added convenience, SimplyBlue™ can be stored on your bench top at room temperature, so it's within reach when you need it.

Order your next favorite blue today

For fast, sensitive, and safe protein staining, get SimplyBlue™ SafeStain. You'll save time, money, and get superior sensitivity in all your protein polyacrylamide gel analyses. Order today and make SimplyBlue™ your next favorite blue.

Description	Quantity	Cat. No.
SimplyBlue™ SafeStain	1 L.*	LC6060
SimplyBlue™ Safestain	3.5L	LC6065

*Sufficient reagent is supplied to stain 50 mini-gels.



SimplyBlue™ is a trademark of Invitrogen Corporation. NuPAGE™ is a registered trademark of Invitrogen Corporation and is covered under U.S. Patent No. 5,575,150 and 6,059,945. Coomassie™ is a registered trademark of Imperial Industries, PLC. GelCode™ is a registered trademark of PIERCE Chemical Company. Corrosix™ is a registered trademark of Invitro International.

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