

**Gel-FAST™ 20 Minutes Gel Staining/Destaining Kit**  
(Catalog #K901-40; Store kit at room temperature)

**I. Introduction:**

SDS-PAGE is one of the most powerful and commonly used techniques in molecular biology. However, traditional protein gel staining and destaining methods take several hours to finish and leaves a high blue background on the gel reducing the detection sensitivity. BioVision's **Gel-FAST™ 20 Minutes Gel Staining/Destaining Kit** provides a fast and sensitive method for SDS-PAGE gel staining and destaining. The procedure requires only 5 minutes for gel staining and 15 minutes for destaining. A total of 20 minutes allow visualization of as little as 5 ng of protein on a water-clear background. The kit contains sufficient solutions to stain and destain up to 40 pieces of protein mini gels.

**II. Kit Contents:**

Components	K901-40
2X Solution A*	500 ml*
6X Solution B	500 ml

\*Add 250 ml of isopropanol (not provided) before use to generate the 500 ml of 2X Solution A.

**III. Preparation of 1X Staining and Destaining Solutions:**

The 2X Solution A and 6X Solution B should be diluted with water for 2 and 6 times, respectively, to produce 1X Solution A and 1X Solution B.

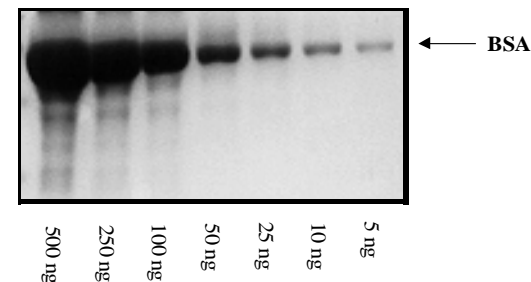
**IV. Gel Staining and Destaining Procedure:**

1. Run SDS-PAGE using standard technique.
2. Place the gel in a microwavable staining tray containing 50-100 ml of the 1X Solution A.
3. Heat the tray in a microwave to the boiling point (1-1.5 min).
4. Gently shake the gel for 3 minutes at room temperature, discard the solution.
5. Rinse the gel with tap water, discard the water solution immediately.
6. Add 50-100 ml of 1X Solution B and microwave to the boiling point (1-1.5 min).
7. Gently shake the gel for 3 minutes, discard the solution.
8. Rinse the gel with water and discard the water solution immediately.
9. Repeat steps 6-8 two times.

As little as 5 ng of protein can be observed at this point against a water-clear background.

**V. Storage and Stability:**

- Store Solution A and Solution B at room temperature.
- Both solutions are stable for at least 1 year.



**VI. Related Buffers and Reagents**

1. 3X SDS-PAGE Loading Buffer
2. SDS Solution (10% in water)
3. Triton X-100 Solution (10% in H<sub>2</sub>O)
4. Sodium Chloride Solution (NaCl, 5 M)
5. EDTA Solution (0.5 M, pH 8.0)
6. Magnesium Chloride Solution (MgCl<sub>2</sub>, 1 M)
7. Orange G DNA Loading Buffer (10X)
8. Potassium Chloride Solution (KCl, 1 M)
9. Sodium Acetate (NaAc, 3 M, pH 5.2)
10. TAE (50X) & TBE (10X)
11. Tris-HCl (1 M, pH 6.8) & Tris-HCl (1.5 M, pH 8.8)
12. Tween 20 Solution (10%)

**VII. Other Key Products Offered:**

13. Apoptosis Detection Kits and Antibodies
14. Cell Proliferation & Cytotoxicity Assays
15. Cell Fractionation kits
16. cAMP and cGMP Assays, Kinase, beta-Secretase Assay kits
17. Glutathione, HDAC, HAT, DNA Damage and Nitric Oxide Assay Kits
18. Adiponectin, CETP, PLTP, Cholesterol Assay kits and Reagents
19. Growth Factors, Cytokines, & Chemokines
20. Molecular Biology Kits and Reagents
21. Monoclonal and Polyclonal Antibodies