

KAMIYA BIOMEDICAL COMPANY

Stains All Gel Staining Kit

For the staining of strongly acidic proteins in SDS-PAGE gels.

Cat. No. KT-792

For Research Use Only. Not for Use in Diagnostic Procedures.

PRODUCT INFORMATION

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PRINCIPLE

Proteins that regulate bone mineralization such as osteocalcin, osteopontin, and BSP II, are abundant in bones and teeth. These acidic proteins are difficult to detect by conventional staining methods of SDS-PAGE gels.

Our Stain All kit is specifically designed to stain strongly acidic proteins in SDS-PAGE gels. The color of the protein band varies depending on the protein's isoelectric point (pI) and chemical modifications like glycosylation and phosphorylation..

COMPONENTS

<u>Reagent</u>	<u>Quantity</u>
Stain Stock	40 mL
Buffer	2 x 200 mL

1 kit can stain 20 mini slab gels.

Materials Required But Not Provided

Pipet
Glass dish for staining
25% isopropanol
Deionized water
Platform shaker
Aluminum foil

STORAGE

Kit components can be stored at room temperature until expiration date.

PRECAUTIONS

1. Read the instructions carefully before beginning the assay.
2. This kit is for research use only, not for human or diagnostic use.
3. Great care has been taken to ensure the quality and reliability of this product. However, it is possible that in certain cases, unusual results may be obtained due to high levels of interfering factors.

PROTOCOLS

Reagent Preparation

1. Stain Solution (prepare immediately prior to use):
 - a. Prepare Stain Solution for 1 gel by diluting 2 mL of stock solution with 18 mL of buffer.
 - b. Protect the Stain Solution from light.

Protocol

Steps to stain 1 mini slab gel

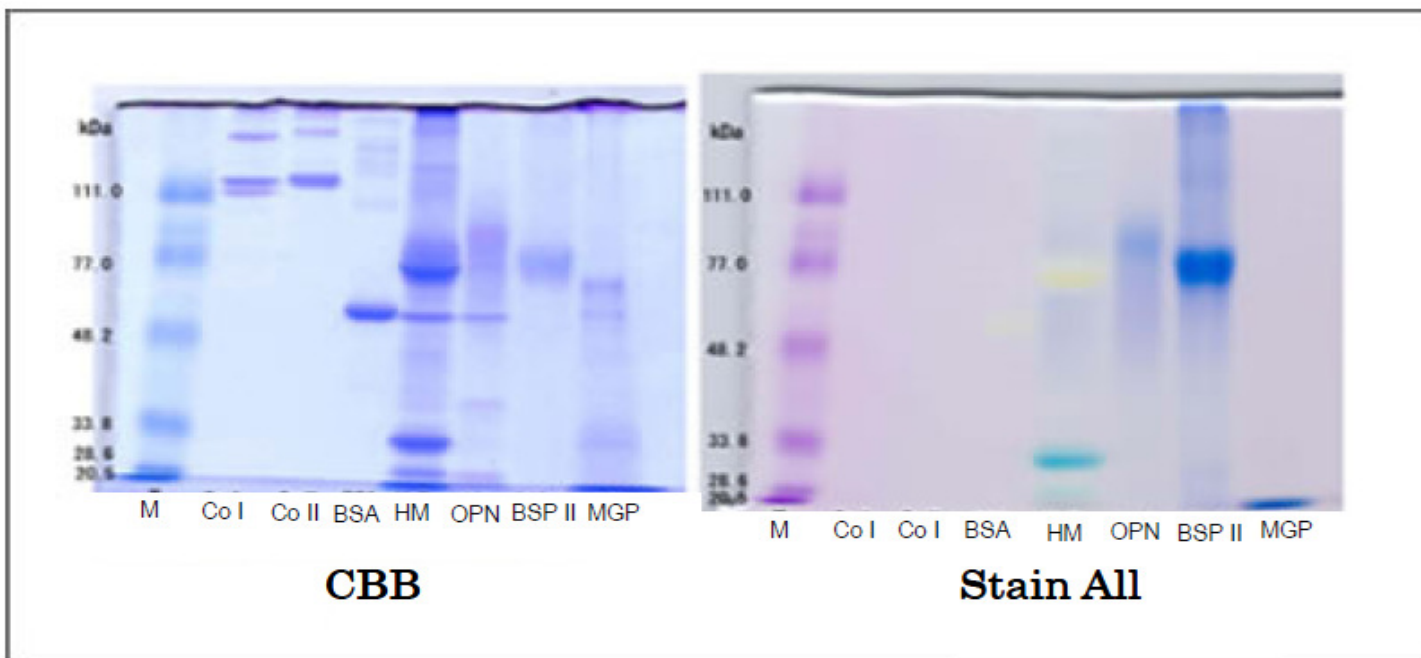
1. Fix the SDS-PAGE gel in 20-30 mL of 25% isopropanol. Shake for 20 minutes.
2. Decant the isopropanol and repeat step 1. Step 1 should be repeated for a total of 4 times to completely remove SDS. Alternatively, soak the gel overnight in 25% isopropanol.

Note: Any remaining SDS in the gel will react with the Stain Solution and interfere with protein staining.

3. Decant the isopropanol then soak the gel in deionized water for 10 minutes.

4. Replace with fresh water and repeat step 3 for a total of 4 times.
5. Decant water and add 20 mL of prepared Staining Solution.
6. Cover dish with aluminum foil to protect from light. Shake for 3 hours.
7. Decant Stain Solution and wash the gel in deionized water at least 2 times.
8. The red color in the background will fade if the gel is left under natural lighting (sunlight) for approximately 10 minutes. The protein bands of various staining intensities and colors will become more visible.

EXAMPLE



M: Molecular weight marker

Co I: Type I collagen

Co II: Type II collagen

BSA: Bovine serum albumin

HM: Human milk total protein

OPN: Human milk osteopontin

BSP II: Bovine bone sialoprotein

MGP: Bovine matrix Gla protein

FOR RESEARCH USE ONLY

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