

New

LIFE SCIENCE

ANALYTICAL



Fluorescent Gel Staining Reagent: Protein Gel Stain Tangerine

Protein Gel Stain Tangerine (in Dimethyl Sulfoxide) [for Electrophoresis]

0.25mL [P3419]

This product is a fluorescent dye used to stain proteins in gels following SDS-PAGE. Its straightforward staining procedure enables the detection of proteins at concentrations as low as 5-10 ng. This product enables staining in water-based solvents without the use of organic solvents, making it safe for use. The staining solution is prepared by diluting the stock reagent 1:5000 with ultrapure water and mixing vigorously. If staining with solvents such as 150 mM NaCl, proteins are not fixed within the gel, allowing transfer to a blotting membrane. This allows stained proteins to be used in subsequent experiments, such as in western blotting. The dye exhibits excitation wavelength (290 nm and 490 nm) and emission wavelength (650 nm). Detection can be performed using a UV transillumination system or imager. It is not suitable for use in two-dimensional (2D) gels or isoelectric focusing (IEF) gels.

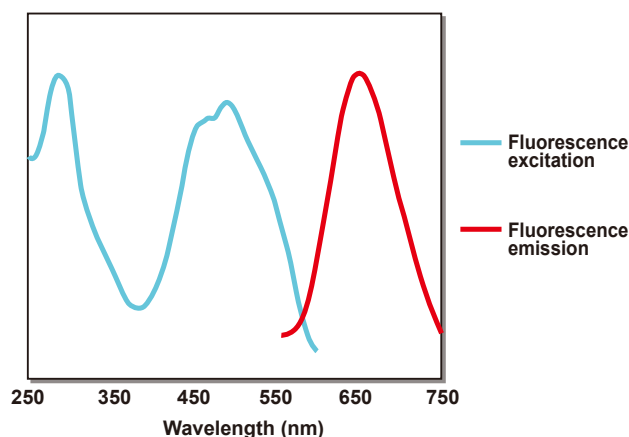
Advantages

- **High Sensitivity:** This product can detect 5 to 10 ng of protein.
- **Rapid Staining:** Staining is completed in as little as 30 to 60 minutes.
- **Simple Procedure:** After staining, simply rinse twice with water and photograph.
- **Safety:** No organic solvents required.

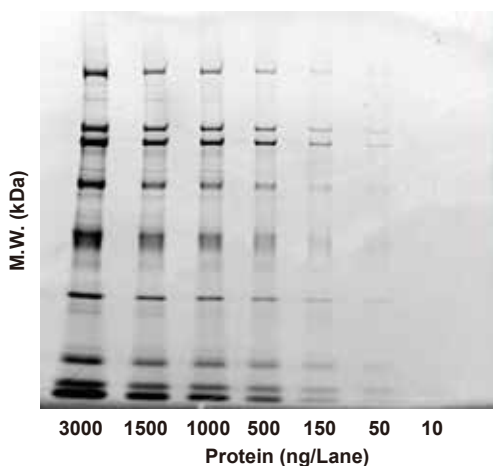
Volume

- For 25 mini gels (Dissolve 10 μ L of P3419 in 50 mL of solvent)

Excitation and Emission Spectra



Application: Staining of Polyacrylamide Gels using P3419



Procedure

1. Prepare the staining solution by diluting the stock reagent 1:5000 with 150 mM NaCl and mixing vigorously.
 - 150 mM NaCl : 50 mL
 - P3419 : 10 μ L
 - ‡ 50mL is required per mini gel.
2. Post-electrophoresis, immerse the gel completely in the staining solution. Stain at room temperature, protected from light, for 30–60 minutes.
3. Remove the staining solution and wash twice with 100 mL of ultrapure water.
4. Carry out detection using a UV-transmitting illumination device or Imager.
e.g., Detection at Ex. 520 nm, Em. 605(20) nm

Fluorescent Gel Staining Reagent: Protein Gel Stain Tangerine

Compatible Buffers/Solvents

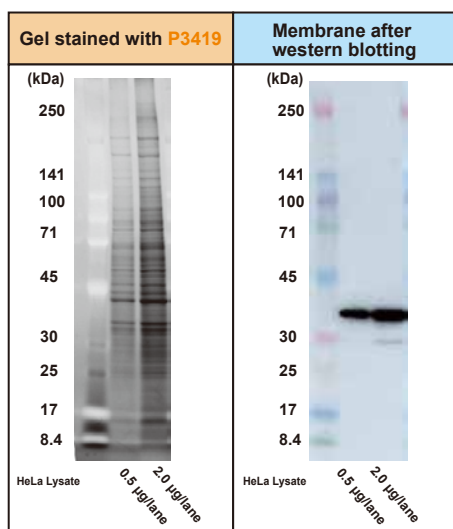
If No Fixation Required

- 150 mM NaCl
- 50 mM Phosphate, 150 mM NaCl (pH 7.0)
- 100 mM MES, 150 mM NaCl (pH 6.0)
- 100 mM Tris-HCl, 150 mM NaCl (pH8.5)
- 100 mM HEPES, 150 mM NaCl (pH7.5)

If Fixation Required

- 7.5(v/v)% Acetic acid
- 12.5(v/v)% Trichloroacetic acid

Application : Western Blotting after P3419 Staining



Procedure

1. Run SDS-PAGE with decreasing amounts of sample on gel.
2. Prepare the staining solution as follows:
 - 150 mM NaCl : 50 mL
 - P3419 : 10 µL
 - ‡ 50mL is required per mini gel.
3. Stain SDS-PAGE gel in the dark at room temperature for 30–60 minutes.
4. Remove staining solution and rinse gel gently with 2x 100 mL of deionized water.
5. Obtain gel images with the following conditions.
Excitation: 520 nm, Emission: 605 nm, Exposure time: 9 s
6. Transfer washed gel to PVDF membrane and stain.

Primary antibody: Anti-GAPDH Monoclonal Antibody

Secondary antibody: Goat Anti-Mouse IgG HRP Conjugate [G0407]

Detection: Chemiluminescence HRP Substrate Solution Kit [C4087]

Comparison of Gel Staining Reagents

Staining Reagent	Times	Detection Sensitivity	Advantages
Fluorescence Stain [P3419]	30 minutes – 1 hour	Several ng	Easy-to-use, simple protocol. Resultant bands are quantifiable. Staining is performed using aqueous solvents (i.e., without organic solvents), making it safe to use. If not fixed, stained gel can be used for western blotting.
Silver Stain [I1309]	~ 1 hour	Several ng	Highly sensitive detection method with sample track record. Both protein and DNA are detectable.
Negative Stain [G0615]	15 – 30 minutes	Several ng	Short staining time. Stained gels can be used for western blotting, etc.
CBB Stain [C3488]	2 hours – over night	Several µg	Easy-to-use, simple protocol. Resultant bands are quantifiable.

Ordering and Customer Service

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