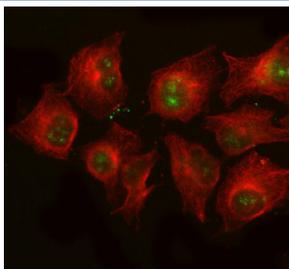


S100P Antibody for IF / S100 Calcium Binding Protein P Antibody for Immunofluorescence (FY12704)

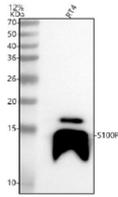
Catalog No.	Formulation	Size
FY12704	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml	100 ug

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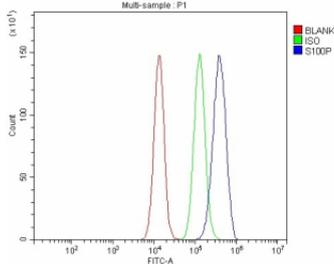
Availability	1-2 days
Species Reactivity	Human
Format	Lyophilized
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Immunogen affinity purified
Buffer	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na ₂ HPO ₄ .
UniProt	P25815
Localization	Nuclear, cytoplasmic
Applications	Western Blot : 0.25-0.5ug/ml Immunocytochemistry : 5ug/ml Immunofluorescence : 5ug/ml Flow Cytometry : 1-3ug/million cells
Limitations	This S100P antibody is available for research use only.



S100P Antibody for IF in cultured cells. Immunofluorescence analysis using S100P Antibody for IF (green) and beta tubulin antibody (red) demonstrates S100 Calcium Binding Protein P / S100P staining predominantly within nuclear regions of the cells, showing punctate signal within the nuclei. Beta tubulin staining outlines the cytoplasmic cytoskeleton and defines overall cell morphology. Cells were incubated with rabbit anti-S100P antibody and mouse anti-beta tubulin antibody followed by DyLight 488 goat anti-rabbit IgG and DyLight 594 goat anti-mouse IgG secondary antibodies. Fluorescent imaging was performed using a fluorescence microscope with appropriate filter sets for the fluorophores.



Western blot analysis of S100P using anti-S100P antibody. Lane 1: human RT4 whole cell lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-S100P antibody at 0.5 ug/ml overnight at 4oC, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal was developed using enhanced chemiluminescent. A predominant band is detected at ~14 kDa, which is typical for S100P due to anomalous SDS-PAGE mobility of EF-hand S100 proteins relative to the ~10 kDa calculated mass.



Flow Cytometry analysis of SiHa cells using anti-S100P antibody. Overlay histogram showing SiHa cells stained with (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-S100P antibody (1 ug/million cells) for 30 min at 20oC. DyLight 488 conjugated goat anti-rabbit IgG (5-10 ug/million cells) was used as secondary antibody for 30 minutes at 20oC. Isotype control antibody (Green line) was rabbit IgG (1 ug/million cells) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.

Description

S100 calcium binding protein P (S100P) is a member of the S100 family of EF-hand calcium-binding proteins encoded by the S100P gene and widely studied in epithelial biology and cancer research. S100P Antibody for IF enables visualization of S100 Calcium Binding Protein P expression using immunofluorescence microscopy, allowing researchers to examine the intracellular distribution and cellular localization of S100P within cultured cells and tissue-derived cell preparations.

S100P is typically localized to the cytoplasm of epithelial cells, where it participates in calcium-dependent signaling pathways that influence cellular proliferation, migration, and survival. Immunofluorescence staining allows investigators to visualize S100P-positive cells while simultaneously observing cellular morphology and nuclear architecture through fluorescent counterstaining. This approach enables clear identification of cytoplasmic S100P staining patterns and supports analysis of protein distribution within individual cells.

S100P Antibody for IF is well suited for fluorescence microscopy applications designed to study subcellular protein localization. By combining the S100P antibody with fluorescent secondary antibodies, researchers can generate bright, high-contrast fluorescent signals that highlight S100P-positive cells and reveal the intracellular distribution of this calcium-binding protein. Immunofluorescence techniques also enable co-localization studies with other fluorescently labeled markers, allowing investigators to examine the spatial relationship between S100P and other cellular proteins or organelles.

The use of a rabbit polyclonal antibody for immunofluorescence detection of S100P provides advantages for fluorescence-based imaging. Rabbit polyclonal antibodies recognize multiple epitopes across the S100P protein, which can improve signal detection and produce strong fluorescent staining in cells expressing the target protein. Because a rabbit polyclonal S100P antibody binds multiple antigenic sites, it can enhance detection sensitivity and produce robust fluorescent labeling in immunofluorescence assays.

S100P Antibody for IF supports visualization of S100P-positive epithelial cells and enables investigation of S100P distribution within the cellular environment. Immunofluorescence detection of S100 Calcium Binding Protein P allows researchers to study epithelial cell biology, examine subcellular protein localization, and investigate signaling pathways involving S100P in normal tissues and tumor-derived cell models.

Application Notes

Optimal dilution of the S100P Antibody for IF should be determined by the researcher.

Immunogen

A synthetic peptide corresponding to a sequence at the C-terminus of human S100P was used as the immunogen for the S100P Antibody for IF.

Storage

After reconstitution, the S100P antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

Alternate Names

S100 calcium binding protein P antibody, S100P protein antibody, S100P calcium-binding protein antibody, S100P antigen antibody