

Monoclonal Antibody to S100 - FITC

Alternate names:	Astrocyte Marker, S-100 protein, S-100 protein alpha chain, S-100 protein alpha subunit, S-100 protein beta chain, S-100 protein beta subunit, S100 Alpha, S100 Beta, S100 Calcium binding protein, S100A, S100B
Catalog No.:	AM10036FC-S
Quantity:	0.1 mg
Concentration:	0.2 mg/ml
Background:	S100 protein is a type of low molecular weight protein found in vertebrates characterized by two calcium binding sites of the helix-loop-helix ("EF-hand type") conformation. There are at least 21 different types of S100 proteins. The name is derived from the fact that the protein is 100% Soluble in ammonium sulfate at neutral pH. Most S100 proteins are homodimeric, consisting of two identical polypeptides held together by non-covalent bonds. S100A is composed of an alpha and beta chain whereas S100B is composed of two beta chains. Although S100 proteins are structurally similar to calmodulin, they differ in that they are cell-specific, expressed in particular cells at different levels depending on environmental factors. To contrast, calmodulin is a ubiquitous and universal intracellular Ca ⁺⁺ receptor widely expressed in many cells. S-100 is normally present in cells derived from the neural crest (Schwann cells, melanocytes, and glia cells), chondrocyte, adipocytes, myoepithelial cells, macrophages, Langerhans cells, dendritic cells, and keratinocytes. It may be present in some breast epithelial cells.
Uniprot ID:	P02639
NCBI:	NP_001092512
GeneID:	528735
Host / Isotype:	Mouse / IgG1
Clone:	S100217
Immunogen:	Purified bovine S100 protein Remarks: Molecular weight of antigen: ~22 kDa
Format:	State: Liquid purified Ig fraction. Purification: Protein A Chromatography. Buffer Solution: PBS, pH 7.4 Preservatives: 0.05% Sodium Azide Stabilizers: 1% BSA Label: FITC
Applications:	Immunohistochemistry: 1/50-1/100, use streptavidin~biotin system or polymer system, incubate 30 minutes at room temperature. FFPE tissue section requires antigen retriever (boiling tissue in 10 mM citrate, pH 6.0 for 20 mins, followed by cooling at RT for 20 mins).

For research and in vitro use only. Not for diagnostic or therapeutic work.

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Immunocytochemistry.

Immunofluorescence: 10-20 µg/ml (1/10-1/20), incubate for 2 hours in the dark at RT or it can also be incubated overnight at 4°C.

Flow Cytometry: 0.2-1.0 µg/0.1 ml (1/200-1/1,000).

Recommended Positive Control: Melanoma or schwannoma.

Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

Specificity:

This antibody stains schwannoma, ependymomas, astroglomas, almost all benign and malignant melanoma and their metasis.

Cellular Localization: Cytoplasmic.

Species Reactivity: **Tested:** Human, Monkey, Bovine, Rat and Mouse

Storage:

Store the antibody undiluted at 2-8°C.

This product is photosensitive and should be protected from light.

Shelf life: One year from despatch.

General Readings:

1. Wosik, K et. al. J. Neurosci. 27: 9032-9042, 2007.
2. Joshi, MG et. al. Modern Pathol. 9: 57-62, 1996.

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