

**S100 Protein, Mouse MAb anti-bovine**

<b>Catalog number:</b> MM-1017-01	0.5 ml	Concentrated	IgG1	0.2 mg/ml
MM-1017-02	1.0 ml	Concentrated	IgG1	0.2 mg/ml
MM-1017-04	7.0 ml	Prediluted for IHC	IgG1	5µg/ml
MM-1017-15	0.5 ml	FITC~conjugated	IgG1	0.2 mg/ml
MM-1017-16	1.0 ml	FITC~conjugated	IgG1	0.2 mg/ml

**Buffer:** The concentrated antibodies are supplied in PBS with 1% BSA, 0.05% azide, pH 7.4. The Prediluted antibody is supplied in our Universal antibody dilution buffer (AR-6526) green in color.

**Description:** 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<sup>++</sup> 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. **This antibody stains schwannoma, ependymomas, astroglomas, almost all benign and malignant melanoma and their metasis.**

**Intended Use:** Immunohistochemistry (IHC) and Immunocytochemistry (ICC), Immunofluorescence (IF), Flow cytometry (not tested at our lab).

**Storage:** 2-8°C

**Clone:** S100 217                      **Isotype:** IgG1/κ

**Epitope:** Not determined

**Molecular weight of antigen:** ~22 kDa

**Immunogen:** Purified bovine S100 protein

**Species reactivity:** Human, monkey, bovine, rat, mouse, others not tested.

**Cellular Localization:** Cytoplasmic

**Recommended positive control:** Melanoma or schwannoma

**Application:** IHC, ICC (frozen or formalin-fixed paraffin-embedded (FFPE) tissue sections, cell smears.

For IHC dilute conc. antibodies 1:50-1:100, use streptavidin~biotin system or polymer system, incubate 30 minutes at room temperature.

Prediluted antibody is ready to be used for IHC.

IF, FITC~conjugated antibodies 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: FITC~conjugated antibodies, 0.2-1.0 µg/0.1 ml (1:200-1:1,000) (Not tested in our lab).

The optimum dilution should be determined by the individual lab.

**General References**

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

**Limitation and warranty:** Our warranty is limited to the actual price paid for the product. We are not liable for any property damage, personnel injury, time, effort or economic loss due to our product.

**MSDS:** This product contains 0.05 % sodium azide as a preservative, appropriate care should be taken in handling. National Institute of Occupational Safety and Health has warning that sodium azide can react with lead, copper, brass or solder in the plumbing system and forms hydrazoic acid in acidic condition. Discard with copious amount of water. Avoid skin and eye contact with all laboratory products. Use appropriate lab. gear, lab coat, gloves and safety glasses. Do not ingest any lab. products. This product is not approved for administration in human or animals.

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