**S100 Protein Ab-1 (Clone 4C4.9)**

**Mouse Monoclonal Antibody**

Cat. #MS-296-P0, -P1, or -P (0.1ml, 0.5ml, or 1.0ml at 200 µg/ml) (Purified Ab with BSA and Azide)

Cat. #MS-296-P1ABX or -PABX (0.1ml or 0.2ml at 1.0mg/ml) (Purified Ab without BSA and Azide)

Cat. #MS-296-B0, -B1, or -B (0.1ml, 0.5ml, or 1.0ml at 200 µg/ml) (Biotin-Labeled Ab with BSA and Azide)

Cat. #MS-296-R7 (7.0ml) (Ready-to-Use for Immunohistochemistry)

Cat. #MS-296-RQ (12.0ml) (Ready-to-Use for Immunohistochemistry)

Cat. #MS-296-PCS (5 Slides) (Positive Control for Histology)

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**Please note this data sheet has been changed effective December 6, 2011**

**Description:** S100 belongs to the family of calcium binding proteins such as calmodulin and troponin C. S100A is composed of an alpha and beta chain whereas S100B is composed of two beta chains. S100 protein is also expressed in the antigen presenting cells such as the Langerhans cells in skin and interdigitating reticulum cells in the paracortex of lymph nodes.

**Comments:** Antibody to S100 stains Schwannomas, ependymomas, astroglomas, almost all benign and malignant melanomas and their metastases. Ab-1 is excellent for immuno-histochemical staining of formalin-fixed, paraffin-embedded tissues. S100 protein is highly soluble and may be eluted from frozen tissue during staining.

**Mol. Wt. of Antigen:** ~22kDa (non-reduced); ~11kDa (reduced)

**Epitope:** Not determined

**Species Reactivity:** Human, Cow, Rat, and Mouse. Others-not known.

**Clone Designation:** 4C4.9

**Ig Isotype:** IgG2a

**Immunogen:** Purified bovine brain S100 protein

**Applications and Suggested Dilutions:**

- Immunohistology (Formalin/paraffin) (Ab 1:100 for 20 min at RT using UltraVision LP Detection Systems)
- Immunohistology (Formalin/paraffin) (Ab 1:100 for 20 min at RT using UltraVision Quanto Detection Systems)

* [No special pretreatment is required for histo-chemical staining of formalin/paraffin tissues.]

The optimal dilution for a specific application should be determined by the investigator.

**Positive Control:** Melanoma or Schwannoma

**Cellular Localization:** Cytoplasmic

**Storage and Stability:** Antibody with sodium azide is stable for 24 months when stored at 2-8°C. Antibody WITHOUT sodium azide is stable for 36 months when stored at below 0°C.

**Supplied As:**

- 200µg/ml antibody purified from the ascites fluid by Protein A chromatography. Prepared in 10mM PBS, pH 7.4, with 0.2% BSA and 0.09% sodium azide. Also available without BSA and azide at 1mg/ml,

or

- Prediluted antibody which is ready-to-use for staining of formalin-fixed, paraffin-embedded tissues.

**Suggested References:**


**Limitations and Warranty:**

Our products are intended FOR RESEARCH USE ONLY and are not approved for clinical diagnosis, drug use or therapeutic procedures. No products are to be construed as a recommendation for use in violation of any patents. We make no representations, warranties or assurances as to the accuracy or completeness of information provided on our data sheets and website. Our warranty is limited to the actual price paid for the product. Lab Vision is not liable for any property damage, personal injury, time or effort or economic loss caused by our products.

**Material Safety Data:**

This product is not licensed or approved for administration to humans or to animals other than the experimental animals. Standard Laboratory Practices should be followed when handling this material. The chemical, physical, and toxicological properties of this material have not been thoroughly investigated. Appropriate measures should be taken to avoid skin and eye contact, inhalation, and ingestion. The material contains 0.09% sodium azide as a preservative. Although the quantity of azide is very small, appropriate care should be taken when handling this material as indicated above. The National Institute of Occupational Safety and Health has issued a bulletin citing the potential explosion hazard due to the reaction of sodium azide with copper, lead, brass, or solder in the plumbing systems. Sodium azide forms hydrazoic acid in acidic conditions and should be discarded in a large volume of running water to avoid deposits forming in metal drainage pipes.

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**For Research Use Only**
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**Additional Suggested References:**


7. Korabiewska M; Mirecka J; Brinck U; Szuta M; Styulkowska J; Wiese G; Bartkowski S; Schauer A. Immunohistochemical demonstration of S100 protein in malignant melanomas of the facial skin and oral cavity. *Journal of Nihon University School of Dentistry, 1994 Jun, 36(2):117-21.*


14. Colasante A; Poletti V; Rosini S; Ferracini R; Musiani P. Langerhans cells in Langerhans cell histiocytosis and peripheral adenocarcinomas of the lung. *American Review of Respiratory Disease, 1993 Sep, 148(3):752-9.*