

# S100 (Astrocyte Marker); Clone 4C4.9 (Concentrate)


**Availability/Contents:**

<u>Item #</u>	<u>Volume</u>
RA0285-C.5	0.5 ml

**Description:**


Species: Mouse  
 Immunogen: Purified bovine brain S100 protein  
 Clone: 4C4.9  
 Isotype: IgG2a, kappa  
 Entrez Gene ID: 6271 (Human); 431787 (Cow); 20193 (Mouse); 295214 (Rat)  
 Hu Chromosome Loc.: 1q21.3  
 Synonyms: Bpb; NEF; S100-A1; S100 Alpha Chain; S100 Beta Chain; S100 Calcium Binding Protein A1; S100 Calcium Binding Protein B; S100 Calcium Binding Protein Beta Neural  
 Mol. Weight of Antigen: 10-12kDa  
 Format: 200µg/ml of Ab purified from Bioreactor Concentrate by Protein A/G. Prepared in 10mM PBS with 0.05% BSA & 0.05% azide.  
 Specificity: S-100 protein has been found in normal melanocytes, Langerhans cells, histiocytes, chondrocytes, lipocytes, skeletal and cardiac muscle, Schwann cells, epithelial and myoepithelial cells of the breast, salivary and sweat glands, as well as in glial cells. Neoplasms derived from these cells also express S-100 protein, albeit non-uniformly. A large number of well-differentiated tumors of the salivary gland, adipose and cartilaginous tissue, and Schwann cell-derived tumors express S-100 protein. Almost all malignant melanomas and cases of histiocytosis X are positive for S-100 protein.  
 Background: S100 belongs to the family of calcium binding proteins. S100A and S100B proteins are two members of the S100 family. S100A is composed of an alpha and beta chain whereas S100B is composed of two beta chains. Despite the fact that S-100 protein is a ubiquitous substance, its demonstration is of great value in the identification of several neoplasms, particularly melanomas and their metastases.  
 Species Reactivity: Human, Mouse, Rat, Cow. Others not known.  
 Positive Control: Brain and Melanoma.  
 Cellular Localization: Cytoplasmic  
 Titer/ Working Dilution: Immunohistochemistry (Frozen and Formalin-fixed): 0.5-1 µg/ml  
 Flow Cytometry: 0.5-1 µg/million cells  
 Immunofluorescence: 1-2 µg/ml  
 Western Blotting: 0.5-1 µg/ml  
 Immunoprecipitation: 1-2 µg/500µg protein lysate  
 Microbiological State: This product is not sterile.

Storage: 2° C  8° C

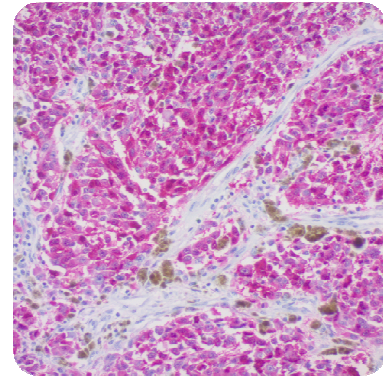


ScyTek Laboratories, Inc.  
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Logan, UT 84321  
U.S.A.



 EmergoEurope (31)(0) 70 345-8570  
Molsnstraat 15  
2513 BH Hague, The Netherlands

**Uses/Limitations:** Not to be taken internally.  
 For Research Use Only.  
 This product is intended for qualitative immunohistochemistry with normal and neoplastic formalin-fixed, paraffin-embedded tissue sections, to be viewed by light microscopy.  
 Do not use if reagent becomes cloudy.  
 Do not use past expiration date.  
 Non-Sterile.



Formalin-fixed, paraffin-embedded human melanoma stained with S100; Clone 4C4.9.

**Ordering Information and Current Pricing at [www.scytek.com](http://www.scytek.com)**

**Procedure:**

1. **Tissue Section Pretreatment (Highly Recommended):** Staining of formalin fixed, paraffin embedded tissue sections is significantly enhanced by pretreatment with Citrate Plus (ScyTek catalog# CPL500).
2. **Primary Antibody Incubation Time:** We suggest an incubation period of 30 minutes at room temperature. However, depending upon the fixation conditions and the staining system employed, optimal incubation should be determined by the user.
3. **Visualization:** For maximum staining intensity we recommend the “UltraTek HRP Anti-Polyvalent Lab Pack” (ScyTek catalog# UHP125, see IFU for instructions) combined with the “DAB Chromogen/Substrate Bulk Pack (High Contrast)” (ScyTek catalog# ACV500, see IFU for instructions).

**Precautions:** Contains Sodium Azide as a preservative (0.09% w/v).  
 Do not pipette by mouth.  
 Avoid contact of reagents and specimens with skin and mucous membranes.  
 Avoid microbial contamination of reagents or increased nonspecific staining may occur.  
 This product contains no hazardous material at a reportable concentration according to U.S. 29 CFR 1910.1200, OSHA Hazardous Communication Standard and EC Directive 91/155/EC.


**References:**

1. Joshi MG *et. al.* Modern Pathology, 1996, 9(1):57-62.
2. McLaren KM *et. al.* Human Pathology, 1996, 27(7):633-6.

**Warranty:**

No products or “Instructions For Use (IFU)” 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 IFU or website. Our warranty is limited to the actual price paid for the product. ScyTek Laboratories, Inc. is not liable for any property damage, personal injury, time or effort or economic loss caused by our products. Immunohistochemistry is a complex technique involving both histological and immunological detection methods. Tissue processing and handling prior to immunostaining can cause inconsistent results. Variations in fixation and embedding or the inherent nature of the tissue specimen may cause variations in results. Endogenous peroxidase activity or pseudoperoxidase activity in erythrocytes and endogenous biotin may cause non-specific staining depending on detection system used.

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