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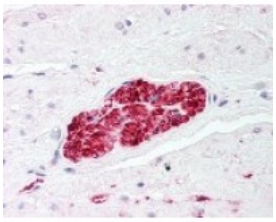
# S100 Protein Antibody

CATALOG NUMBER: 49-504



Immunohistochemistry staining of S100 Protein in prostate, nerve tissue using S100 Protein Antibody.

## Specifications

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|---|---|
| **SPECIES REACTIVITY:** | Bovine, Human |
| **TESTED APPLICATIONS:** | ELISA, IHC, WB |
| **APPLICATIONS:** | S100 Protein antibody can be used in ELISA starting at 1:2000 - 1:4000, Western Blot starting at 1:2000 - 1:4000, immunohistochemistry starting at 5 ug/mL, and immunoprecipitation |
| **USER NOTE:** | Optimal dilutions for each application to be determined by the researcher. |
| **IMMUNOGEN:** | S100 Protein antibody was raised against an internal peptide of S100 Protein (Bovine). |
| **HOST SPECIES:** | Rabbit |

## Properties

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|---|---|
| **PURIFICATION:** | Protein A Column |
| **PHYSICAL STATE:** | Lyophilized |
| **STORAGE CONDITIONS:** | Store S100 Protein antibody at 4 ˚C or -20 ˚C. As with all antibodies avoid freeze/thaw cycles. |
| **CLONALITY:** | Polyclonal |
| **CONJUGATE:** | Unconjugated |

## Additional Info

| | |
|---|---|
| **ALTERNATE NAMES:** | S100A, Protein S100-A1, S-100 protein alpha chainS100, S100-alpha |
| **ACCESSION NO.:** | P23297 |
| **PROTEIN GI NO.:** | 134136 |
| **OFFICIAL SYMBOL:** | S100A1 |
| **GENE ID:** | 6271 |

## Background

**BACKGROUND:** S-100 protein derived from brain tissue is an acidic calcium-binding protein with molecular weight of about 21 kDa. In human brain tissue S-100 protein is mainly presented as two isoforms - bb homodimer (S-100b) and ab heterodimer (S-100a). Because of its predominant location in astroglial cells S-100 protein can be used as a sensitive and reliable marker for central nervous system injury. Structural damage of glial cells causes leakage

of S-100 protein into the extracellular matrix and into cerebrospinal fluid, further releasing into the bloodstream. Measurements of S-100 protein in patient serum samples are useful in monitoring of traumatic brain injury, ischemic brain damage after circulatory arrests, and in diagnosis and prognosis of clinical outcome in acute stroke. Although predominant among the water-soluble brain proteins, S-100 is also found in a variety of other tissues. S-100 is an intracellular protein that weakly binds calcium. It binds zinc very tightly, however, and this appears to increase the affinity of the protein for calcium. Distinct binding sites, with different affinities, exist for both ions on each monomer. Physiological concentrations of potassium ion antagonize the binding of both divalent cations, especially affecting high-affinity calcium-binding sites.

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December 13, 2016