

# S100B Antibody

Affinity Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP5074D

## Product Information

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<b>Application</b>	WB, FC, IHC-P-Leica, E
<b>Primary Accession</b>	<a href="#">P04271</a>
<b>Other Accession</b>	<a href="#">Q6YNR6</a>
<b>Reactivity</b>	Human, Mouse, Rat
<b>Predicted</b>	Rabbit
<b>Host</b>	Rabbit
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	Rabbit IgG
<b>Clone Names</b>	RB22934
<b>Calculated MW</b>	10713

## Additional Information

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<b>Gene ID</b>	6285
<b>Other Names</b>	Protein S100-B, S-100 protein beta chain, S-100 protein subunit beta, S100 calcium-binding protein B, S100B
<b>Target/Specificity</b>	This S100B antibody is generated from rabbits immunized with S100B recombinant protein.
<b>Dilution</b>	WB~~1:1000 FC~~1:10~50 IHC-P-Leica~~1:500 E~~Use at an assay dependent concentration.
<b>Format</b>	Purified polyclonal antibody supplied in PBS with 0.05% (V/V) Proclin 300. This antibody is purified through a protein A column, followed by peptide affinity purification.
<b>Storage</b>	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
<b>Precautions</b>	S100B Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

## Protein Information

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<b>Name</b>	S100B {ECO:0000303   PubMed:6487634, ECO:0000312   HGNC:HGNC:10500}
<b>Function</b>	Small zinc- and- and calcium-binding protein that is highly expressed in astrocytes and constitutes one of the most abundant soluble proteins in brain (PubMed: <a href="#">20950652</a> , PubMed: <a href="#">6487634</a> ). Weakly binds calcium but binds zinc

very tightly-distinct binding sites with different affinities exist for both ions on each monomer (PubMed:[20950652](#), PubMed:[6487634](#)). Physiological concentrations of potassium ion antagonize the binding of both divalent cations, especially affecting high-affinity calcium-binding sites (By similarity). Acts as a neurotrophic factor that promotes astrocytosis and axonal proliferation (By similarity). Involved in innervation of thermogenic adipose tissue by acting as an adipocyte-derived neurotrophic factor that promotes sympathetic innervation of adipose tissue (By similarity). Binds to and initiates the activation of STK38 by releasing autoinhibitory intramolecular interactions within the kinase (By similarity). Interaction with AGER after myocardial infarction may play a role in myocyte apoptosis by activating ERK1/2 and p53/TP53 signaling (By similarity). Could assist ATAD3A cytoplasmic processing, preventing aggregation and favoring mitochondrial localization (PubMed:[20351179](#)). May mediate calcium-dependent regulation on many physiological processes by interacting with other proteins, such as TPR-containing proteins, and modulating their activity (PubMed:[22399290](#)).

#### Cellular Location

Cytoplasm. Nucleus. Secreted {ECO:0000250|UniProtKB:P50114}  
Note=Secretion into the medium is promoted by interaction with isoform CLSTN3beta of CLSTN3. {ECO:0000250|UniProtKB:P50114}

#### Tissue Location

Although predominant among the water-soluble brain proteins, S100 is also found in a variety of other tissues

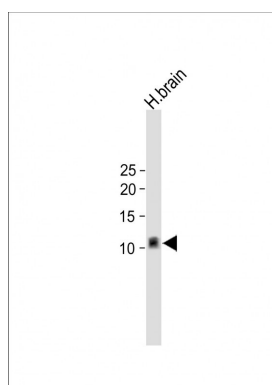
## Background

S100B is a member of the S100 family of proteins containing 2 EF-hand calcium-binding motifs. S100 proteins are localized in the cytoplasm and/or nucleus of a wide range of cells, and involved in the regulation of a number of cellular processes such as cell cycle progression and differentiation. S100 genes include at least 13 members which are located as a cluster on chromosome 1q21; however, this gene is located at 21q22.3. This protein may function in Neurite extension, proliferation of melanoma cells, stimulation of Ca<sup>2+</sup> fluxes, inhibition of PKC-mediated phosphorylation, astrocytosis and axonal proliferation, and inhibition of microtubule assembly. Chromosomal rearrangements and altered expression of this gene have been implicated in several neurological, neoplastic, and other types of diseases, including Alzheimer's disease, Down's syndrome, epilepsy, amyotrophic lateral sclerosis, melanoma, and type I diabetes.

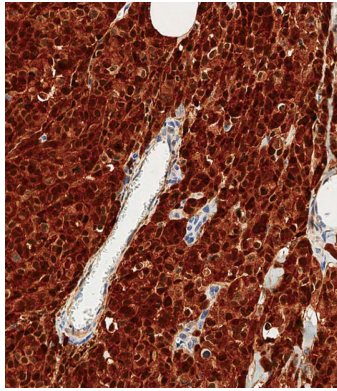
## References

Davila, S., et al. Genes Immun. 11(3):232-238(2010) Mori, T., et al. Glia 58(3):300-314(2010) Steiner, J., et al. Psychoneuroendocrinology 35(2):321-324(2010)

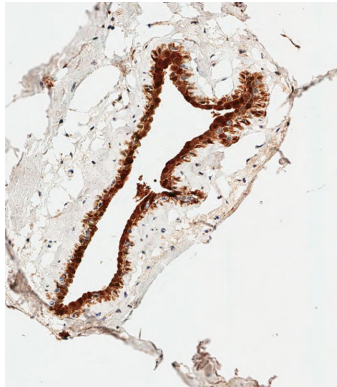
## Images



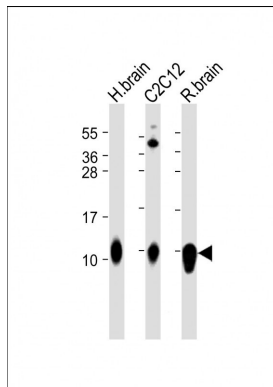
All lanes: Anti-S100B Antibody at 1:125 dilution + Human brain lysate Lysates/proteins at 20 µg per lane.  
Secondary: Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (ASP1615) at 1/15000 dilution. Observed band size: 11 KDa Blocking/Dilution buffer: 5% NFDM/TBST.



Immunohistochemical analysis of paraffin-embedded Human melanoma tissue using AP5074D performed on the Leica® BOND RXm. Tissue was fixed with formaldehyde at room temperature, antigen retrieval was by heat mediation with a EDTA buffer (pH9. 0). Samples were incubated with primary antibody(1:500) for 1 hours at room temperature. A undiluted biotinylated CRF Anti-Polyvalent HRP Polymer antibody was used as the secondary antibody.



Immunohistochemical analysis of paraffin-embedded Human breast tissue using AP5074D performed on the Leica® BOND RXm. Tissue was fixed with formaldehyde at room temperature, antigen retrieval was by heat mediation with a EDTA buffer (pH9. 0). Samples were incubated with primary antibody(1:500) for 1 hours at room temperature. A undiluted biotinylated CRF Anti-Polyvalent HRP Polymer antibody was used as the secondary antibody.



All lanes : Anti-S100B Antibody at 1:2000 dilution Lane 1: Human brain lysate Lane 2: C2C12 whole cell lysate Lane 3: Rat brain lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 11 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.