

S100B/S-100 Antibody (Center)
Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP14936C

Specification

S100B/S-100 Antibody (Center) - Product Information

Application	WB,E
Primary Accession	P04271
Other Accession	P04631 , Q6YNR6 , P50114 , P02638 , NP_006263.1
Reactivity	Human
Predicted	Bovine, Mouse, Rabbit, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	10713
Antigen Region	28-56

S100B/S-100 Antibody (Center) - Additional Information

Gene ID 6285

Other Names

Protein S100-B, S-100 protein beta chain, S-100 protein subunit beta, S100 calcium-binding protein B, S100B

Target/Specificity

This S100B/S-100 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 28-56 amino acids from the Central region of human S100B/S-100.

Dilution

WB~~1:1000

E~~Use at an assay dependent concentration.

Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage

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.

Precautions

S100B/S-100 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

S100B/S-100 Antibody (Center) - Protein Information

Name S100B {ECO:0000303|PubMed:6487634, ECO:0000312|HGNC:HGNC:10500}

Function Small zinc- and calcium-binding protein that is highly expressed in astrocytes and constitutes one of the most abundant soluble proteins in brain (PubMed:[20950652](#), PubMed:[6487634](#)). 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

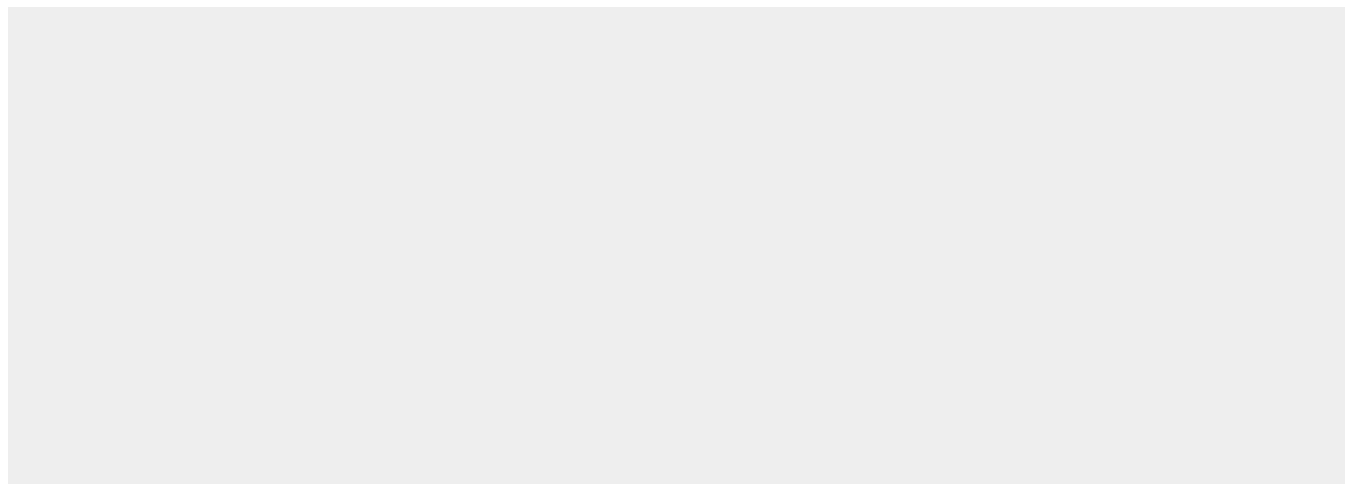
Although predominant among the water-soluble brain proteins, S100 is also found in a variety of other tissues

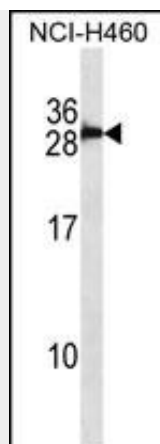
S100B/S-100 Antibody (Center) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

S100B/S-100 Antibody (Center) - Images





S100B/S-100 Antibody (Center) (Cat. #AP14936c) western blot analysis in NCI-H460 cell line lysates (35ug/lane). This demonstrates the S100B/S-100 antibody detected the S100B/S-100 protein (arrow).

S100B/S-100 Antibody (Center) - Background

The protein encoded by this gene 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^{2+} 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.

S100B/S-100 Antibody (Center) - References

Sahoo, N., et al. FEBS Lett. 584(18):3896-3900(2010)
Lin, J., et al. J. Biol. Chem. 285(35):27487-27498(2010)
van Dieck, J., et al. FEBS Lett. 584(15):3269-3274(2010)
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Boutsikou, T., et al. Mediators Inflamm. 2010, 790605 (2010) :