10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

S100B Antibody

Mouse Monoclonal Antibody (Mab)
Catalog # AM1942b

Product Information

Application	WB, E
Primary Accession	P04271
Other Accession	Q6YNR6, NP_006263.1
Reactivity	Mouse
Predicted	Rabbit, Rat, Bovine, Chicken
Host	Mouse
Clonality	Monoclonal
Isotype	IgM,k
Clone Names	271CT14.3.3
Calculated MW	10713

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 monoclonal antibody is generated from mouse immunized with S100B recombinant protein.
Dilution	WB~~1:500~1000 E~~Use at an assay dependent concentration.
Format	Purified monoclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Euglobin precipitation followed by dialysis against PBS.
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 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

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

Background

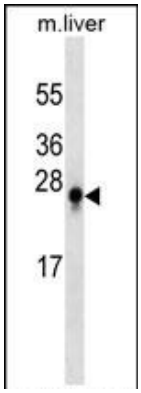
The protein encoded by this gene is a member of the S100 family of proteins containing 2 EF-hand calcium-binding motifs. S100 proteins are localized in the cytoplasm and/or nucleus of a wide range of cells, and involved in the regulation of a number of cellular processes such as cell cycle progression 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 Ca2+ 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

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)
Egberts, F., et al. Anticancer Res. 30(5):1799-1805(2010)
Boutsikou, T., et al. Mediators Inflamm. 2010, 790605 (2010) :

Images

S100B Antibody (Cat. #AM1942b) western blot analysis in mouse liver tissue lysates (35µg/lane).This demonstrates the S100B antibody detected the S100B protein (arrow).



Citations

- Immunofluorescence analysis of sensory nerve endings in the interosseous membrane of the forearm

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