10320 Camino Santa Fe, Suite G
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S100B / S100 Beta Antibody (clone 9A11B9)

Mouse Monoclonal Antibody
Catalog # ALS12831

Specification

S100B / S100 Beta Antibody (clone 9A11B9) - Product Information

Application	**WB, IHC**
Primary Accession	P04271
Reactivity	**Human**
Host	**Mouse**
Clonality	**Monoclonal**
Calculated MW	**11kDa KDa**

S100B / S100 Beta Antibody (clone 9A11B9) - 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
Purified full-length recombinant S100B-GST expressed in E. Coli strain BL21 (DE3)

Reconstitution & Storage
Long term: -20°C; Short term: -20°C

Precautions
S100B / S100 Beta Antibody (clone 9A11B9) is for research use only and not for use in diagnostic or therapeutic procedures.

S100B / S100 Beta Antibody (clone 9A11B9) - 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:6487634, PubMed:20950652). Weakly binds calcium but binds zinc very tightly-distinct binding sites with different affinities exist for both ions on each monomer (PubMed:6487634, PubMed:20950652). 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

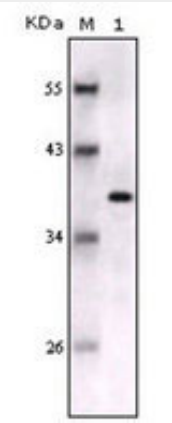
Volume
50 µl

S100B / S100 Beta Antibody (clone 9A11B9) - Protocols

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

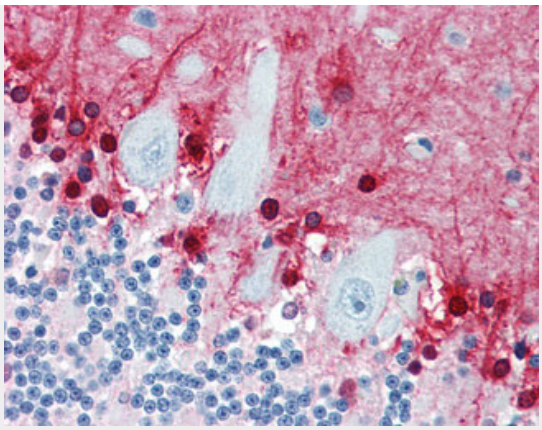
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

S100B / S100 Beta Antibody (clone 9A11B9) - Images

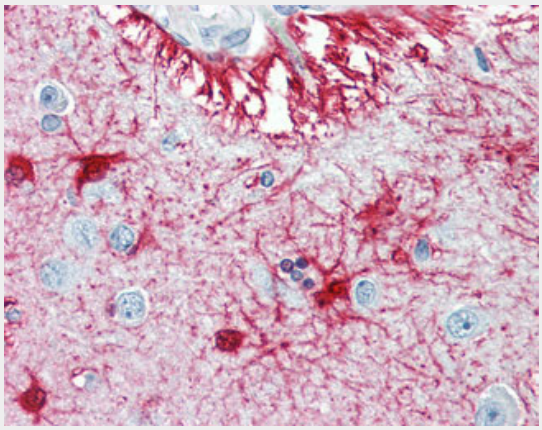


Western blot using S100B mouse monoclonal antibody against full-length S100B recombinant protein.

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Anti-S100B antibody IHC of human brain, cerebellum.



Anti-S100B antibody IHC of human brain, cortex.

S100B / S100 Beta Antibody (clone 9A11B9) - Background

Weakly binds calcium but binds zinc very tightly- 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. Binds to and initiates the activation of STK38 by releasing autoinhibitory intramolecular interactions within the kinase. Interaction with AGER after myocardial infarction may play a role in myocyte apoptosis by activating ERK1/2 and p53/TP53 signaling. Could assist ATAD3A cytoplasmic processing, preventing aggregation and favoring mitochondrial localization. May mediate calcium-dependent regulation on many physiological processes by interacting with other proteins, such as TPR-containing proteins, and modulating their activity.

S100B / S100 Beta Antibody (clone 9A11B9) - References

Allore R.J.,et al.J. Biol. Chem. 265:15537-15543(1990).
Ebert L.,et al.Submitted (JUN-2004) to the EMBL/GenBank/DDBJ databases.
Hattori M.,et al.Nature 405:311-319(2000).
Mural R.J.,et al.Submitted (SEP-2005) to the EMBL/GenBank/DDBJ databases.
Jensen R.,et al.J. Neurochem. 45:700-705(1985).