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Anti-S-100(Beta-subunit) Antibody (Monoclonal, SH-B1)

Catalog # ABO10472

Specification

Anti-S-100(Beta-subunit) Antibody (Monoclonal, SH-B1) - Product Information

Application	**IHC-P**
Primary Accession	P04631
Host	**Mouse**
Isotype	**Mouse IgG1**
Reactivity	**Human, Rat**
Clonality	**Monoclonal**
Format	**Lyophilized**

Description
Mouse IgG monoclonal antibody for S-100 (beta-subunit), S100 calcium binding protein B (S100B) detection. Tested with IHC-P in Human;rabbit;rat. No cross reactivity with other proteins.

Reconstitution
Add 1ml of PBS buffer will yield a concentration of 100ug/ml.

Anti-S-100(Beta-subunit) Antibody (Monoclonal, SH-B1) - Additional Information

Gene ID 25742

Other Names
Protein S100-B, S-100 protein beta chain, S-100 protein subunit beta, S100 calcium-binding protein B, S100b

Calculated MW
10744 MW KDa

Application Details
Immunohistochemistry(Paraffin-embedded Section), 1-2 µg/ml, Human, rabbit, rat, By Heat

Subcellular Localization
Cytoplasm . Nucleus .

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

Protein Name
Protein S100-B

Contents
Mouse ascites fluid, 1.2% sodium acetate, 2mg BSA, with 0.01mg NaN3 as preservative.

Immunogen
Bovine brain S-100b.

Purification
Ascites

Cross Reactivity
No cross reactivity with other proteins

Storage

At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated freezing and thawing.

Sequence Similarities
Belongs to the S-100 family.

Anti-S-100(Beta-subunit) Antibody (Monoclonal, SH-B1) - Protein Information

Name S100b {ECO:0000303|PubMed:19910580, ECO:0000312|RGD:3615}

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:14621986, PubMed:15823027, PubMed:18949447, PubMed:20351179). Weakly binds calcium but binds zinc very tightly-distinct binding sites with different affinities exist for both ions on each monomer (PubMed:15823027). 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 (PubMed:19910580). Could assist ATAD3A cytoplasmic processing, preventing aggregation and favoring mitochondrial localization (By similarity). May mediate calcium- dependent regulation on many physiological processes by interacting with other proteins, such as TPR-containing proteins, and modulating their activity (By similarity).

Cellular Location
Cytoplasm {ECO:0000250|UniProtKB:P04271}. Nucleus {ECO:0000250|UniProtKB:P04271}. Secreted {ECO:0000250|UniProtKB:P50114}. Note=Secretion into the medium is promoted by interaction with isoform CLSTN3beta of CLSTN3 {ECO:0000250|UniProtKB:P50114}

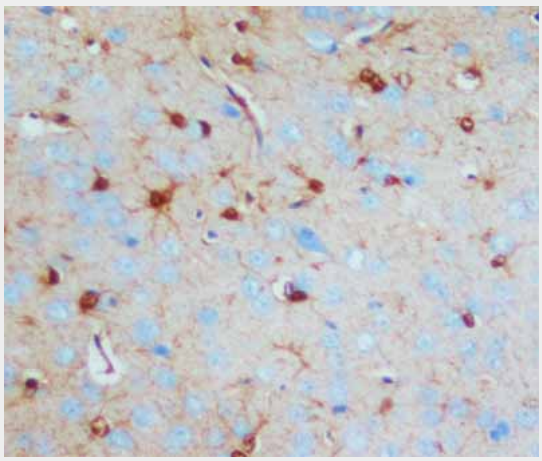
Tissue Location
Although predominant among the water-soluble brain proteins, S100 is also found in a variety of other tissues

Anti-S-100(Beta-subunit) Antibody (Monoclonal, SH-B1) - 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

Anti-S-100(Beta-subunit) Antibody (Monoclonal, SH-B1) - Images



Anti-S-100(beta-subunit) antibody (monoclonal), ABO10472, IHC(P)IHC(P): Rat Brain Tissue Lysate

Anti-S-100(Beta-subunit) Antibody (Monoclonal, SH-B1) - Background

S100 protein is a 21,000-Da component first isolated from brain by Moore(1965). Immunocytochemical studies demonstrated that S100 protein is produced by a wide variety of normal and neoplastic cells of mesodermal, neuroectodermal, and epithelial origin(Herrera et al., 1988). The S100 molecule is a dimer; thus there are 3 forms of S100: alpha-alpha, known as S-100a(0); alpha-beta, known as S-100a; and beta-beta, known as S-100b. S100 genes are clustered on human chromosome 1q21. S-100 protein expression by primary and metastatic adenocarcinomas.