

Datasheet for ABIN401026

anti-S100A1 antibody

3 Images

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Overview

Quantity:	0.5 mg
Target:	S100A1
Reactivity:	Cow
Host:	Rabbit
Clonality:	Polyclonal
Application:	Western Blotting (WB), Immunohistochemistry (Paraffin-embedded Sections) (IHC (p)), Enzyme Immunoassay (EIA)

Product Details

Immunogen:	Prepared from whole rabbit serum produced by repeated immunizations with fulllength bovine S100 protein (mixture of alphaalpha homodimers and alphabeta heterodimers)
Isotype:	IgG
Specificity:	This antibody is directed against S100 protein.
Cross-Reactivity (Details):	Species reactivity (expected):Primate, Mouse, Rat, Canine. Species reactivity (tested):Bovine.
Purification:	Affinity chromatography on Protein A

Target Details

Target:	S100A1
Alternative Name:	S100A1 (S100A1 Products)
Background:	S-100 protein derived from brain tissue is an acidic calcium-binding protein with molecular

Target Details

weight of about 21 kDa. In human brain tissue S-100 protein is mainly presented as two isoforms - betabeta homodimer (S-100b) and alphabeta heterodimer (S-100a). Because of its predominant location in astroglial cells S-100 protein can be used as a sensitive and reliable marker for central nervous system injury. Structural damage of glial cells causes leakage of S-100 protein into the extracellular matrix and into cerebrospinal fluid, further releasing into the bloodstream. Measurements of S-100 protein in patient serum samples are useful in monitoring of traumatic brain injury, ischemic brain damage after circulatory arrests, and in diagnosis and prognosis of clinical outcome in acute stroke. Although predominant among the water-soluble brain proteins, S-100 is also found in a variety of other tissues. S-100 is an intracellular protein that weakly binds calcium. It binds zinc very tightly, however, and this appears to increase the affinity of the protein for calcium. 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. Synonyms: S-100 protein alpha chain, S-100 protein subunit alpha, S100 alpha, S100 calcium-binding protein A1, S100-A1, S100A

Gene ID: 528735

NCBI Accession: [NP_001092512](#)

UniProt: [P02639](#)

Pathways: [Regulation of Muscle Cell Differentiation](#), [Toll-Like Receptors Cascades](#), [S100 Proteins](#)

Application Details

Application Notes: ELISA: 1/5,000 - 1/25,000. Western Blot: 1/500 - 1/3,000. Immunohistochemistry: 1/200 - 1/2,000.
Other applications not tested.
Optimal dilutions are dependent on conditions and should be determined by the user.

Restrictions: For Research Use only

Handling

Reconstitution: Restore with 0.1 mL of deionized water (or equivalent).

Concentration: 5.0 mg/mL (by UV absorbance at 280 nm)

Buffer: 0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2 containing 0.01 % (w/v) Sodium Azide

Handling

Preservative:	Sodium azide
Precaution of Use:	This product contains sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Handling Advice:	Avoid repeated freezing and thawing.
Storage:	4 °C/-20 °C
Storage Comment:	Prior to reconstitution store at 2-8 °C. Following reconstitution store the antibody undiluted at 2-8 °C for one month or (in aliquots) at -20 °C for longer.

Validation report #101355 for Immunohistochemistry (IHC)

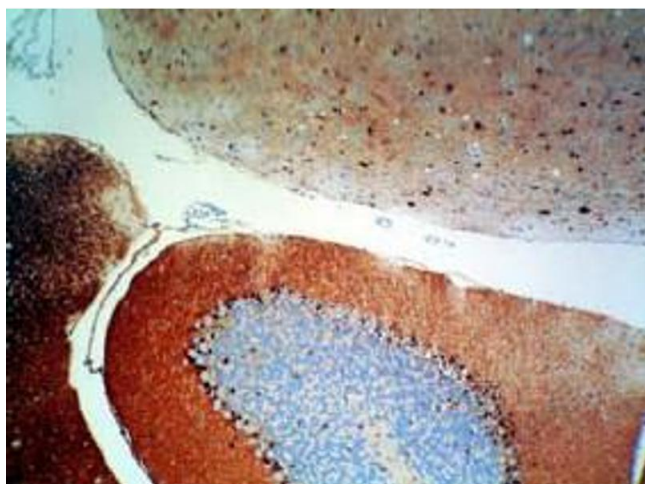


Image 1.

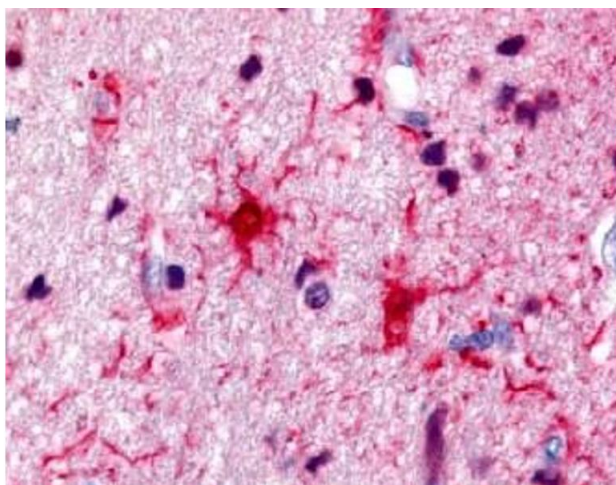


Image 2.



Image 3.