Product datasheet

Anti-S100 beta antibody - Astrocyte Marker ab41548

Overview

Product name
Anti-S100 beta antibody - Astrocyte Marker

Description
Rabbit polyclonal to S100 beta - Astrocyte Marker

Host species
Rabbit

Tested applications
Suitable for: WB, IHC-FoFr, IHC-P

Unsuitable for: ICC/IF

Species reactivity
Reacts with: Mouse, Rat, Pig

Predicted to work with: Rabbit, Cow, Human, Chinese hamster  ▲

Immunogen
Synthetic peptide corresponding to Rat S100 beta aa 50 to the C-terminus (C terminal) conjugated to keyhole limpet haemocyanin.
(Peptide available as ab41547)

Positive control
This antibody gave a positive signal in the following tissue lysates; Brain (Rat), Spinal Cord (Mouse), Spinal Cord (Rat)

Properties

Form
Liquid

Storage instructions
Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.

Storage buffer
pH: 7.40
Preservative: 0.02% Sodium azide
Constituent: PBS

Batches of this product that have a concentration < 1mg/ml may have BSA added as a stabilising agent. If you would like information about the formulation of a specific lot, please contact our scientific support team who will be happy to help.

Purity
Immunogen affinity purified

Clonality
Polyclonal

Isotype
IgG

Applications
Function
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.

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

Sequence similarities
Belongs to the S-101 family.
Contains 2 EF-hand domains.

Cellular localization
Cytoplasm. Nucleus.

Images
ab41548 staining S100 beta in mouse brain tissue sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with formaldehyde and blocked with 1% BSA for 10 minutes; antigen retrieval was by heat mediation in citric acid. Samples were incubated with primary antibody (1/10000 in TBS/BSA/azide) for 2 hours at 21°C. A Biotin-conjugated goat anti-rabbit IgG polyclonal (1/250) was used as the secondary antibody.

At this dilution factor, there is very good delineation of astrocyte processes.
Western blot - Anti-S100 beta antibody - Astrocyte Marker (ab41548)

All lanes: Anti-S100 beta antibody - Astrocyte Marker (ab41548) at 1 µg/ml

Lane 1: Brain (Mouse) Tissue Lysate
Lane 2: Brain (Rat) Tissue Lysate
Lane 3: Spinal Cord (Mouse) Tissue Lysate
Lane 4: Spinal Cord (Rat) Tissue Lysate

Lysates/proteins at 10 µg per lane.

Secondary

All lanes: Goat polyclonal to Rabbit IgG - H&L - Pre-Adsorbed (HRP) at 1/3000 dilution

Performed under reducing conditions.

Predicted band size: 11 kDa
Observed band size: 9 kDa

why is the actual band size different from the predicted?

Additional bands at: 52 kDa. We are unsure as to the identity of these extra bands.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-S100 beta antibody - Astrocyte Marker (ab41548)

Image courtesy of Carl Hobbs, King College London, U.K.

ab41548 staining S100 beta in Zebrafish body, showing T/S of spinal cord region by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with formaldehyde and blocked with 1% BSA for 10 minutes; antigen retrieval was by heat mediation in citric acid. Samples were incubated with primary antibody (1/10000 in TBS/BSA/azide) for 2 hours at 21°C. A Biotin-conjugated goat anti-rabbit IgG polyclonal (1/250) was used as the secondary antibody.
ab41548 staining S100 beta in rat brain tissue section by Immunohistochemistry (PFA perfusion fixed frozen sections). Tissue from 4% PFA perfused animals underwent overnight fixation in 4% paraformaldehyde, cryoprotected in 30% sucrose and cut using cryostat. The primary antibody was diluted, 1/3000 (PBS + 0.3% Triton X100) and incubated with sample for 18 hours at 20°C. An Alexa Fluor®488 conjugated goat polyclonal to rabbit IgG at 1/1000 dilution, was used as secondary.

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