

## Product datasheet

# Anti-S100 antibody [4C4.9] ab4066

★★★★☆ 10 Abreviews 40 References 3 Images

### Overview

<b>Product name</b>	Anti-S100 antibody [4C4.9]
<b>Description</b>	Mouse monoclonal [4C4.9] to S100
<b>Host species</b>	Mouse
<b>Tested applications</b>	<b>Suitable for:</b> ICC/IF, IHC-P, IHC-Fr, WB
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Rat, Cow, Human
<b>Immunogen</b>	Full length protein. Purified bovine brain S-100 protein
<b>Positive control</b>	Melanoma.

### Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Store at -20°C or -80°C. Avoid freeze / thaw cycle.
<b>Storage buffer</b>	Preservative: 0.05% Sodium azide Constituents: Ascites, 1% BSA
<b>Purity</b>	Protein G purified
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	4C4.9
<b>Isotype</b>	IgG2a

### Applications

Our [Abpromise guarantee](#) covers the use of **ab4066** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

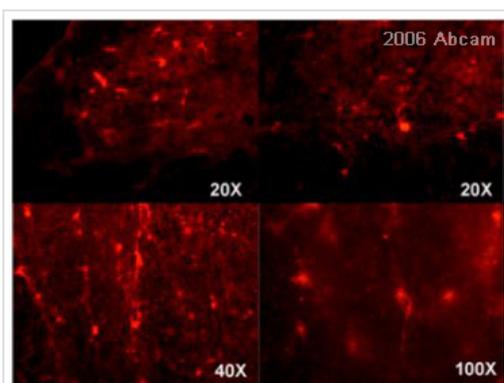
Application	Abreviews	Notes
ICC/IF	★★★★☆	Use at an assay dependent concentration. PubMed: 23624931
IHC-P	★★★★☆	1/10 - 1/50. Antigen retrieval is not essential but may optimise staining.

Application	Abreviews	Notes
IHC-Fr	★★★★☆	1/200 - 1/500.
WB	★★★★☆	Use at an assay dependent concentration.

## Target

<b>Function</b>	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.
<b>Tissue specificity</b>	Highly prevalent in heart. Also found in lesser quantities in skeletal muscle and brain.
<b>Sequence similarities</b>	Belongs to the S-100 family. Contains 2 EF-hand domains.
<b>Cellular localization</b>	Cytoplasm.

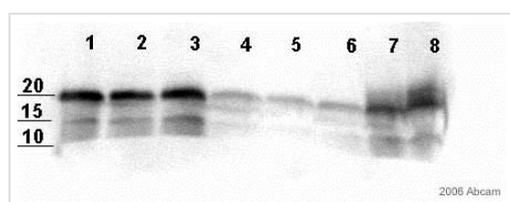
## Images



Immunohistochemistry (Frozen sections) - Anti-S100 antibody [4C4.9] (ab4066)

This image is courtesy of an Abreview submitted by Nancy Nuttle-McMenemy

ab4066 at a 1/200 dilution staining rat spinal cord tissue sections by Immunohistochemistry (Frozen sections). Rats were transcardially perfused with 4% PFA, the tissue was post fixed 1 hour in 4% PFA then 30% sucrose for three days. 20um sections were cut with cryostat. The antibody was incubated with the tissue sections for 18 hours and then bound antibody was detected using an Alexa Fluor® 555 conjugated goat polyclonal antibody.



Western blot - Anti-S100 antibody [4C4.9] (ab4066)

This image is courtesy of an Abreview submitted by Ms Nancy Nuttle-McMenemy

**All lanes :** Anti-S100 antibody [4C4.9] (ab4066) at 1/200 dilution

**Lanes 1-3 :** 40ug Rat spinal cord homogenate

**Lanes 4-6 :** 40 ug Mouse spinal cord homogenate

**Lanes 7-8 :** 40 ug Rat brain homogenate

### Secondary

**All lanes :** HRP conjugated goat anti-mouse

Developed using the ECL technique.

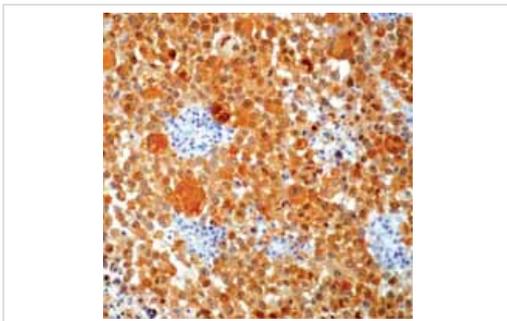
Performed under reducing conditions.

**Observed band size:** 15,18,21 kDa

[why is the actual band size different from the predicted?](#)

**Exposure time:** 2 minutes

The extra band at 18kDa may be a result of the protein's thermolabile properties. The band at 21 kDa maybe a dimer of s100a and s100b and the 10/15 kDa may be the subunits. However, there are also references to suggest these may be immunoreactive proteins with differing molecular weights depending on proliferative or differentiated state of the cell (Anat Embryol (Berl). 1997 Nov;196(5):403-16).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-S100 antibody [4C4.9] (ab4066)

ab4066 staining human melanoma by IHC-P.

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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