abcam

Product datasheet

Anti-S100 beta antibody [EP1576Y] - BSA and Azide free ab215989

リコンビナント RabMAb

1 Abreviews 画像数 18

製品の概要

製品名	Anti-S100 beta antibody [EP1576Y] - BSA and Azide free
製品の詳細	Rabbit monoclonal [EP1576Y] to S100 beta - BSA and Azide free
由来種	Rabbit
アプリケーション	**適用あり:** WB, IP, IHC-P, IHC-Fr, ICC/IF
種交差性	**交差種:** Mouse, Rat, Human **交差が予測される動物種:** Goat, Zebrafish, Macaque monkey
免疫原	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
ポジティブ・コントロール	IHC-P: Human, mouse and rat cerebral cortex. Human spiral ganglion and melanoma tissue; Normal WT and laser-treated mouse retina; Native and acellular peripheral nerve sections; Embryonic mouse brain tissue, brain tissue; WB: B16F0 and A-375 cell lysates, mouse spinal cord, rat brain; ICC/IF: A-375 cells. IP: Human fetal brain; IHC-Fr: Mouse and rat cerebrum, Hu cerebral cortex
特記事項	ab215989 is the carrier-free version of **ab52642**. Our **carrier-free** antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. The carrier-free buffer and high concentration allow for increased conjugation efficiency. This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications. Use our **conjugation kits** for antibody conjugates that are ready-to-use in as little as 20 minutes with <1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold. This product is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar® is a trademark of Fluidigm Canada Inc. This product is a recombinant monoclonal antibody, which offers several advantages including: - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply

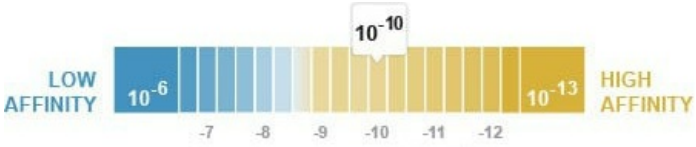
- Animal-free production

For more information **see here**.

Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**.

製品の特性

製品の状態	Liquid
保存方法	Shipped at 4°C. Store at +4°C. Do Not Freeze.
解離定数（K_D 値）	K_D = 5.50 x 10 $^{-10}$ M



Learn more about K_D

バッファー	pH: 7.20 Constituent: PBS
キャリア・フリー	はい
精製度	Protein A purified
ポリ/モノ	モノクローナル
クローン名	EP1576Y
アイソタイプ	IgG

アプリケーション

The Abpromise guarantee **Abpromise保証は、** 次のテスト済みアプリケーションにおけるab215989の使用に適用されます

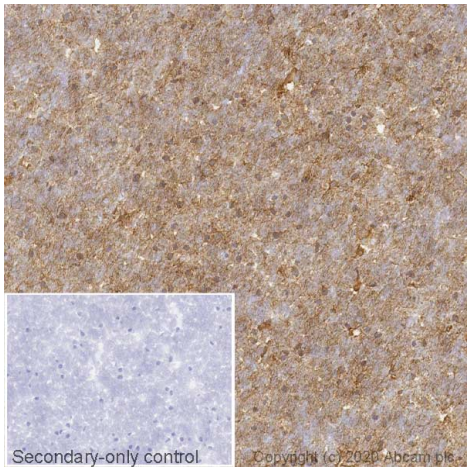
アプリケーションノートには、推奨の開始希釈率がありますが、適切な希釈率につきましてはご検討ください。

アプリケーション	Abreviews	特記事項
WB		Use at an assay dependent concentration. Detects a band of approximately 11 kDa (predicted molecular weight: 11 kDa).
IP		Use at an assay dependent concentration.
IHC-P		Use at an assay dependent concentration. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol. See **IHC antigen retrieval protocols**.
IHC-Fr	★★★★☆ (1)	Use at an assay dependent concentration. Heat mediated antigen retrieval using sodium citrate buffer (10mM citrate pH 6.0 + 0.05% Tween-20).
ICC/IF		Use at an assay dependent concentration.

ターゲット情報

機能	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.
組織特異性	Although predominant among the water-soluble brain proteins, S100 is also found in a variety of other tissues.
配列類似性	Belongs to the S-101 family. Contains 2 EF-hand domains.
細胞内局在	Cytoplasm. Nucleus.

画像

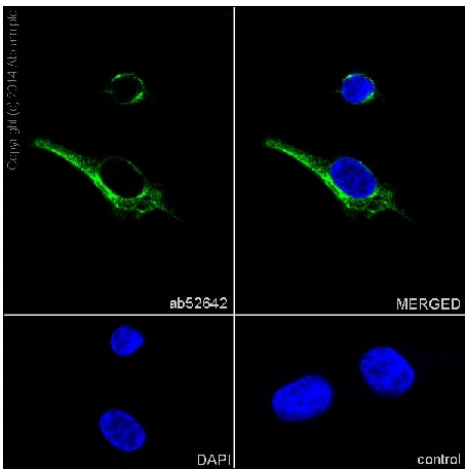


Immunohistochemistry (Frozen sections) - Anti-S100 beta antibody [EP1576Y] - BSA and Azide free (ab215989)

This data was developed using the same antibody clone in a different buffer formulation (**ab52642**).

IHC image of S100 beta staining in a section of frozen normal human cerebral cortex performed on a Leica BOND™ system using the standard protocol. The section was fixed in 10% paraformaldehyde (10 min) prior to staining. The section was incubated with **ab16659**, 1/5000 dilution, for 15 mins at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX. The inset secondary-only control image is taken from an identical assay without primary antibody.

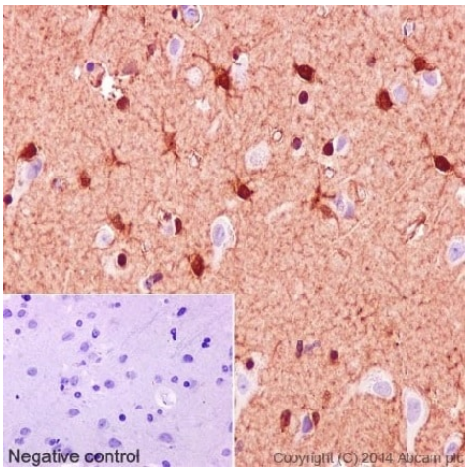
For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.



Immunocytochemistry/ Immunofluorescence - Anti-S100 beta antibody [EP1576Y] - BSA and Azide free (ab215989)

Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 A-375 (human malignant melanoma cell line) cells labeling S100 beta with purified **ab52642** at 1/100 dilution, followed by Goat anti rabbit IgG (Alexa Fluor® 488) **ab150077** secondary antibody at 1/500 dilution (green). The nuclear counter stain is DAPI (blue). The negative control is as follows;
ab52642 at 1/100 dilution followed by **ab150120** (AlexaFluor®594 Goat anti-Mouse secondary) at 1/500 dilution.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab52642**).

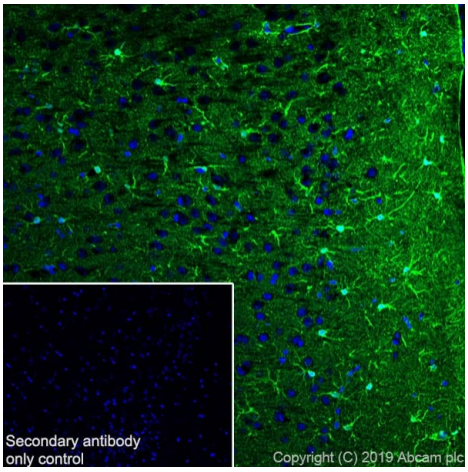


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-S100 beta antibody [EP1576Y] - BSA and Azide free (ab215989)

Immunohistochemical analysis of paraffin embedded human cerebral cortex tissue labeling S100 beta with purified **ab52642** at 1/1000 dilution. Secondary antibody was Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/500 dilution. Counter stain: Hematoxylin.

Negative control: Using PBS instead of primary antibody.

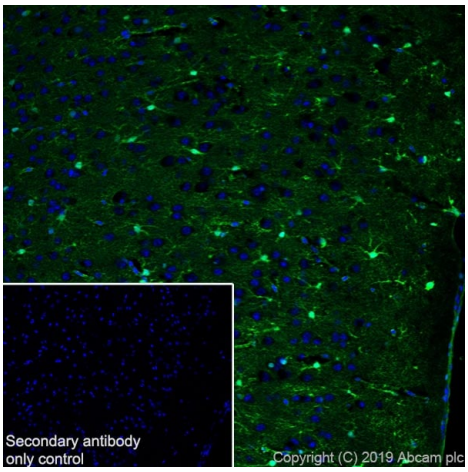
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab52642**).



Immunohistochemistry (Frozen sections) - Anti-S100 beta antibody [EP1576Y] - BSA and Azide free (ab215989)

Immunohistochemistry (Frozen sections) analysis of rat cerebrum tissue sections labeling S100 beta with Purified **ab52642** at 1/100 (9.9 µg/ml).Heat mediated antigen retrieval using sodium citrate buffer (10mM citrate pH 6.0 + 0.05% Tween-20). Goat anti rabbit IgG (Alexa Fluor® 488, **ab150077**) was used as the secondary antibody. Negative control: PBS instead of the primary antibody. DAPI was used as a counterstain.

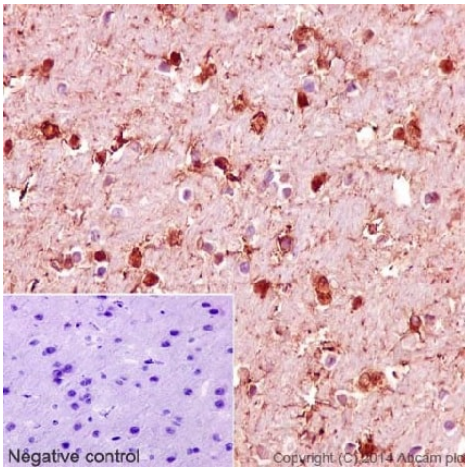
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab52642**).



Immunohistochemistry (Frozen sections) - Anti-S100 beta antibody [EP1576Y] - BSA and Azide free (ab215989)

Immunohistochemistry (Frozen sections) analysis of mouse cerebrum tissue sections labeling S100 beta with Purified **ab52642** at 1/100 (9.9 µg/ml).Heat mediated antigen retrieval using sodium citrate buffer (10mM citrate pH 6.0 + 0.05% Tween-20). Goat anti rabbit IgG (Alexa Fluor® 488, **ab150077**) was used as the secondary antibody. Negative control: PBS instead of the primary antibody. DAPI was used as a counterstain.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab52642**).

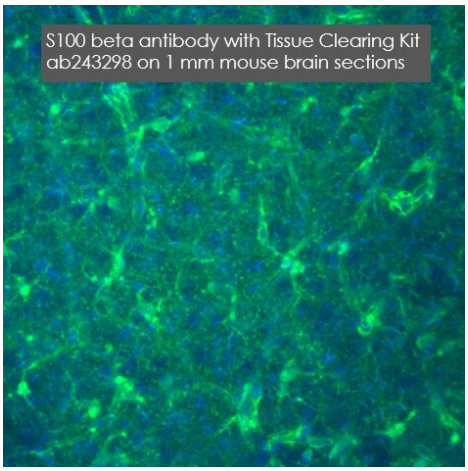


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-S100 beta antibody [EP1576Y] - BSA and Azide free (ab215989)

Immunohistochemical analysis of paraffin embedded rat cerebral cortex tissue labeling S100 beta with purified **ab52642** at 1/1000 dilution. Secondary antibody was Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/500 dilution. Counter stain: Hematoxylin.

Negative control: Using PBS instead of primary antibody.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab52642**).



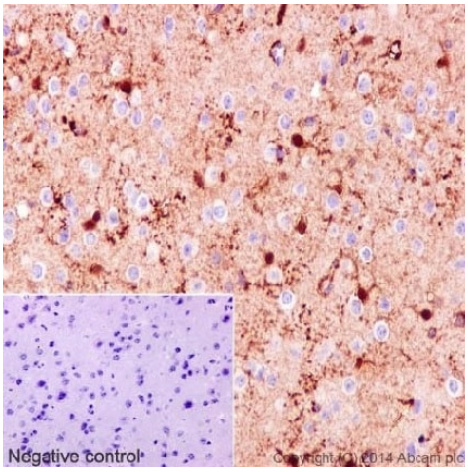
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-S100 beta antibody [EP1576Y] - BSA and Azide free (ab215989)

This data was developed using **ab52642**, the same antibody clone in a different buffer formulation.

S100 beta antibody **ab52642** was used with Tissue Clearing Kit **ab243298** to penetrate, stain and clear a 1 mm coronal section of mouse brain. Blue: DAPI, Green: S100 beta.

Learn more about **tissue clearing kits, reagents, and protocols** designed to make it easier to stain thick tissue sections and get more data from each valuable tissue section.

To use this antibody with tissue clearing, use Tissue Clearing Kit **ab243298**. For 1 mm brain sections, we recommend a starting dilution of 1:200, and also using Goat Anti-Rabbit IgG H&L AlexaFluor488 (**ab150077**) at a dilution of 1:400.

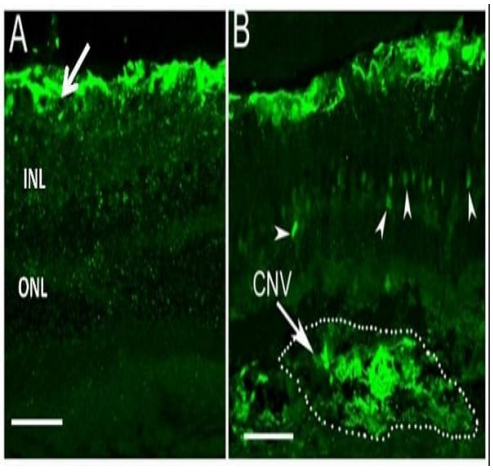


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-S100 beta antibody [EP1576Y] - BSA and Azide free (ab215989)

Immunohistochemical analysis of paraffin embedded mouse cerebral cortex tissue labeling S100 beta with purified **ab52642** at 1/1000 dilution. Secondary antibody was Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/500 dilution. Counter stain: Hematoxylin.

Negative control: Using PBS instead of primary antibody.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab52642**).



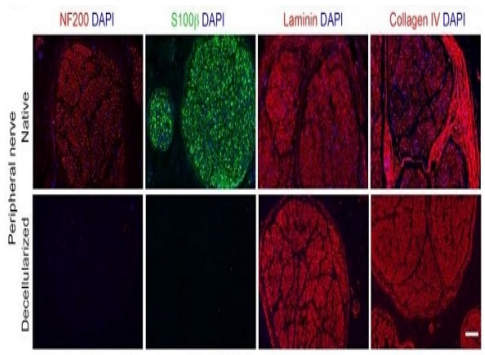
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-S100 beta antibody [EP1576Y] - BSA and Azide free (ab215989)

Image from Chen M et al. PLoS One. 2014;9(2):e89548. Fig 3.; doi: 10.1371/journal.pone.0089548.

S100 beta is present in CNV lesions.

A) S100 beta expression in a normal WT mouse retina. Strong immunoreactivity is present in the astrocytes (arrow). The position of the inner nuclear layer (INL) and outer nuclear layer (ONL) are indicted. Scale bar is 50 µm B) S100 beta expression in WT mouse retinal at day 7 post-laser treatment. S100B was detected in the outer plexiform layer (arrowheads). Strong S100 beta expression was detected at the site of CNV. Scale bar is 50 µm

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab52642**).

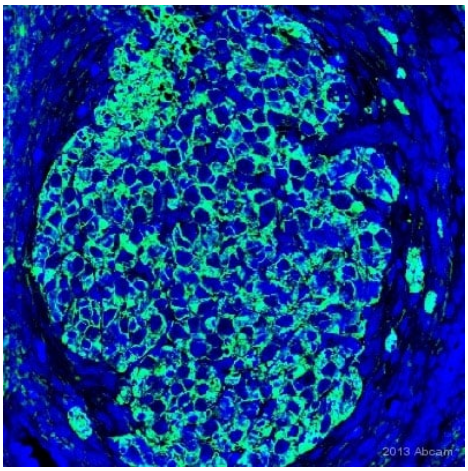


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-S100 beta antibody [EP1576Y] - BSA and Azide free (ab215989)

Image from Gerli MFM et al. PLoS One. 2018;13(1):e0191497 Fig 3.; doi: 10.1371/journal.pone.0191497.

Immunofluorescent imaging of human native and acellular peripheral nerve sections stained for the axon protein Neurofilaments (NF200), the Schwann's cell marker S100β (**ab52642**) and for the extracellular matrix proteins Laminin and Collagen IV. Sections were counterstained with DAPI to confirm the removal of the cell nuclei upon decellularization (scale bar: 100 µm).

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab52642**).

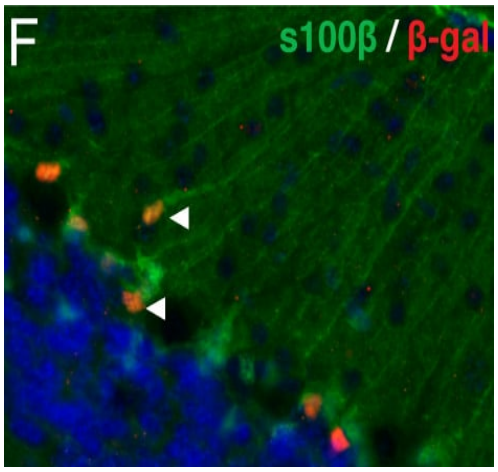


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-S100 beta antibody [EP1576Y] - BSA and Azide free (ab215989)

This image is courtesy of an Abreview submitted by Heiko Locher.

Unpurified **ab52642** staining S100 beta in human spiral ganglion tissue sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with paraformaldehyde and blocked with 1% BSA for 30 minutes at room temperature; antigen retrieval was by heat mediation in citrate buffer, pH 6.0. Samples were incubated with primary antibody (1/200 in PBS-T + 1% BSA) for 12 hours. An Alexa Fluor® 488-conjugated Donkey anti-rabbit IgG polyclonal (1/500) was used as the secondary antibody.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab52642**).

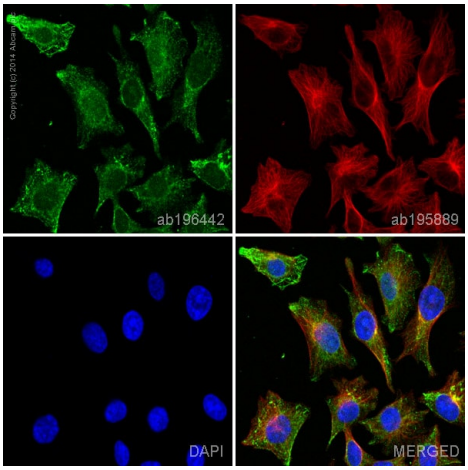


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-S100 beta antibody [EP1576Y] - BSA and Azide free (ab215989)

Image from Selvadurai HJ & Mason JO. PLoS One. 2011;6(8):e23012. Epub 2011 Aug 8. Fig 5.; doi:10.1371/journal.pone.0023012; August 8 2011 PLoS ONE 6(8): e23012.

Immunohistochemical analysis of embryonic mouse brain tissue, staining S100 beta with unpurified **ab52642**.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab52642**).



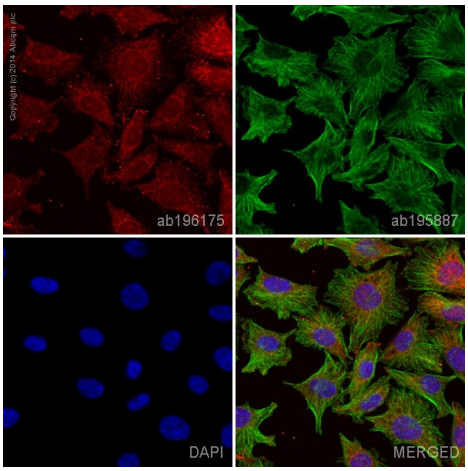
Immunocytochemistry/ Immunofluorescence - Anti-S100 beta antibody [EP1576Y] - BSA and Azide free (ab215989)

Clone EP1576Y (ab215989) has been successfully conjugated by Abcam. This image was generated using Anti-S100 beta antibody [EP1576Y] - Astrocyte Marker (Alexa Fluor® 488). Please refer to **ab196442** for protocol details.

ab196442 staining S100 beta in A375 cells. The cells were fixed with 100% methanol (5 min), permeabilized with 0.1% Triton X-100 for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1% PBS-Tween for 1h. The cells were then incubated overnight at +4°C with **ab196442** at 1/100 dilution (shown in green) and **ab195889**, Mouse monoclonal to alpha Tubulin (Alexa Fluor® 594), at 1/250 dilution (shown in red). Nuclear DNA was labelled with DAPI (shown in blue).

Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

This product also gave a positive signal under the same testing conditions in A375 cells fixed with 4% formaldehyde (10 min).



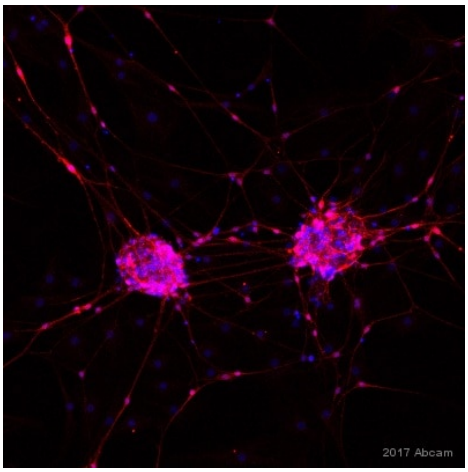
Immunocytochemistry/ Immunofluorescence - Anti-S100 beta antibody [EP1576Y] - BSA and Azide free (ab215989)

Clone EP1576Y (ab215989) has been successfully conjugated by Abcam. This image was generated using Anti-S100 beta antibody [EP1576Y] - Astrocyte Marker (Alexa Fluor® 647). Please refer to **ab196175** for protocol details.

ab196175 staining S100 beta in A375 cells. The cells were fixed with 100% methanol (5 min), permeabilized with 0.1% Triton X-100 for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1% PBS-Tween for 1h. The cells were then incubated overnight at +4°C with **ab196175** at 1/50 dilution (shown in red) and **ab195887**, Mouse monoclonal to alpha Tubulin (Alexa Fluor® 488), at 1/250 dilution (shown in green). Nuclear DNA was labelled with DAPI (shown in blue).

Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

This product also gave a positive signal under the same testing conditions in A375 cells fixed with 4% formaldehyde (10 min).

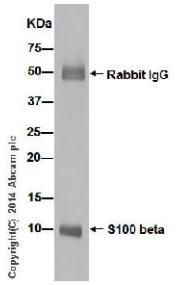


Immunocytochemistry/ Immunofluorescence - Anti-S100 beta antibody [EP1576Y] - BSA and Azide free (ab215989)

This image is courtesy of an anonymous Abreview.

Immunocytochemistry/ Immunofluorescence analysis of mouse colon-derived neurospheres labeling S100 beta with **ab52642** at 1/400 dilution. The cells were fixed with paraformaldehyde and permeabilized with 0.1% Triton X-100. Next the cells were blocked with 5 % serum for 1 hour at 25°C, followed by incubation with anti-S100 beta antibody [EP1576Y] (**ab52642**) in 1% BSA for 18 hours at 4°C. A polyclonal goat anti-rabbit IgG Alexa Fluor® 594 was used at 1/200 dilution.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab52642**).

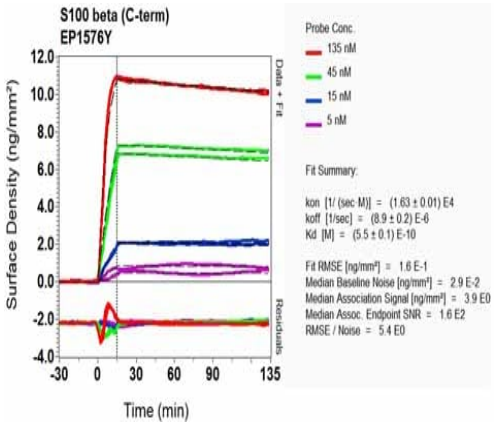


Immunoprecipitation - Anti-S100 beta antibody [EP1576Y] - BSA and Azide free (ab215989)

S100 beta was immunoprecipitated from human fetal brain with purified **ab52642** at 1/50 dilution. Western blot was performed from the immunoprecipitate using **ab52642** and Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated was used as secondary antibody at 1/1000 dilution.

Blocking and dilution buffer and concentration: 5% NFDM/TBST.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab52642**).



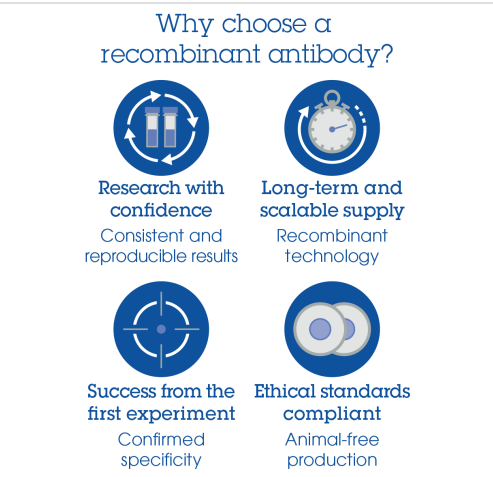
OI-RD Scanning - Anti-S100 beta antibody [EP1576Y] - BSA and Azide free (ab215989)

Equilibrium disassociation constant (K_D)

Learn more about K_D

Click here to learn more about K_D

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab52642**).



Anti-S100 beta antibody [EP1576Y] - BSA and Azide free (ab215989)

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