abcam

Product datasheet

Anti-S100 alpha antibody [EPR19013] ab183979

Recombinant RabMAb

1 References 10 Images

Overview

Product name	Anti-S100 alpha antibody [EPR19013]
Description	Rabbit monoclonal [EPR19013] to S100 alpha
Host species	Rabbit
Tested applications	**Suitable for:** WB, IP, Flow Cyt, IHC-P, IHC-Fr
Species reactivity	**Reacts with:** Mouse, Human
Immunogen	Recombinant full length protein within Mouse S100 alpha aa 1 to the C-terminus. The exact sequence is proprietary. Database link: P56565
Positive control	WB: Human skeletal muscle lysate; Mouse cerebral cortex, liver, heart and muscle lysates; RAW 264.7 whole cell lysate. IHC-P: Human cerebrum, tonsil and kidney tissues. IHC-Fr: Mouse brain, kidney and spleen tissues. IP: RAW 264.7 whole cell lysate.
General notes	Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMab® patents. This product is a recombinant rabbit monoclonal antibody.

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 long term. Avoid freeze / thaw cycle.
Storage buffer	Preservative: 0.01% Sodium azide Constituents: 59% PBS, 40% Glycerol, 0.05% BSA
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR19013
Isotype	IgG

Applications

Our Abpromise guarantee covers the use of **ab183979** in the following tested applications.

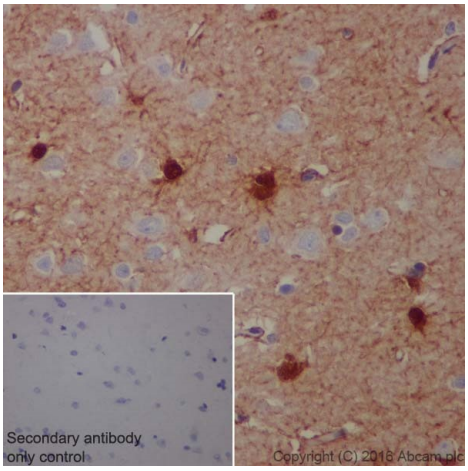
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		1/1000. Detects a band of approximately 11 kDa (predicted molecular weight: 11 kDa).
IP		1/40.
Flow Cyt		1/60. ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.
IHC-P		1/1000. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.
IHC-Fr		1/500. Antigen retrieval: Heated citrate solution (10mM citrate pH 6.0 + 0.05% Tween-20). Weak positive staining was observed in mouse with minimal background.

Target

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

Images

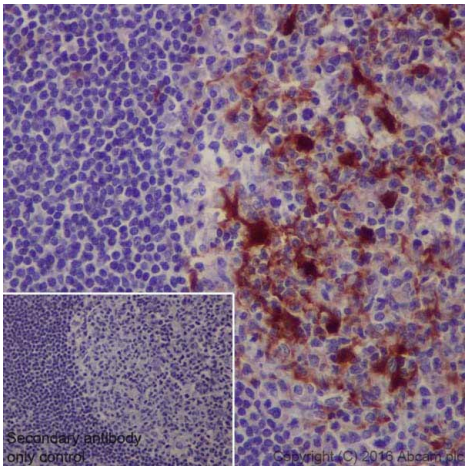


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-S100 alpha antibody [EPR19013] (ab183979)

Immunohistochemical analysis of paraffin-embedded Human cerebrum tissue labeling S100 with ab183979 at 1/1000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution. Positive staining on glial cells and negative on neuron cells of Human cerebrum was observed. Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is ab97051 at 1/500 dilution.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

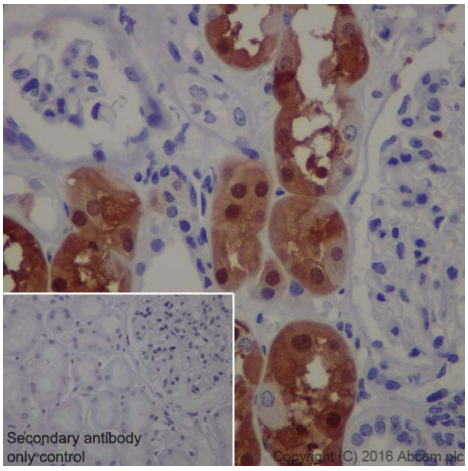


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-S100 alpha antibody [EPR19013] (ab183979)

Immunohistochemical analysis of paraffin-embedded Human tonsil tissue labeling S100 with ab183979 at 1/1000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution. Positive on germinal center of Human tonsil. Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is ab97051 at 1/500 dilution.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

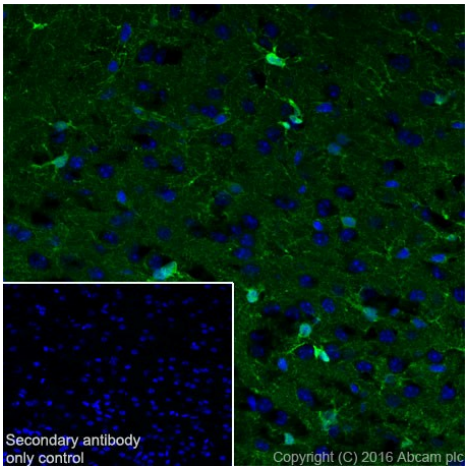


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-S100 alpha antibody [EPR19013] (ab183979)

Immunohistochemical analysis of paraffin-embedded Human kidney tissue labeling S100 with ab183979 at 1/1000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution. Part of kidney tubules were strongly staining. Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is ab97051 at 1/500 dilution.

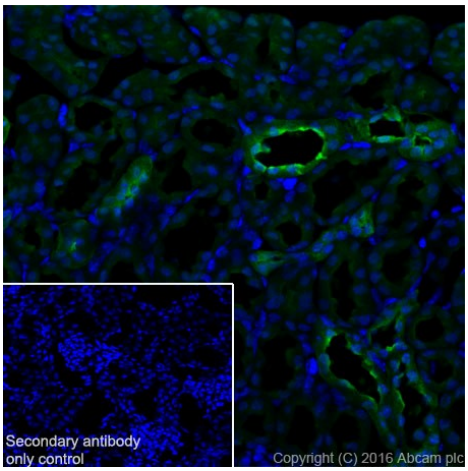
Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Immunohistochemistry (Frozen sections) - Anti-S100 alpha antibody [EPR19013] (ab183979)

Immunohistochemical analysis of 4% paraformaldehyde-fixed, 0.2% Triton X-100 permeabilized frozen Mouse brain tissue labeling S100 with ab183979 at 1/500 dilution, followed by Goat Anti-Rabbit IgG (Alexa Fluor® 488) (ab150077) secondary antibody at 1/1000 dilution (green). The result showed positive staining on glial cells of mouse cortex. The nuclear counterstain is DAPI (blue).

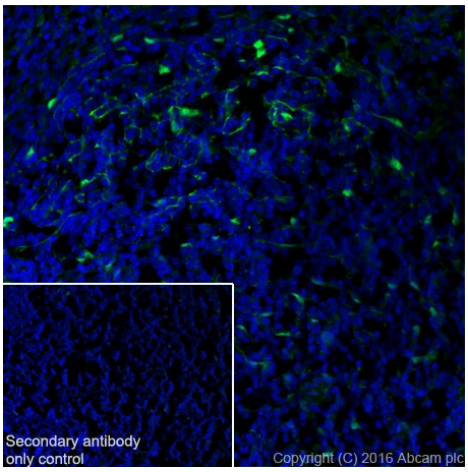
Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is ab150077 secondary antibody at 1/1000 dilution.



Immunohistochemistry (Frozen sections) - Anti-S100 alpha antibody [EPR19013] (ab183979)

Immunohistochemical analysis of 4% paraformaldehyde-fixed, 0.2% Triton X-100 permeabilized frozen Mouse kidney tissue labeling S100 with ab183979 at 1/500 dilution, followed by Goat Anti-Rabbit IgG (Alexa Fluor® 488) (ab150077) secondary antibody at 1/1000 dilution (green). The result showed positive staining on mouse kidney. The nuclear counterstain is DAPI (blue).

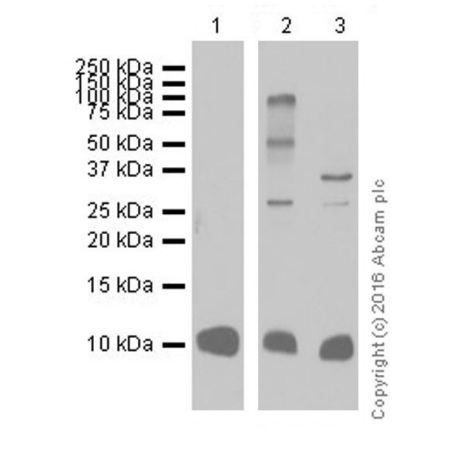
Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is ab150077 secondary antibody at 1/1000 dilution.



Immunohistochemistry (Frozen sections) - Anti-S100 alpha antibody [EPR19013] (ab183979)

Immunohistochemical analysis of 4% paraformaldehyde-fixed, 0.2% Triton X-100 permeabilized frozen Mouse spleen tissue labeling S100 with ab183979 at 1/500 dilution, followed by Goat Anti-Rabbit IgG (Alexa Fluor® 488) (ab150077) secondary antibody at 1/1000 dilution (green). The result showed positive staining on mouse spleen. The nuclear counterstain is DAPI (blue).

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is ab150077 secondary antibody at 1/1000 dilution.



Western blot - Anti-S100 alpha antibody [EPR19013] (ab183979)

All lanes : Anti-S100 alpha antibody [EPR19013] (ab183979) at 1/2000 dilution

Lane 1 : Human skeletal muscle lysate
Lane 2 : Mouse cerebral cortex lysate
Lane 3 : Mouse liver lysate

Lysates/proteins at 20 µg per lane.

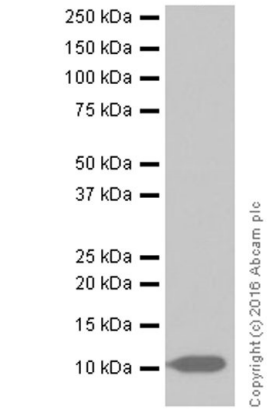
Secondary
All lanes : Goat Anti-Rabbit IgG Peroxidase Conjugate, specific to the non-reduced form of IgG at 1/10000 dilution

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

Exposure time: 3 minutes

Blocking/Dilution buffer: 5% NFDM/TBST.

Note that high molecular weight bands were detected in mouse tissue lysates.



Western blot - Anti-S100 alpha antibody [EPR19013] (ab183979)

Anti-S100 alpha antibody [EPR19013] (ab183979) at 1/2000 dilution + RAW 264.7 (Mouse macrophage cell line transformed with Abelson murine leukemia virus) whole cell lysate at 10 µg

Secondary

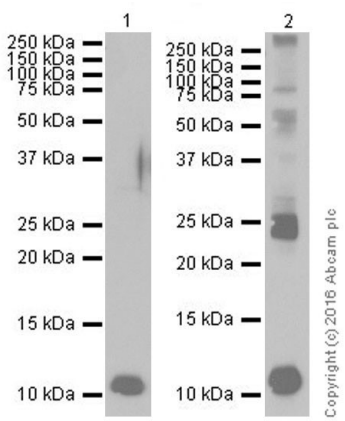
Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

Predicted band size: 11 kDa

Observed band size: 11 kDa

Exposure time: 3 minutes

Blocking/Dilution buffer: 5% NFDM/TBST.



Western blot - Anti-S100 alpha antibody [EPR19013] (ab183979)

All lanes : Anti-S100 alpha antibody [EPR19013] (ab183979) at 1/1000 dilution

Lane 1 : Mouse muscle lysate

Lane 2 : Mouse heart lysate

Lysates/proteins at 10 µg per lane.

Secondary

All lanes : Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

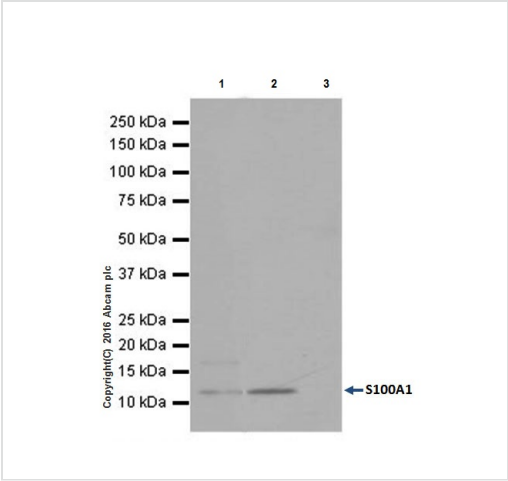
Predicted band size: 11 kDa

Observed band size: 11 kDa

Exposure time: 3 minutes

Blocking/Dilution buffer: 5% NFDM/TBST.

Note that high molecular weight bands were detected in mouse tissue lysates.



Immunoprecipitation - Anti-S100 alpha antibody [EPR19013] (ab183979)

S100 was immunoprecipitated from RAW 264.7 (Mouse macrophage cell line transformed with Abelson murine leukemia virus) whole cell lysate with ab183979 at 1/40 dilution. Western blot was performed from the immunoprecipitate using ab183979 at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP) (ab131366), was used for detection at 1/10000 dilution.

Lane 1: RAW 264.7 whole cell lysate, 10µg (Input).

Lane 2: ab183979 IP in RAW 264.7 whole cell lysate.

Lane 3: Rabbit IgG, monoclonal [EPR25A] - Isotype Control (ab172730) instead of ab183979 in RAW 264.7 whole cell lysate.

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

Exposure time: 30 seconds.