abcam

ab181975

Anti-S100 alpha 6/PRA antibody [EPR13084-69]

Recombinant | RabMAb | 20ul selling size

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	EPR13084-69
Purification technique	Affinity purification Protein A
Concentration	0.165 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IP

Tested

Species	Human
Dilution info	1/20
Notes	**For unpurified use at 1/60.**

Expected

Species	Mouse, Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

WB

Tested

Species	Mouse
Dilution info	1/1000
Notes	**For unpurified use at 1/10000 - 1/50000.**

Species	Rat
Dilution info	1/1000
Notes	**For unpurified use at 1/10000 - 1/50000.**

Species	Human
Dilution info	1/1000
Notes	**For unpurified use at 1/10000 - 1/50000.**

IHC-P

Tested

Species	Human
Dilution info	1/4000
Notes	For unpurified use at 1/50 - 1/100. Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	1/250
Notes	For unpurified use at 1/500.

Expected

Species	Mouse, Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/20
Notes	ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody. **For unpurified use at 1/30.**

Expected

Species	Mouse, Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

Target data

See full target information S100A6

Function	May function as calcium sensor and modulator, contributing to cellular calcium signaling. May function by interacting with other proteins, such as TPR-containing proteins, and indirectly play a role in many physiological processes such as the reorganization of the actin cytoskeleton and in cell motility. Binds 2 calcium ions. Calcium binding is cooperative. (Microbial infection) Facilitates attachment and invasion of Toxoplasma gondii parasites.

Storage

Shipped at conditions	Conditional Ambient
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Notes

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

What are the advantages of a recombinant monoclonal antibody?
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 batch production

For more information, read more on recombinant antibodies.

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	S100 alpha 6 also known as PRA is a member of the S100 protein family characterized by its small molecular weight of approximately 10 kDa. This protein expresses in various tissues including the heart skeletal muscle kidney and brain. The S100 family proteins commonly contain two EF-hand calcium-binding motifs

	which play key roles in intracellular and extracellular regulatory activities. S100 alpha 6 participates in calcium-dependent signal transduction processes that affect a range of cellular functions.
Biological function summary	S100 alpha 6 plays a significant role in intracellular calcium signaling and cytoskeletal dynamics. This protein often interacts as a part of protein complexes with various other proteins including annexin and tropomyosin contributing to vital cellular functions like contraction motility and cell cycle regulation. Its expression levels and spatial distribution influence cellular proliferation and differentiation making it an important component in several cell types.
Pathways	The protein S100 alpha 6 participates in essential pathways such as the MAPK and calcium signaling pathways. In the MAPK pathway S100 alpha 6 interacts with proteins like ERK1/2 influencing cell growth and apoptosis signaling cascades. In calcium signaling it helps regulate the release and uptake of calcium ions vital for maintaining cellular homeostasis and function. Through these pathways S100 alpha 6 is interconnected with other proteins like calmodulin and calcyclin which share similar physiological roles.
Associated diseases and disorders	Increased or decreased expression of S100 alpha 6 relates to conditions such as cancer and cardiomyopathy. In cancer S100 alpha 6 often associates with dysregulated cell growth and can influence tumor progression through its interactions with proteins such as p53 and MDM2. In cardiomyopathy it affects calcium-handling properties in heart muscle cells linking it to cardiac dysfunction. These associations highlight its impact on disease development and progression making it a target for research in therapeutic strategies.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

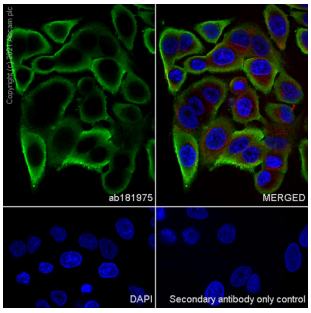
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

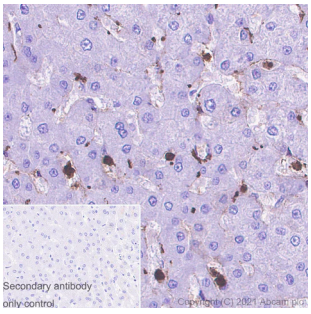
8 product images



Immunocytochemistry/ Immunofluorescence - Anti-S100 alpha 6/PRA antibody [EPR13084-69] (ab181975)

S100 alpha 6/PRA Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-S100 alpha 6/PRA antibody

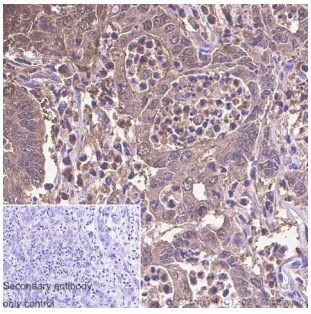
Immunocytochemistry analysis of A549 (Human lung carcinoma epithelial cell) cells labeling S100 alpha 6/PRA with purified ab181975 at 1:250 dilution (0.66 µg/ml). Cells were fixed in 4% Paraformaldehyde and permeabilized with 0.1% tritonX-100. Cells were counterstained with Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) at 1/200 dilution (2.5 µg/ml) (ab195889) (red). Goat anti-rabbit IgG (Alexa Fluor® 488) (ab150077) was used as the secondary antibody at 1:1000 (2 µg/ml) dilution. DAPI (blue) was used as a nuclear counterstain. PBS instead of the primary antibody was used as the secondary antibody only control.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-S100 alpha 6/PRA antibody [EPR13084-69] (ab181975)

S100 alpha 6/PRA Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-S100 alpha 6/PRA antibody

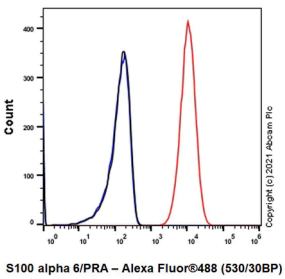
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human liver tissue sections labeling S100 alpha 6/PRA with Purified ab181975 at 1:4000 (0.04 µg/ml). Heat mediated antigen retrieval was performed using Bond™ Epitope Retrieval Solution 2 (pH 9.0). Tissue was counterstained with Hematoxylin. Rabbit specific IHC polymer detection kit HRP/DAB (ab209101) secondary antibody was used. PBS instead of the primary antibody was used as the negative control. The immunostaining was performed on a Leica Biosystems BOND® RX instrument.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-S100 alpha 6/PRA antibody [EPR13084-69] (ab181975)

S100 alpha 6/PRA Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-S100 alpha 6/PRA antibody

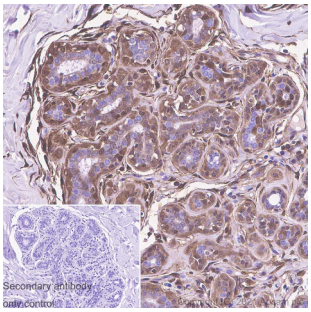
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human gastric carcinoma tissue sections labeling S100 alpha 6/PRA with Purified ab181975 at 1:4000 (0.04 µg/ml). Heat mediated antigen retrieval was performed using Bond™ Epitope Retrieval Solution 2 (pH 9.0). Tissue was counterstained with Hematoxylin. Rabbit specific IHC polymer detection kit HRP/DAB (ab209101) secondary antibody was used. PBS instead of the primary antibody was used as the negative control. The immunostaining was performed on a Leica Biosystems BOND® RX instrument.



Flow Cytometry (Intracellular) - Anti-S100 alpha 6/PRA antibody [EPR13084-69] (ab181975)

S100 alpha 6/PRA Flow Cytometry (Intracellular) staining using rabbit Anti-S100 alpha 6/PRA antibody

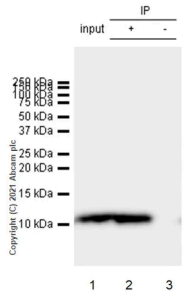
Flow Cytometry analysis of HeLa (Human cervix adenocarcinoma epithelial cell) cells labelling S100 alpha 6/PRA with purified ab181975 at 1/20 dilution (10 µg/ml) (red). Cells were fixed with 4% Paraformaldehyde and permeabilised with 90% Methanol. A Goat anti-rabbit IgG (Alexa Fluor® 488) (ab150081) secondary antibody was used at 1/2000. Isotype control - Rabbit monoclonal IgG (black). Unlabelled control - Cell without incubation with primary antibody and secondary antibody (blue).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-S100 alpha 6/PRA antibody [EPR13084-69] (ab181975)

S100 alpha 6/PRA Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-S100 alpha 6/PRA antibody

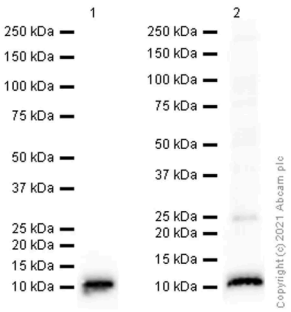
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human breast tissue sections labeling S100 alpha 6/PRA with Purified ab181975 at 1:4000 (0.04 µg/ml). Heat mediated antigen retrieval was performed using Bond™ Epitope Retrieval Solution 2 (pH 9.0). Tissue was counterstained with Hematoxylin. Rabbit specific IHC polymer detection kit HRP/DAB (ab209101) secondary antibody was used. PBS instead of the primary antibody was used as the negative control. The immunostaining was performed on a Leica Biosystems BOND® RX instrument.



Immunoprecipitation - Anti-S100 alpha 6/PRA antibody [EPR13084-69] (ab181975)

Purified ab181975 at 1/20 dilution (0.8 µg) immunoprecipitating S100 alpha 6/PRA in HeLa whole cell lysate.
Lane 1 (input): HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysate 10 µg.
Lane 2 (+): ab181975 + HeLa whole cell lysate.
Lane 3 (-): Rabbit monoclonal IgG (ab172730) instead of ab181975 in HeLa whole cell lysate.
VeriBlot for IP Detection Reagent (HRP) (ab131366) (1/1000 dilution) was used for Western blotting.
Blocking Buffer and concentration: 5% NFDM/TBST.
Diluting buffer and concentration: 5% NFDM/TBST.
Observed band size: 10 kDa
All lanes:
Immunoprecipitation - Anti-S100 alpha 6/PRA antibody [EPR13084-69] (ab181975)

Predicted band size: 10 kDa



Western blot - Anti-S100 alpha 6/PRA antibody [EPR13084-69] (ab181975)

S100 alpha 6/PRA Western blot staining using rabbit Anti-S100 alpha 6/PRA antibody

All lanes:
Western blot - Anti-S100 alpha 6/PRA antibody [EPR13084-69] (ab181975) at 1/1000 dilution

Lane 1:
HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysate at 15 µg

Lane 2:
Human lung lysate at 20 µg

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

Predicted band size: 10 kDa

Observed band size: 10 kDa



Western blot - Anti-S100 alpha 6/PRA antibody [EPR13084-69] (ab181975)

S100 alpha 6/PRA Western blot staining using rabbit Anti-S100 alpha 6/PRA antibody

All lanes:
Western blot - Anti-S100 alpha 6/PRA antibody [EPR13084-69] (ab181975) at 1/1000 dilution

Lane 1:
Mouse heart lysate at 20 µg

Lane 2:
Mouse kidney lysate at 20 µg

Lane 3:
Mouse spleen lysate at 20 µg

Lane 4:
RAW 264.7 (Mouse Abelson murine leukemia virus-induced tumor macrophage) whole cell lysate at 20 µg

Lane 5:
Rat kidney lysate at 20 µg

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

Predicted band size: 10 kDa

Observed band size: 10 kDa

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.