abcam

ab124688

Anti-SCAI antibody [EPR4128]

Recombinant | RabMAb

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 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	EPR4128
Purification technique	Affinity purification Protein A
Dissociation constant	5.8 x 10^{-12} M
Concentration	0.907 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IHC-P

Tested

Species	Human
Dilution info	1/50
Notes	**For unpurified, use 1/5.**

Perform heat-mediated antigen retrieval before commencing with IHC staining protocol.

Expected

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

WB

Tested

Species	Mouse
Dilution info	1/1000 - 1/2000
Notes	**For unpurified, use 1/200.**

Species	Human
Dilution info	1/1000 - 1/2000
Notes	**For unpurified, use 1/200.**

Species	Rat
Dilution info	1/1000 - 1/2000
Notes	**For unpurified, use 1/200.**

ICC/IF

Tested

Species	Human
Dilution info	1/400
Notes	**For unpurified, use 1/50.**

Expected

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

Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/160
Notes	For unpurified, use 1/20. ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

Expected

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

Target data

See full target information SCAI

Function	Tumor suppressor which functions to suppress MRTFA-induced SRF transcriptional activity. May function in the RHOA-DIAPH1 signal transduction pathway and regulate cell migration through transcriptional regulation of ITGB1.

Storage

Shipped at conditions	Conditional Ambient
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Storage information	Stable for 12 months at -20°C

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	SCAI also known as Suppressor of Cancer Cell Invasion is a protein involved in the regulation of cell motility. It has a molecular weight of approximately 96 kDa. SCAI is expressed in various human tissues with a notable presence in the heart and skeletal muscle. This protein plays an important role in modulating the dynamic interactions between the cellular cytoskeleton and regulatory proteins directly affecting the cell's ability to move and invade surrounding tissues.
Biological function summary	SCAI influences cell behavior through its interaction with components of the actin cytoskeleton. It serves as an essential part of the complex that suppresses the invasive behavior of cancer cells. By binding with transcription factors like MRTF and influencing their activity SCAI regulates gene expression linked to cellular movement. This regulation helps maintain the structural integrity of tissues and prevents abnormal cellular invasiveness.
Pathways	Suppression of invasive signaling connects SCAI to vital molecular mechanisms. It significantly interfaces with the SRF (serum response factor) signaling pathway directly affecting processes involving actin dynamics and transcriptional regulation. SCAI also interacts with proteins such as MRTF and G-actin playing an important role in these pathways by inhibiting excessive cellular movement maintaining normal cell function.
Associated diseases and disorders	Links between SCAI and aggressive cancer types such as breast cancer are well-established. Changes in SCAI expression are associated with increased cancer cell invasiveness and metastasis. The protein influences disease processes partly through its interaction with MRTF a critical player in oncogenic pathways. By modulating MRTF's activity SCAI potentially affects cancer progression highlighting its importance in disease regulation.

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

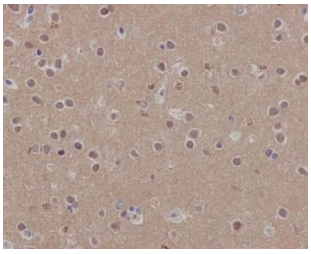
We do not recommend this combination. It is not covered by our product promise.

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.

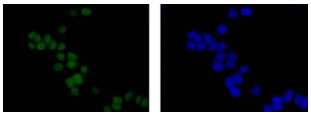
11 product images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SCAI antibody [EPR4128] (ab124688)

SCAI Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-SCAI antibody

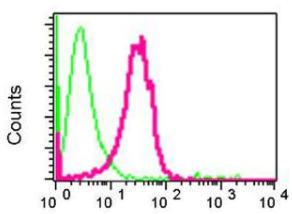
Immunohistochemical staining of paraffin embedded human brain with purified ab124688 at a working dilution of 1 in 50. The secondary antibody used is a HRP polymer for rabbit IgG. The sample is counter-stained with hematoxylin. Antigen retrieval was perfomed using Tris-EDTA buffer pH 9.0.



Immunocytochemistry/ Immunofluorescence - Anti-SCAI antibody [EPR4128] (ab124688)

SCAI Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-SCAI antibody

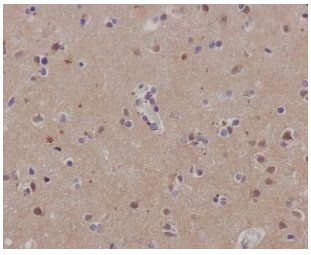
Immunofluorescent staining of MCF7 cells (fixed with 4% PFA) with unpurified ab124688 at a dilution of 1/50. An Alexa Fluor® 488 goat anti-rabbit antibody was used as the secondary at a dilution of 1/200. The panel on the right shows the DAPI counter-staining.



Flow Cytometry (Intracellular) - Anti-SCAI antibody [EPR4128] (ab124688)

SCAI Flow Cytometry (Intracellular) staining using rabbit Anti-SCAI antibody

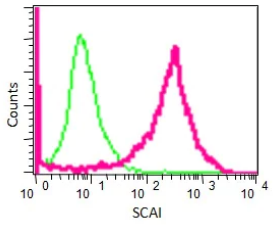
Unpurified ab124688 at 1/100 dilution staining SCAI in SH-SY5Y cells by intracellular flow cytometry (red) compared to a nonspecific negative control antibody (green).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SCAI antibody [EPR4128] (ab124688)

SCAI Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-SCAI antibody

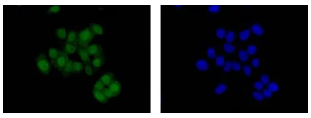
Immunohistochemical staining of paraffin embedded human brain with unpurified ab124688 at a working dilution of 1 in 5. The secondary antibody used is a HRP polymer for rabbit IgG. The sample is counter-stained with hematoxylin. Antigen retrieval was perfomed using Tris-EDTA buffer pH 9.0.



Flow Cytometry (Intracellular) - Anti-SCAI antibody [EPR4128] (ab124688)

SCAI Flow Cytometry (Intracellular) staining using rabbit Anti-SCAI antibody

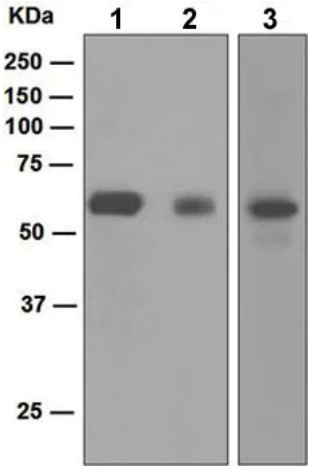
Overlay histogram showingSH-SY5Y cells fixed in 2% PFA and stained with purified ab124688 at a dilution of 1 in160 (pink line). The secondary antibody used was FITC goat anti-rabbit at a dilution of 1 in 150. Rabbit monoclonal IgG was used as an isotype control.



Immunocytochemistry/ Immunofluorescence - Anti-SCAI antibody [EPR4128] (ab124688)

SCAI Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-SCAI antibody

Immunofluorescent staining of MCF7 cells (fixed with 4% PFA) with purified ab124688 at a dilution of 1/400. An Alexa Fluor® 488 goat anti-rabbit antibody was used as the secondary at a dilution of 1/200. The panel on the right shows the DAPI counter-staining.



Western blot - Anti-SCAI antibody [EPR4128] (ab124688)

All lanes:
Western blot - Anti-SCAI antibody [EPR4128] (ab124688) at 1/1000 dilution

Lane 1:
Human Thymus lysate at 10 µg

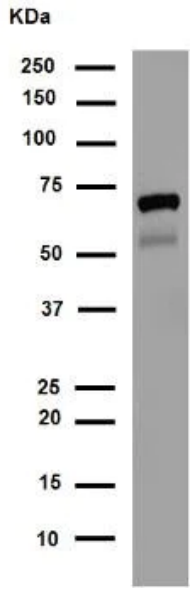
Lane 2:
Human Thyroid lysate at 10 µg

Lane 3:
293T cell lysate at 10 µg

Secondary

All lanes:
Goat-anti-rabbit HRP at 1/2000 dilution

Predicted band size: 11 kDa, 70 kDa



Western blot - Anti-SCAI antibody [EPR4128] (ab124688)

SCAI Western blot staining of Human thyroid tissue lysate using rabbit Anti-SCAI antibody

Blocking buffer: 5% NFDM/TBST
Dilution buffer: 5% NFDM/TBST

All lanes:
Western blot - Anti-SCAI antibody [EPR4128] (ab124688) at 1/1600 dilution

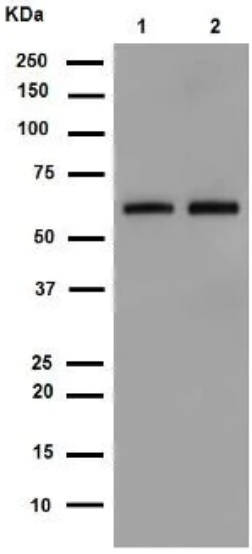
All lanes:
Human thyroid tissue lysate at 20 µg

Secondary

All lanes:
HRP goat anti-rabbit (H+L) at 1/1000 dilution

Predicted band size: 70 kDa

Observed band size: 66 kDa



Western blot - Anti-SCAI antibody [EPR4128] (ab124688)

SCAI Western blot staining using rabbit Anti-SCAI antibody

Blocking buffer: 5% NFDM/TBST
Dilution buffer: 5% NFDM/TBST

All lanes:
Western blot - Anti-SCAI antibody [EPR4128] (ab124688) at 1/1600 dilution

Lane 1:
Mouse brain tissue lysate at 20 µg

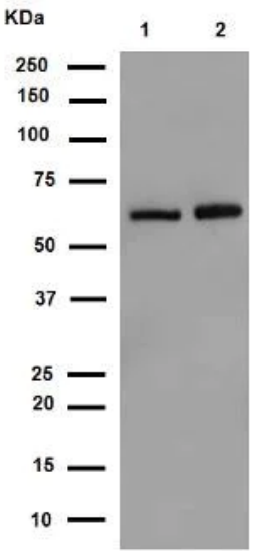
Lane 2:
Rat brain tissue lysate at 20 µg

Secondary

All lanes:
HRP goat anti-rabbit (H+L) at 1/1000 dilution

Predicted band size: 70 kDa

Observed band size: 66 kDa



Western blot - Anti-SCAI antibody [EPR4128] (ab124688)

Blocking buffer: 5% NFDM/TBST
Dilution buffer: 5% NFDM/TBST

All lanes:
Western blot - Anti-SCAI antibody [EPR4128] (ab124688) at 1/200 dilution

Lane 1:
Mouse brain tissue lysate at 20 µg

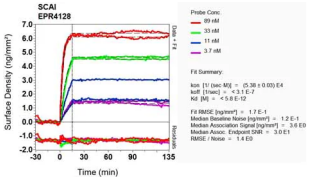
Lane 2:
Rat brain tissue lysate at 20 µg

Secondary

All lanes:
HRP goat anti-rabbit (H+L) at 1/1000 dilution

Predicted band size: 70 kDa

Observed band size: 66 kDa



OI-RD Scanning - Anti-SCAI antibody [EPR4128] (ab124688)

We have systematically measured KD (the equilibrium dissociation constant between the antibody and its antigen), of more than 840 recombinant antibodies to assess not only their individual KD values but also to see the average affinity of antibody. Based on the comparison with published literature values for mouse monoclonal antibodies, Recombinant antibodies appear to be on average 1-2 order of magnitude higher affinity.

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