abcam

ab247960

Anti-SCAI antibody [EPR4128] - BSA and Azide free

Recombinant | RabMAb

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Carrier free	Yes
Clone number	EPR4128
Purification technique	Affinity purification Protein A
Dissociation constant	5.8 x 10^{-12} M
Concentration	1.029 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IHC-P

Tested

Species	Human
Dilution info	-

Notes	-

Expected

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

ICC/IF

Tested

Species	Human
Dilution info	-
Notes	-

Expected

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

WB

Tested

Species	Mouse, Human, Rat
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	-
Notes	-

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	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C
Storage information	Do Not Freeze

Notes

ab247960 is the carrier-free version of ab124688.

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.

Conjugation ready

Our carrier-free antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide

and glycerol. 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.

Compatibility
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.

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.

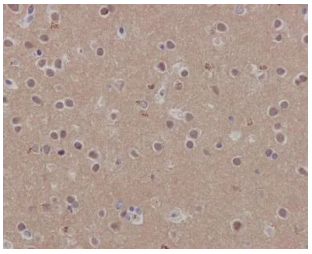
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

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.

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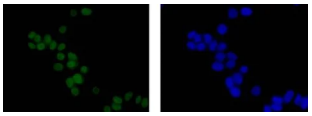
11 product images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SCAI antibody [EPR4128] - BSA and Azide free (ab247960)

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

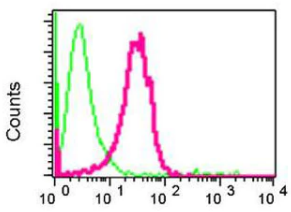
This data was developed using ab124688, the same antibody clone in a different buffer formulation.
Immunohistochemical staining of paraffin embedded human brain with purified ab124688 at a working dilution of 1 in 50. The secondary antibody used is a HRP polymer for rabbit IgG. The sample is counter-stained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



Immunocytochemistry/ Immunofluorescence - Anti-SCAI antibody [EPR4128] - BSA and Azide free (ab247960)

SCAI Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-SCAI antibody

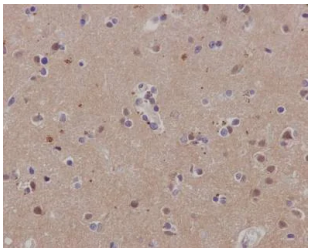
This data was developed using ab124688, the same antibody clone in a different buffer formulation.
Immunofluorescent staining of MCF7 cells (fixed with 4% PFA) with unpurified ab124688 at a dilution of 1/50. An Alexa Fluor® 488 goat anti-rabbit antibody was used as the secondary at a dilution of 1/200.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



Flow Cytometry (Intracellular) - Anti-SCAI antibody [EPR4128] - BSA and Azide free (ab247960)

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

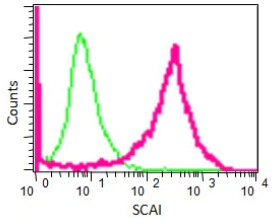
This data was developed using ab124688, the same antibody clone in a different buffer formulation.
Unpurified ab124688 at 1/100 dilution staining SCAI in SH-SY5Y cells by intracellular flow cytometry (red) compared to a nonspecific negative control antibody (green).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SCAI antibody [EPR4128] - BSA and Azide free (ab247960)

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

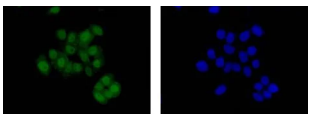
This data was developed using ab124688, the same antibody clone in a different buffer formulation.
Immunohistochemical staining of paraffin embedded human brain with unpurified ab124688 at a working dilution of 1 in 5. The secondary antibody used is a HRP polymer for rabbit IgG. The sample is counter-stained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



Flow Cytometry (Intracellular) - Anti-SCAI antibody [EPR4128] - BSA and Azide free (ab247960)

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

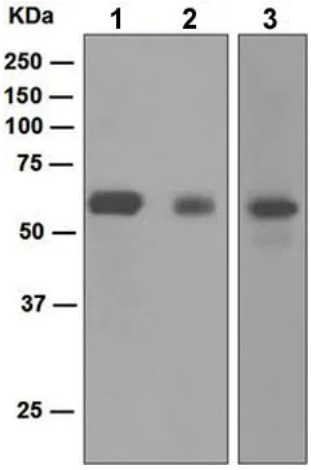
This data was developed using ab124688, the same antibody clone in a different buffer formulation.
Overlay histogram showing SH-SY5Y cells fixed in 2% PFA and stained with purified ab124688 at a dilution of 1 in 160 (pink line). The secondary antibody used was FITC goat anti-rabbit at a dilution of 1 in 150. Rabbit monoclonal IgG was used as an isotype control.



Immunocytochemistry/ Immunofluorescence - Anti-SCAI antibody [EPR4128] - BSA and Azide free (ab247960)

SCAI Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-SCAI antibody

This data was developed using ab124688, the same antibody clone in a different buffer formulation.
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] - BSA and Azide free (ab247960)

This data was developed using ab124688, the same antibody clone in a different buffer formulation.
All lanes:
Western blot - Anti-SCAI antibody [EPR4128] (ab124688) at 1/1000 dilution

Lane 1:
Human Thymus lysate at 10 µg

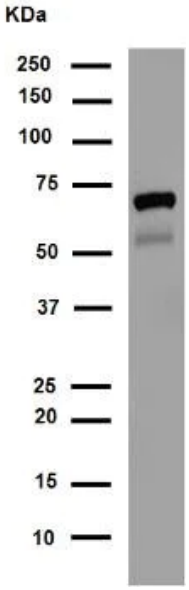
Lane 2:
Human Thyroid lysate at 10 µg

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] - BSA and Azide free (ab247960)

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

This data was developed using ab124688, the same antibody clone in a different buffer formulation.
Blocking and dilution buffer: 5% NFDM/TBST.

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

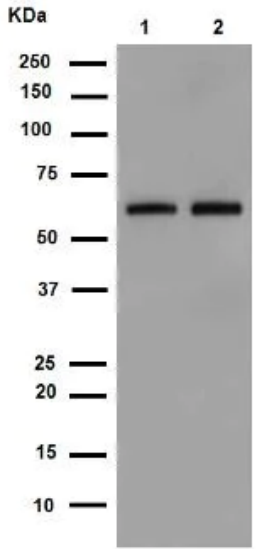
All lanes:
Human thyroid tissue lysate at 20 µg

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] - BSA and Azide free (ab247960)

SCAI Western blot staining using rabbit Anti-SCAI antibody

This data was developed using ab124688, the same antibody clone in a different buffer formulation.
Blocking and 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

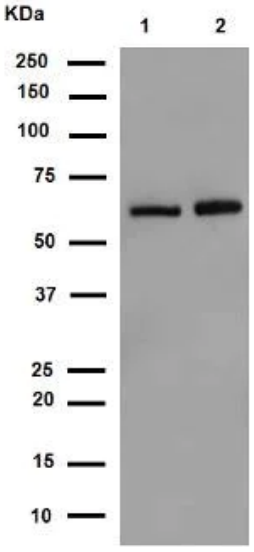
Lane 2:
Rat brain tissue lysate at 20 µg

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] - BSA and Azide free (ab247960)

This data was developed using ab124688, the same antibody clone in a different buffer formulation.
Blocking and 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

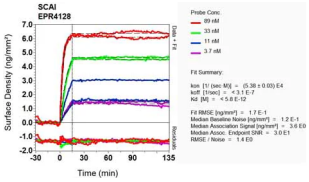
Lane 2:
Rat brain tissue lysate at 20 µg

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] - BSA and Azide free (ab247960)

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'.