abcam

ab207743

Anti-SPARC antibody [EPR20121]

Recombinant | RabMAb | KO Validated | 20ul selling size

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	EPR20121
Purification technique	Affinity purification Protein A
Concentration	0.747 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IP

Tested

Species	Human
Dilution info	1/40
Notes	-

Not recommended

Species	Mouse
Dilution info	-
Notes	-

WB

Tested

Species	Human
Dilution info	1/1000
Notes	-

Not recommended

Species	Mouse
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/70
Notes	ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

Not recommended

Species	Mouse
Dilution info	-
Notes	-

ICC/IF

Not recommended

Species	Mouse, Human
Dilution info	-
Notes	-

Target data

See full target information SPARC

Function	Appears to regulate cell growth through interactions with the extracellular matrix and cytokines. Binds calcium and copper, several types of collagen, albumin, thrombospondin, PDGF and cell membranes. There are two calcium binding sites; an acidic domain that binds 5 to 8 Ca(2+) with a low affinity and an EF-hand loop that binds a Ca(2+) ion with a high affinity.

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	SPARC also known as Secreted Protein Acidic and Rich in Cysteine or osteonectin is a glycoprotein with a molecular mass of approximately 32 to 43 kDa. It is widely expressed in various tissues notably within the bone skin and extracellular matrix. SPARC influences cell-matrix interactions and modulates cellular functions such as proliferation and migration. The protein plays a role in tissue remodeling and wound healing by interacting with structural components of the matrix and regulating cell adhesion.
Biological function summary	SPARC impacts processes related to cell communication and matrix dynamics. It does not form part of large complexes but functions through interactions with matrix molecules and receptors. SPARC regulates collagen fibrillogenesis and influences the bioavailability of growth factors. It further affects angiogenesis through its ability to alter cellular adhesion and spreading which impacts vascular development and repair processes.
Pathways	SPARC integrates into regulatory cascades such as the WNT signaling and TGF-β pathways. These pathways are essential for cellular growth repair and differentiation. In the context of the TGF-β signaling pathway SPARC modulates interactions with proteins like integrins and collagens impacting fibrotic processes and matrix assembly.
Associated diseases and disorders	Alterations in SPARC expression show associations with cancer and fibrosis. The protein functions in tumor progression where it can influence tumor cell interactions with the stroma and affect cell migration and invasion. Furthermore in fibrotic diseases SPARC regulates the deposition and organization of collagen contributing to tissue stiffening. Connections are evident between SPARC and other matrix proteins like fibronectin known for their roles in these pathological conditions.

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

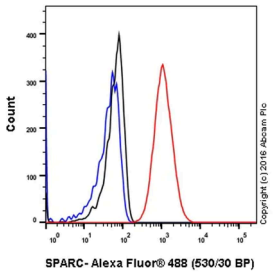
We do not recommend this combination. It is not covered by our product promise.

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.

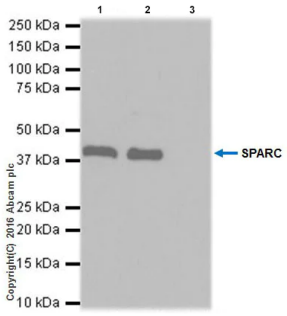
5 product images



Flow Cytometry (Intracellular) - Anti-SPARC antibody [EPR20121] (ab207743)

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

Intracellular flow cytometric analysis of 4% paraformaldehyde-fixed A-375 (Human malignant melanoma cell line) cells labeling SPARCwith ab207743 at 1/70 dilution (red) compared with a rabbit monoclonal IgG isotype control (ab172730; black) and an unlabeled control (cells without incubation with primary antibody and secondary antibody; blue). Goat anti rabbit IgG (Alexa Fluor® 488) at 1/2000 dilution was used as the secondary antibody.



Immunoprecipitation - Anti-SPARC antibody [EPR20121] (ab207743)

SPARC was immunoprecipitated from 0.35 mg of A-375 (Human malignant melanoma cell line) whole cell lysate with ab207743 at 1/40 dilution.
Western blot was performed from the immunoprecipitate using ab207743 at 1/1000 dilution.

VeriBlot for IP Detection Reagent (HRP) (ab131366), was used for detection at 1/10000 dilution.

Lane 1: A-375 whole cell lysate, 10µg (Input).

Lane 2: ab207743 IP in A-375 whole cell lysate.

Lane 3: Rabbit monoclonal IgG (ab172730) instead of ab207743 in A-375 whole cell lysate.

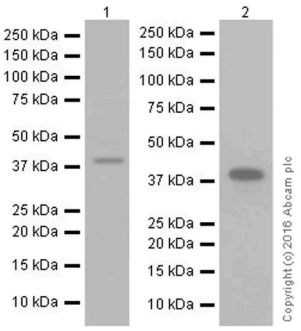
Blocking and dilution buffer and concentration: 5% NFDM/TBST.

Exposure time: 3 minutes.

All lanes:
Immunoprecipitation - Anti-SPARC antibody [EPR20121] (ab207743)

Predicted band size: 35 kDa

Observed band size: 43 kDa



Western blot - Anti-SPARC antibody [EPR20121] (ab207743)

SPARC Western blot staining using rabbit Anti-SPARC antibody

Blocking/Dilution buffer: 5% NFDM/TBST.
All lanes:
Western blot - Anti-SPARC antibody [EPR20121] (ab207743) at 1/1000 dilution

Lane 1:
Human serum at 10 µg

Lane 2:
Human brain lysate at 10 µg

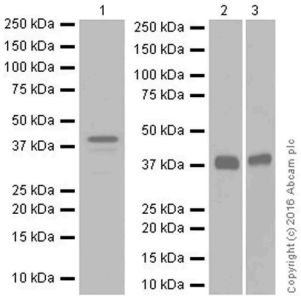
Secondary

All lanes:
Western blot - VeriBlot for IP Detection Reagent (HRP) (ab131366) at 1/4000 dilution

Predicted band size: 35 kDa

Observed band size: 43 kDa

Exposure time: 5s



Western blot - Anti-SPARC antibody [EPR20121] (ab207743)

SPARC Western blot staining using rabbit Anti-SPARC antibody

Blocking/Dilution buffer: 5% NFDM/TBST.
Exposure time: Lane 1: 30 seconds; Lane 2/3: 3 minutes.

The observed molecular weight is consistent with what has been described in the literature (PMID: 18442048).

All lanes:
Western blot - Anti-SPARC antibody [EPR20121] (ab207743) at 1/1000 dilution

Lane 1:
SH-SY5Y (Human neuroblastoma cell line from bone marrow) whole cell lysate at 20 µg

Lane 2:
A-375 (Human malignant melanoma cell line) whole cell lysate at 20 µg

Lane 3:
Human bone giant cell tumor lysate at 20 µg

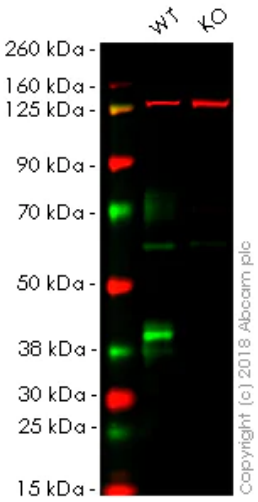
Secondary

Lanes 1 - 2:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

Lane 3:
Western blot - VeriBlot for IP Detection Reagent (HRP) (ab131366) at 1/4000 dilution

Predicted band size: 35 kDa

Observed band size: 43 kDa



Western blot - Anti-SPARC antibody [EPR20121] (ab207743)

Lanes 1 - 2: Merged signal (red and green). Green - ab207743 observed at 35 kDa. Red - loading control, ab130007, observed at 130 kDa.
ab207743 was shown to recognize SPARC in wild-type HAP1 cells as signal was lost at the expected MW in SPARC knockout cells. Additional cross-reactive bands were observed in the wild-type and knockout cells. Wild-type and SPARC knockout samples were subjected to SDS-PAGE. ab207743 and ab130007 (Mouse anti-Vinculin loading control) were incubated overnight at 4°C at 1/1000 dilution and 1/20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preabsorbed ab216773 and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed ab216776 secondary antibodies at 1/20000 dilution for 1 hour at room temperature before imaging.

All lanes:
Western blot - Anti-SPARC antibody [EPR20121] (ab207743) at 1/1000 dilution

Lane 1:
Wild-type HAP1 whole cell lysate at 20 µg

Lane 2:
SPARC knockout HAP1 whole cell lysate at 20 µg

Predicted band size: 35 kDa

Observed band size: 35 kDa

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