abcam

ab223156

Anti-SPARC antibody [EPR20121] - Low endotoxin, Azide free

Recombinant | RabMAb | KO Validated

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	EPR20121
Purification technique	Affinity purification Protein A
Concentration	1.055 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

ICC/IF

Not recommended

Species	Mouse, Human
Dilution info	-

Notes	-

IP

Tested

Species	Human
Dilution info	-
Notes	-

Not recommended

Species	Mouse
Dilution info	-
Notes	-

WB

Tested

Species	Human
Dilution info	-
Notes	-

Not recommended

Species	Mouse
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	-

Notes	ab199376 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

Not recommended

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

Notes

ab223156 is the carrier-free version of ab207743.

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.

What does low endotoxin mean?
Our low endotoxin, azide-free formats have low endotoxin level (1 EU/mg, determined by the TAL assay) and are free from azide, to achieve consistent experimental results in functional assays.

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

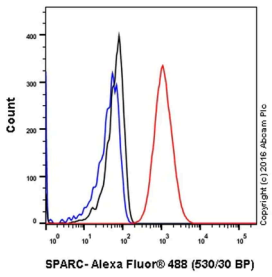
We do not recommend this combination. It is not covered by our product promise.

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.

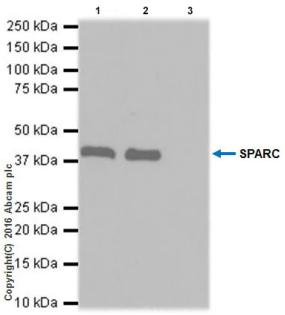
2 product images



Flow Cytometry (Intracellular) - Anti-SPARC antibody [EPR20121] - Low endotoxin, Azide free (ab223156)

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 SPARC with 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.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab207743).



Immunoprecipitation - Anti-SPARC antibody [EPR20121] - Low endotoxin, Azide free (ab223156)

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.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab207743).

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

Predicted band size: 35 kDa

Observed band size: 43 kDa

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