abcam

ab250482

Anti-SCP3 antibody [EPR12695(B)] - 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	EPR12695(B)
Purification technique	Affinity purification
Concentration	0.959 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IP

Not recommended

Species	Human, Mouse, Rat
Dilution info	-

Notes	-

WB

Tested

Species	Human
Dilution info	-
Notes	-

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

IHC-P

Not recommended

Species	Human, Mouse, Rat
Dilution info	-
Notes	-

ICC/IF

Not recommended

Species	Human, Mouse, Rat
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	-

Notes	-

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

Target data

See full target information SYCP3

Function

Component of the synaptonemal complexes (SCS), formed between homologous chromosomes during meiotic prophase. Required for centromere pairing during meiosis in male germ cells (By similarity). Required for normal meiosis during spermatogenesis and male fertility (PubMed:14643120). Plays a lesser role in female fertility. Required for efficient phosphorylation of HORMAD1 and HORMAD2 (By similarity).

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

ab250482 is the carrier-free version of ab181354.

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	The SCP3 protein also known as Synaptonemal complex protein 3 and COR1 plays an important role in cell division. It is a component of the synaptonemal complex which is essential during meiosis for chromosome pairing and recombination. SCP3 has a molecular mass of approximately 30 kDa. Researchers observe its expression in germline cells where it facilitates the accurate segregation of homologous chromosomes during the prophase I stage of meiosis.
Biological function summary	SCP3 serves an important function in organizing the scaffold of the synaptonemal complex a highly organized proteinaceous framework. This structure helps in stabilizing the pairing of homologous chromosomes and promoting synapsis. SCP3 does not work alone; it operates as part of a larger complex with other synaptonemal complex components including SCP1 and SCP2. This coordination ensures the successful exchange of genetic material between chromosomes enhancing genetic diversity in gametes.
Pathways	SCP3 integrates into the meiotic recombination process essential for gametogenesis. It aligns with the DNA repair pathway significantly impacting homologous recombination. Proteins like RAD51 and DMC1 are part of these pathways interacting indirectly with SCP3 to facilitate recombination repair processes. SCP3's role helps maintain genome integrity by ensuring faithful chromosome segregation which is critical in producing viable gametes.
Associated diseases and disorders	SCP3 implicates reproductive issues and genetic schizophrenia predispositions. Abnormal or disrupted function of SCP3 often leads to infertility due to failed meiosis impacting gamete viability. This malfunction may associate with proteins like SPO11 which initiates meiotic recombination. Alterations in SCP3's function or expression have been studied for their potential connections to schizophrenia suggesting a role in neurological development related to errors during meiosis.

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.

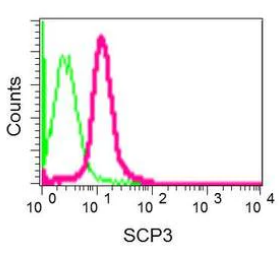
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

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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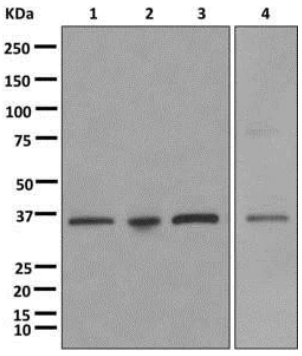
2 product images



Flow Cytometry (Intracellular) - Anti-SCP3 antibody [EPR12695(B)] - BSA and Azide free (ab250482)

SCP3 Flow Cytometry (Intracellular) staining using rabbit Anti-SCP3 antibody

This data was developed using ab181354, the same antibody clone in a different buffer formulation.
Intracellular flow cytometric analysis of permeabilized Jurkat cells labeling SCP3 with ab181354 at 1/10 dilution (red) compared to a rabbit IgG negative control (green).



Western blot - Anti-SCP3 antibody [EPR12695(B)] - BSA and Azide free (ab250482)

SCP3 Western blot staining using rabbit Anti-SCP3 antibody

This data was developed using ab181354, the same antibody clone in a different buffer formulation.
All lanes:
Western blot - Anti-SCP3 antibody [EPR12695(B)] (ab181354) at 1/1000 dilution

Lane 1:
Human testis lysate at 10 µg

Lane 2:

Human seminoma lysate at 10 µg

Lane 3:
Jurkat cell lysate at 10 µg

Lane 4:
HepG2 cell lysate at 10 µg

Predicted band size: 28 kDa

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