abcam

ab181354

Anti-SCP3 antibody [EPR12695(B)]

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	EPR12695(B)
Purification technique	Affinity purification Protein A
Concentration	0.407 - 0.419 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	1/1000 - 1/10000
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	1/10 - 1/100
Notes	ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

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	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	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.

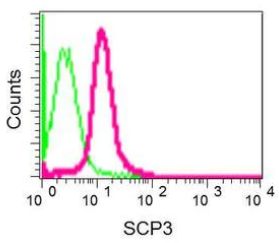
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

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.

---

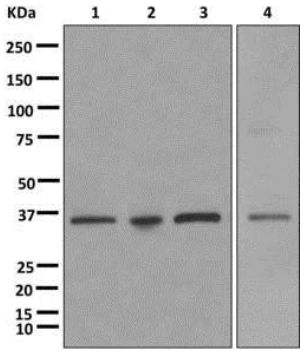
2 product images



Flow Cytometry (Intracellular) - Anti-SCP3 antibody [EPR12695(B)] (ab181354)

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

Intracellular flow cytometric analysis of permeabilized Jurkat cells labeling SCP3with ab181354 at 1/10 dilution (red) compared toa rabbit IgG negative control (green).



Western blot - Anti-SCP3 antibody [EPR12695(B)] (ab181354)

SCP3 Western blot staining using rabbit Anti-SCP3 antibody

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'.