abcam

ab249440

Anti-SAMM50/SAM50 antibody [EPR8717] - 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	EPR8717
Purification technique	Affinity purification Protein A
Concentration	1.074 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IHC-P

Tested

Species	Human
Dilution info	-

Notes	-

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

IP

Not recommended

Species	Human, Mouse, Rat
Dilution info	-
Notes	-

WB

Tested

Species	Human
Dilution info	-
Notes	-

Predicted

Species	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 SAMM50

Function	Plays a crucial role in the maintenance of the structure of mitochondrial cristae and the proper assembly of the mitochondrial respiratory chain complexes (PubMed:22252321, PubMed:25781180). Required for the assembly of TOMM40 into the TOM complex (PubMed:15644312).

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

ab249440 is the carrier-free version of ab167430.

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	SAMM50 also known as SAM50 is an important component in mitochondrial function. This protein is part of the sorting and assembly machinery (SAM) complex and is necessary for the insertion of β-barrel proteins into the mitochondrial outer membrane. SAMM50 has a molecular mass of approximately 50 kDa. It is predominantly expressed in tissues with high metabolic activity such as the liver and skeletal muscle where mitochondrial function is essential.
Biological function summary	SAMM50 functions as an integral part of the SAM complex which includes other essential subunits like SAM35 and SAM37. This complex facilitates the import and assembly of proteins into the mitochondrial outer membrane important for maintaining mitochondrial structure and function. By ensuring correct protein placement in the outer membrane SAMM50 supports mitochondrial membrane integrity and energy production processes.
Pathways	SAMM50 is involved in essential cellular pathways like mitochondrial protein import and metabolism. SAMM50 interacts with proteins such as TOM40 a component of the translocase of the outer membrane complex which assists in protein transport into mitochondrial compartments. These pathways contribute to the overall cellular energy balance and metabolic regulation reflecting the importance of SAMM50 in maintaining cellular homeostasis.
Associated diseases and disorders	Alterations in SAMM50 expression or function relate to conditions like mitochondrial myopathy and liver disease. These disorders are linked to defective mitochondrial function due to improper protein import and assembly. SAMM50's interaction with other mitochondrial proteins such as TIM23 complex components

influences these conditions by impacting the efficiency and functionality of mitochondrial protein import and assembly processes.

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

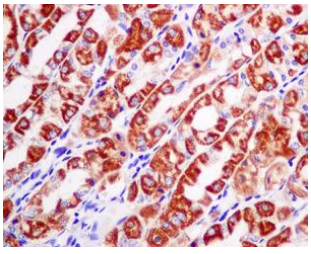
We do not recommend this combination. It is not covered by our product promise.

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.

3 product images

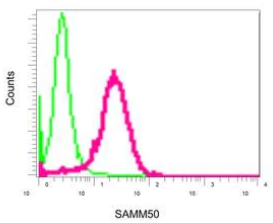


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SAMM50/SAM50 antibody [EPR8717] - BSA and Azide free (ab249440)

SAMM50/SAM50 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-SAMM50/SAM50 antibody

This data was developed using ab167430, the same antibody clone in a different buffer formulation.
Immunohistochemical analysis of formalin-fixed, paraffin-embedded Human stomach tissue, labeling SAMM50/SAM50 with ab167430 at 1/50 dilution.

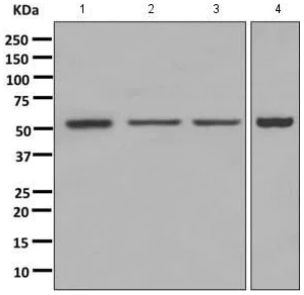
Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



Flow Cytometry (Intracellular) - Anti-SAMM50/SAM50 antibody [EPR8717] - BSA and Azide free (ab249440)

SAMM50/SAM50 Flow Cytometry (Intracellular) staining using rabbit Anti-SAMM50/SAM50 antibody

This data was developed using ab167430, the same antibody clone in a different buffer formulation.
Intracellular flow cytometric analysis of permeabilized HeLa cells labeling SAMM50/SAM50 with ab167430 at 1/10 dilution (red) or a rabbit IgG (negative) (green).



Western blot - Anti-SAMM50/SAM50 antibody [EPR8717] - BSA and Azide free (ab249440)

SAMM50/SAM50 Western blot staining using rabbit Anti-SAMM50/SAM50 antibody

This data was developed using ab167430, the same antibody clone in a different buffer formulation.
All lanes:
Western blot - Anti-SAMM50/SAM50 antibody [EPR8717] (ab167430) at 1/50000 dilution

Lane 1:
Human fetal heart tissue lysate at 10 µg

Lane 2:
A431 cell lysate at 10 µg

Lane 3:
HeLa cell lysate at 10 µg

Lane 4:
HepG2 cell lysate at 10 µg

Secondary

All lanes:
Goat anti-rabbit HRP at 1/2000 dilution

Predicted band size: 52 kDa

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