abcam

ab248906

Anti-CAMSAP2 antibody [EPR7718(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	EPR7718(B)
Purification technique	Affinity purification
Concentration	1.037 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

ICC/IF

Not recommended

Species	Human
Dilution info	-

Notes	-

IP

Not recommended

Species	Human
Dilution info	-
Notes	-

WB

Tested

Species	Human
Dilution info	-
Notes	-

IHC-P

Not recommended

Species	Human
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	-
Notes	-

Target data

See full target information CAMSAP2

Function	Key microtubule-organizing protein that specifically binds the minus-end of non-centrosomal microtubules and regulates their dynamics and organization (PubMed:23169647, PubMed:24486153, PubMed:24706919). Specifically recognizes growing microtubule minus-ends and autonomously decorates and stabilizes microtubule lattice formed by microtubule minus-end polymerization (PubMed:24486153, PubMed:24706919). Acts on free microtubule minus-ends that are not capped by microtubule-nucleating proteins or other factors and protects microtubule minus-ends from depolymerization (PubMed:24486153, PubMed:24706919). In addition, it also reduces the velocity of microtubule polymerization (PubMed:24486153, PubMed:24706919). Through the microtubule cytoskeleton, also regulates the organization of cellular organelles including the Golgi and the early endosomes (PubMed:27666745). Essential for the tethering, but not for nucleation of non-centrosomal microtubules at the Golgi: together with Golgi-associated proteins AKAP9 and PDE4DIP, required to tether non-centrosomal minus-end microtubules to the Golgi, an important step for polarized cell movement (PubMed:27666745). Also acts as a regulator of neuronal polarity and development: localizes to non-centrosomal microtubule minus-ends in neurons and stabilizes non-centrosomal microtubules, which is required for neuronal polarity, axon specification and dendritic branch formation (PubMed:24908486). Through the microtubule cytoskeleton, regulates the autophagosome transport (PubMed:28726242).

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

ab248906 is the carrier-free version of ab140619.

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	CAMSAP2 also known as calmodulin-regulated spectrin-associated protein family member 2 is a microtubule-stabilizing protein with a molecular mass of approximately 198 kDa. It binds to the minus ends of microtubules stabilizing them and regulating their dynamics. CAMSAP2 is expressed in various tissues with a significant presence in neuronal tissue. The protein plays a vital role in stabilizing the microtubule network which influences cellular architecture and intracellular transport.
Biological function summary	The regulation of microtubule dynamics by CAMSAP2 ensures proper neuronal development and function. CAMSAP2 is part of a protein complex that is essential for maintaining microtubule integrity and organization. It interacts with other proteins such as CAMSAP1 and CAMSAP3 each playing distinct roles in microtubule arrangement. These interactions help in maintaining cellular structures which are necessary for processes like cellular division and differentiation.
Pathways	CAMSAP2 is involved in microtubule-associated pathways critical for cell stability and signaling. The protein is part of the axon guidance pathway where it functions alongside other proteins including PTEN and CRMP2 to ensure correct neural network formation. CAMSAP2 also engages in the regulation of cytoskeleton organization pathways where it collaborates with microtubule-associated proteins to support cellular morphology and dynamics.
Associated diseases and disorders	CAMSAP2 plays a part in conditions affecting the nervous system such as neurodevelopmental disorders and certain neurodegenerative diseases. Mutations or dysregulation of CAMSAP2 have been linked to intellectual disabilities due to its role in neuronal structure and signaling. This protein also interacts with tau a protein commonly associated with neurodegenerative disorders like Alzheimer's disease suggesting a potential link between CAMSAP2 function and tauopathies.

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

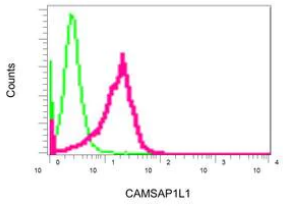
We do not recommend this combination. It is not covered by our product promise.

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.

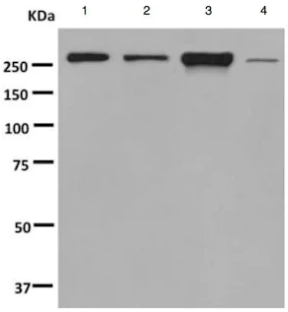
2 product images



Flow Cytometry (Intracellular) - Anti-CAMSAP2 antibody [EPR7718(B)] - BSA and Azide free (ab248906)

CAMSAP2 Flow Cytometry (Intracellular) staining using rabbit Anti-CAMSAP2 antibody

This data was developed using ab140619, the same antibody clone in a different buffer formulation.
Intracellular flow cytometric analysis of HeLa cells labelling CAMSAP2 with ab140619 at 1/10 dilution (red); rabbit IgG negative (green).



Western blot - Anti-CAMSAP2 antibody [EPR7718(B)] - BSA and Azide free (ab248906)

This data was developed using ab140619, the same antibody clone in a different buffer formulation.
All lanes:
Western blot - Anti-CAMSAP2 antibody [EPR7718(B)] - BSA and Azide free (ab248906) at 1/1000 dilution

Lane 1:
HeLa cell lysate at 10 µg

Lane 2:
PC3 cell lysate at 10 µg

Lane 3:

293T cell lysate at 10 µg

Lane 4:
Human fetal brain lysate at 10 µg

Secondary

All lanes:
HRP labelled goat anti-rabbit IgG at 1/2000 dilution

Predicted band size: 168 kDa

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