abcam

ab133558

Anti-CAP2 antibody [EPR6378]

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	EPR6378
Purification technique	Affinity purification Protein A
Dissociation constant	2.8 x 10^{-12} M
Concentration	0.235 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IP

Not recommended

Species	Human
Dilution info	-
Notes	-

WB

Tested

Species	Human
Dilution info	1/1000 - 1/10000
Notes	-

IHC-P

Not recommended

Species	Human
Dilution info	-
Notes	-

ICC/IF

Not recommended

Species	Human
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.

Target data

See full target information Adenylyl cyclase-associated protein 2

Function Involved in the regulation of actin polymerization.

Storage

Shipped at conditions	Conditional Ambient
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Storage information	Stable for 12 months at -20°C

Notes

Species reactivity
Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with these species. Please contact us for more information.

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	CAP2 also known as Cyclase Associated Protein 2 is a protein playing an essential role in actin dynamics. It has a molecular mass of approximately 54 kDa. Researchers have detected its expression in various tissues including the heart skeletal muscle and brain. CAP2 influences the organization of the cytoskeleton by binding to actin filaments and regulating their polymerization and depolymerization. Its activity makes it an important player in cell motility and structure maintenance.
Biological function summary	CAP2 contributes to cellular processes by modulating actin filament turnover and facilitating actin recycling. It operates as part of a protein complex that includes other actin-binding proteins often working in tandem with profilin and cofilin. This complex formation is integral to the regulation of cytoskeletal organization impacting important cellular functions like cell division intracellular transport and signal transduction.

Pathways	CAP2 is an active participant in pathways controlling cell movement and structural integrity particularly the actin cytoskeleton signaling pathway. In this role CAP2 interacts with proteins such as cofilin which also modulates actin dynamics to maintain a balance of actin filament assembly and disassembly. Another pathway CAP2 is involved in is the cell adhesion pathway where it helps facilitate the dynamic remodeling necessary for cell attachment and migration.
Associated diseases and disorders	CAP2 has been linked to cardiac diseases and cancer. Alterations in CAP2 expression have been associated with the development of dilated cardiomyopathy a condition marked by weakened heart muscle functionality. Furthermore CAP2 has demonstrated interactions with p53 a protein often mutated in cancers implicating it in processes that may contribute to tumor growth and metastasis. These connections reveal its importance not only in normal cellular function but also in pathological states.

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

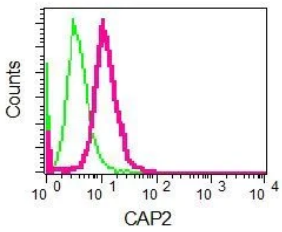
We do not recommend this combination. It is not covered by our product promise.

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.

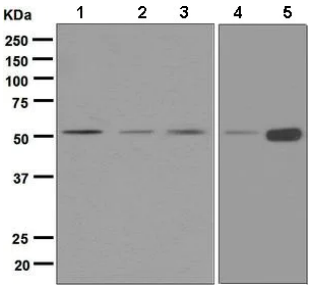
3 product images



Flow Cytometry (Intracellular) - Anti-CAP2 antibody [EPR6378] (ab133558)

CAP2 Flow Cytometry (Intracellular) staining using rabbit Anti-CAP2 antibody

Intracellular flow cytometric analysis of permeabilized Saos 2 cells labelling CAP2 with ab133558 at 1/10 dilution (red) or a rabbit IgG (negative) (green).



Western blot - Anti-CAP2 antibody [EPR6378] (ab133558)

All lanes:
Western blot - Anti-CAP2 antibody [EPR6378] (ab133558) at 1/1000 dilution

Lane 1:
Saos 2 cell lysate at 10 µg

Lane 2:
A673 cell lysate at 10 µg

Lane 3:
Human testis cell lysate at 10 µg

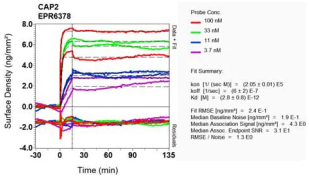
Lane 4:
Human heart cell lysate at 10 µg

Lane 5:
Human fetal muscle cell lysate at 10 µg

Secondary

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

Predicted band size: 53 kDa



OI-RD Scanning - Anti-CAP2 antibody [EPR6378] (ab133558)

We have systematically measured KD (the equilibrium dissociation constant between the antibody and its antigen), of more than 840 recombinant antibodies to assess not only their individual KD values but also to see the average affinity of antibody. Based on the comparison with published literature values for mouse monoclonal antibodies, Recombinant antibodies appear to be on average 1-2 order of magnitude higher affinity.

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