abcam

ab170926

Anti-Calpain 15/SOLH antibody [EPR11078]

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	EPR11078
Purification technique	Affinity purification Protein A
Concentration	1.186 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	1/1000 - 1/5000
Notes	-

IHC-P

Not recommended

Species	Human
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/100 - 1/500
Notes	ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

Target data

See full target information CAPN15

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

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	Calpain 15 also known as SOLH (small optic lobes homolog) is a member of the calpain family of proteins which are calcium-dependent cysteine proteases. Calpain 15/SOLH has a molecular mass approximately 75 kDa. Researchers have found its expression in various tissues including the brain heart and skeletal muscle. As with other calpain proteins its function hinges on calcium concentration where it undergoes conformational changes to become active and facilitate the cleavage of its substrates.
Biological function summary	Calpain 15 functions as a calcium-regulated enzyme that participates in the modulation of cytoskeletal dynamics. This protein plays roles in cellular processes

	like migration signal transduction and apoptosis. It does not specifically associate with well-defined complexes but interacts with multiple cellular structures due to its protease activity. By controlling the degradation of specific proteins Calpain 15 regulates the restructuring of the actin cytoskeleton influencing cell shape and movement.
Pathways	Calpain 15 influences both the integrin signaling and apoptosis pathways. In integrin signaling it modifies the cytoskeleton structure for cell movement and stability. It also plays a role in apoptosis by regulating proteins such as Bcl-2 and caspases which are important for cell survival or death decisions. These interactions indicate its part in complex pathway networks that adjust cellular responses to numerous external stimuli.
Associated diseases and disorders	Researchers have linked Calpain 15 to neurological disorders including Alzheimer's disease by its involvement in neuronal cell death pathways. Its interaction with proteins like caspase-3 can amplify apoptotic signals contributing to neurodegeneration. Additionally aberrant Calpain 15 activity is connected to muscular dystrophy. The proteolytic imbalance caused by altered Calpain 15 levels impacts muscle integrity and function relating it to proteins like dystrophin which is essential for muscle stability.

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

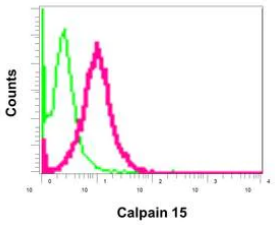
We do not recommend this combination. It is not covered by our product promise.

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.

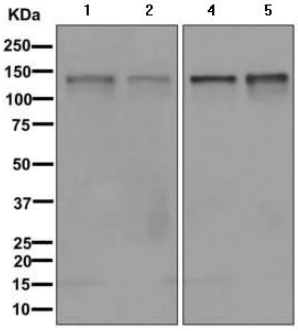
3 product images



Flow Cytometry (Intracellular) - Anti-Calpain 15/SOLH antibody [EPR11078] (ab170926)

Calpain 15/SOLH Flow Cytometry (Intracellular) staining using rabbit Anti-Calpain 15/SOLH antibody

Intracellular flow cytometric analysis of permeabilized 293T cells labeling Calpain 15/SOLH with ab170926 at 1/100 dilution (red) compared toa rabbit IgG negative control (green).



Western blot - Anti-Calpain 15/SOLH antibody [EPR11078] (ab170926)

Calpain 15/SOLH Western blot staining using rabbit Anti-Calpain 15/SOLH antibody

All lanes:
Western blot - Anti-Calpain 15/SOLH antibody [EPR11078] (ab170926) at 1/1000 dilution

Lane 1:
Human fetal lung lysate at 10 µg

Lane 2:
Human fetal brain lysate at 10 µg

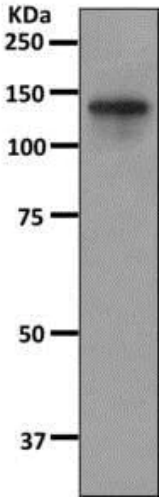
Lane 3:
HeLa cell lysate at 10 µg

Lane 4:
293T cell lysate at 10 µg

Secondary

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

Predicted band size: 117 kDa



Western blot - Anti-Calpain 15/SOLH antibody [EPR11078] (ab170926)

Calpain 15/SOLH Western blot staining of SH SY5Y cell lysate using rabbit Anti-Calpain 15/SOLH antibody

All lanes:
Western blot - Anti-Calpain 15/SOLH antibody [EPR11078] (ab170926) at 1/1000 dilution

All lanes:
SH SY5Y cell lysate at 10 µg

Secondary

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

Predicted band size: 117 kDa

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