abcam

ab172477

Anti-Calmegin antibody [EPR11832-11]

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	EPR11832-11
Purification technique	Affinity purification Protein A
Concentration	0.185 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IHC-P

Tested

Species	Human
Dilution info	1/250 - 1/500
Notes	-

Species	Common marmoset

Dilution info	1/250 - 1/500
Notes	-

Expected

Species	Mouse, Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

Predicted

Species	Chimpanzee
Dilution info	-
Notes	-

IP

Tested

Species	Human
Dilution info	1/10 - 1/100
Notes	-

Expected

Species	Common marmoset, Mouse, Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

Predicted

Species	Chimpanzee
Dilution info	-
Notes	-

WB

Tested

Species	Human
Dilution info	1/10000 - 1/50000
Notes	-

Species	Mouse
Dilution info	1/10000 - 1/50000
Notes	-

Species	Rat
Dilution info	1/10000 - 1/50000
Notes	-

Expected

Species	Common marmoset
Dilution info	Use at an assay dependent concentration.
Notes	-

Predicted

Species	Chimpanzee
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	1/100 - 1/250
Notes	-

Expected

Species	Common marmoset, Mouse, Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

Predicted

Species	Chimpanzee
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.

Expected

Species	Common marmoset, Mouse, Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

Predicted

Species	Chimpanzee
Dilution info	-
Notes	-

Target data

See full target information CLGN

Function	Functions during spermatogenesis as a chaperone for a range of client proteins that are important for sperm adhesion onto the egg zona pellucida and for

subsequent penetration of the zona pellucida. Required for normal sperm migration from the uterus into the oviduct. Required for normal male fertility. Binds calcium ions (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	Calmegin also known as CLGN is a protein involved in chaperone activity during spermatogenesis. It has a mass of approximately 65 kDa and is predominantly expressed in the testis. More specifically Calmegin is found in germ cells where it plays a role in the development and maturation of sperm. The protein ensures proper protein folding and stabilization of other proteins during sperm development.

Biological function summary	Calmegin acts as part of a complex necessary for sperm fertility and function. This protein is critical in processing and assembling the molecules required for spermatogenesis. By interacting with other chaperones Calmegin helps to regulate the endoplasmic reticulum's function in germ cells ensuring that proteins reach their target destinations correctly and are folded properly. When functioning as intended these processes facilitate normal sperm development.
Pathways	Calmegin operates within pathways critical to reproductive biology. It is closely tied to the unfolded protein response pathway which maintains protein homeostasis in cells. Additionally it works in concert with proteins like Calnexin in processes that manage protein maturation in the endoplasmic reticulum. All these interactions highlight Calmegin's role in effective protein management during germ cell development affecting male fertility.
Associated diseases and disorders	Improper function of Calmegin can link to male infertility. Deficiencies or mutations in Calmegin can interfere with spermatogenesis leading to decreased sperm quality or quantity. The protein is also associated with Calreticulin in regulatory functions and abnormalities in these proteins can further impact reproductive health negatively making them critical targets for studies related to infertility treatments.

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

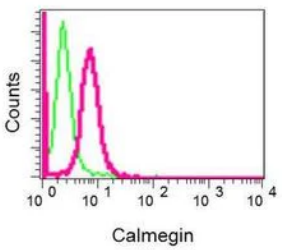
We do not recommend this combination. It is not covered by our product promise.

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.

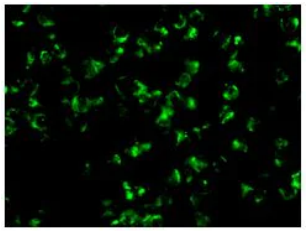
6 product images



Flow Cytometry (Intracellular) - Anti-Calmegin antibody [EPR11832-11] (ab172477)

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

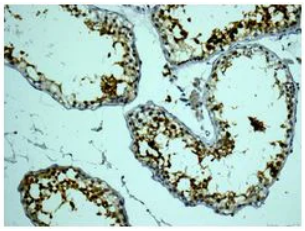
Intracellular flow cytometric analysis of permeabilized Jurkat cellslabeling Calmegin with ab172477at 1/10 dilution (red) compared with a rabbit IgG (negative) (green).



Immunocytochemistry/ Immunofluorescence - Anti-Calmegin antibody [EPR11832-11] (ab172477)

Calmegin Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-Calmegin antibody

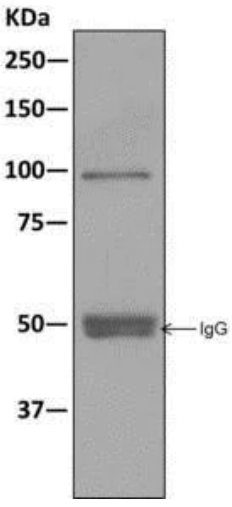
Immunofluorescent analysis of Jurkat cells labeling Calmegin with ab172477 at 1/100 dilution.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Calmegin antibody [EPR11832-11] (ab172477)

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

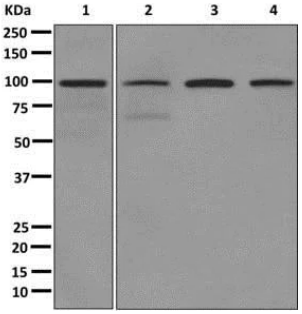
Immunohistochemical analysis of paraffin embedded Human testis tissue labeling Calmegin with ab172477 at 1/250 dilution.
Heat mediated antigen retrieval was performed with citrate buffer pH 6 before commencing with IHC staining protocol.



Immunoprecipitation - Anti-Calmegin antibody [EPR11832-11] (ab172477)

Western blot analysis on immunoprecipitation pellet from Human testis lysate labeling Calmegin with ab172477 at 1/10 dilution.
All lanes:
Immunoprecipitation - Anti-Calmegin antibody [EPR11832-11] (ab172477)

Predicted band size: 70 kDa



Western blot - Anti-Calmegin antibody [EPR11832-11] (ab172477)

All lanes:
Western blot - Anti-Calmegin antibody [EPR11832-11] (ab172477) at 1/10000 dilution

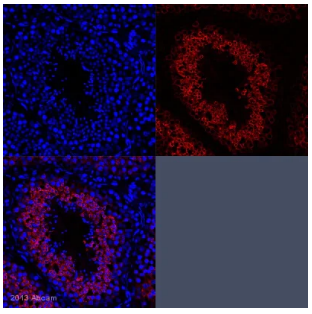
Lane 1:
Human testis tissue lysate at 10 µg

Lane 2:
Jurkat cell lysate at 10 µg

Lane 3:
Mouse testis tissue lysate at 10 µg

Lane 4:
Rat testis tissue lysate at 10 µg

Predicted band size: 70 kDa



This image is courtesy of a customer review from Zachary Yu-Ching Lin

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Calmegin antibody [EPR11832-11] (ab172477)

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

IHC-P image of Calmegin staining with ab172477 on tissue sections from adult marmoset testis. The sections were subjected to heat-mediated antigen retrieval using Dako antigen retrieval solution. The sections were then blocked with 5% milk for 30 minutes at 25°C, before incubation with ab172477 (1/100 dilution) for 18 hours at 4°C. The secondary was an Alexa-Fluor 555 conjugated goat anti-rabbit polyclonal, used at a 1/500 dilution.

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