abcam

ab23935

Anti-EHD2 antibody

Key facts

Isotype	IgG
Host species	Goat
Storage buffer	pH: 7.3 Preservative: 0.02% Sodium azide Constituents: Tris buffered saline, 0.5% BSA
Form	Liquid
Clonality	Polyclonal
Immunogen	Synthetic Peptide within Human EHD2 aa 500 to C-terminus. The exact immunogen used to generate this antibody is proprietary information. Database link Q9NZN4
Purification technique	Affinity purification Immunogen
Specificity	This antibody is expected to recognise EHD1 protein as well as EHD2.
Concentration	0.5 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →
Purification notes	Purified by ammonium sulphate precipitation followed by antigen affinity chromatography using the immunizing peptide.

Reactivity data

ICC

Tested

Species	Human
Dilution info	10 µg/mL

Notes	-

Predicted

Species	Rat, Cow, Dog, Mouse
Dilution info	-
Notes	-

WB

Tested

Species	Human
Dilution info	0.1-0.3 µg/mL
Notes	Primary incubation 1 hour at room temperature.

Predicted

Species	Rat, Cow, Dog, Mouse
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	10 µg/mL
Notes	-

Predicted

Species	Rat, Cow, Dog, Mouse
Dilution info	-
Notes	-

Target data

See full target information EHD2

Function	ATP- and membrane-binding protein that controls membrane reorganization/tubulation upon ATP hydrolysis (By similarity). Plays a role in membrane trafficking between the plasma membrane and endosomes (PubMed:17233914). Important for the internalization of GLUT4. Required for fusion of myoblasts to skeletal muscle myotubes. Required for normal translocation of FER1L5 to the plasma membrane (By similarity). Regulates the equilibrium between cell surface-associated and cell surface-dissociated caveolae by constraining caveolae at the cell membrane (PubMed:25588833).

Storage

Shipped at conditions	Blue Ice
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

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	EHD2 also known as EH domain-containing protein 2 is a mechanochemical protein with a molecular mass of approximately 61 kDa. It belongs to the dynamin superfamily of GTPases. EHD2 is frequently expressed in muscle cells adipocytes and cardiac tissues. It associates with cellular membranes particularly near caveolae where it plays a pivotal role in regulating cellular membrane dynamics and endocytosis through binding to phosphoinositides.
Biological function summary	The protein connection with membranes affects the regulation of vesicle trafficking and endosomal recycling. EHD2 functions as part of a complex with other proteins like pacsin and syndapin which modulates curvature of membranes a process essential for diverse cellular activities. By facilitating endocytosis EHD2 has a role in signaling pathways that influence cell migration and membrane repair.
Pathways	EHD2 interacts significantly with lipid raft-associated pathways which are critical in cellular communication and signal transduction. This protein interacts with the caveolin protein family particularly Caveolin-1 during caveolae-mediated

endocytosis. It contributes to the spatial organization of signaling domains impacting the cellular response to external stimuli and stress.

Associated diseases and disorders

The malfunction or altered expression of EHD2 associates with disorders such as obesity and muscle-related diseases. EHD2 dysregulation can affect Caveolin-1 contributing to abnormal vesicular transport and lipid metabolism. Such dysfunction holds potential links to the development or progression of conditions like cardiac hypertrophy highlighting the protein's importance in cellular health and disease.

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

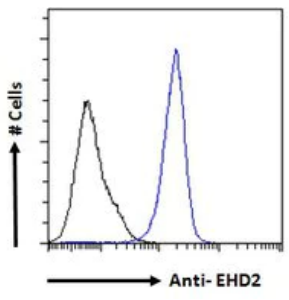
We do not recommend this combination. It is not covered by our product promise.

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.

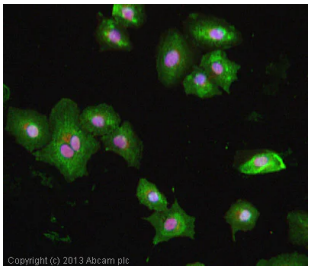
5 product images



Flow Cytometry (Intracellular) - Anti-EHD2 antibody (ab23935)

EHD2 Flow Cytometry (Intracellular) staining using goat Anti-EHD2 antibody

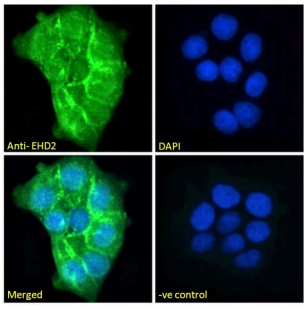
Flow cytometric analysis of paraformaldehyde fixed A431 cells (blue line), permeabilized with 0.5% Triton. Primary incubation ab23935 (10 µg/ml) followed by Alexa Fluor 488 secondary antibody (1 µg/ml). IgG control: Unimmunized goat IgG (black line) followed by Alexa Fluor 488 secondary antibody.



Immunocytochemistry - Anti-EHD2 antibody (ab23935)

EHD2 Immunocytochemistry staining using goat Anti-EHD2 antibody

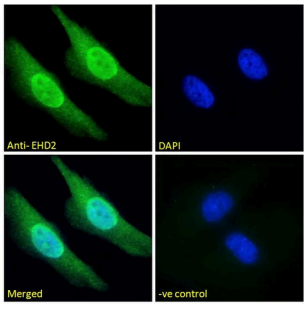
ICC/IF image of ab23935 stained A549 cells. The cells were 4% formaldehyde fixed (10 min) and then incubated in 1%BSA / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab23935, 5µg/ml) overnight at +4°C. The secondary antibody (green) was ab96931, DyLight® 488 donkey anti-goat IgG (H+L) used at a 1/250 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43µM



Immunocytochemistry - Anti-EHD2 antibody (ab23935)

EHD2 Immunocytochemistry staining using goat Anti-EHD2 antibody

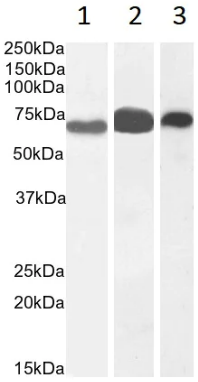
Immunofluorescence analysis of paraformaldehyde fixed A431 cells, permeabilized with 0.15% Triton. Primary incubation with ab23935 (10 µg/ml) followed by Alexa Fluor 488 secondary antibody (2 µg/ml), showing plasma membrane staining. The nuclear stain is DAPI (blue). Negative control: Unimmunized goat IgG (10 µg/ml) followed by Alexa Fluor 488 secondary antibody (2 µg/ml).



Immunocytochemistry - Anti-EHD2 antibody (ab23935)

EHD2 Immunocytochemistry staining using goat Anti-EHD2 antibody

Immunofluorescence analysis of paraformaldehyde fixed HeLa cells, permeabilized with 0.15% Triton. Primary incubation 1hr (10 µg/ml) followed by Alexa Fluor 488 secondary antibody (2 µg/ml), showing nuclear and cytoplasmic staining. The nuclear stain is DAPI (blue). Negative control: Unimmunized goat IgG (10 µg/ml) followed by Alexa Fluor 488 secondary antibody (2 µg/ml).



Western blot - Anti-EHD2 antibody (ab23935)

Lysate in RIPA buffer. Detected by chemiluminescence.
All lanes:
Western blot - Anti-EHD2 antibody (ab23935) at 0.1 µg/mL

Lane 1:
Human Lung tissue lysate at 35 µg

Lane 2:
Human colon tissue lysate at 35 µg

Lane 3:
Human placenta tissue lysate at 35 µg

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