abcam

Product datasheet

Anti-Caveolin-3 antibody ab87770

1 References 3 Images

Overview

Product name	Anti-Caveolin-3 antibody
Description	Goat polyclonal to Caveolin-3
Host species	Goat
Tested applications	**Suitable for:** WB, IHC-P
Species reactivity	**Reacts with:** Mouse, Rat, Human, Pig **Predicted to work with:** Cow, Dog
Immunogen	Synthetic peptide corresponding to Human Caveolin-3 aa 5-18 (N terminal) (Cysteine residue). Sequence: EHTDLEAQIVKDIH Database link: **P56539** Run BLAST with Run BLAST with
Positive control	Recombinant Human Caveolin-3 protein (**ab114264**) can be used as a positive control in WB. Human, mouse and rat heart lysates.
General notes	The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
Storage buffer	pH: 7.30 Preservative: 0.02% Sodium azide Constituents: 0.5% BSA, Tris buffered saline
Purity	Immunogen affinity purified
Purification notes	Purified from goat serum by ammonium sulphate precipitation followed by antigen affinity

chromatography using the immunizing peptide.

Clonality Polyclonal

Isotype IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab87770 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		Use a concentration of 0.1 - 0.3 µg/ml. Detects a band of approximately 23 kDa (predicted molecular weight: 17 kDa). 1 hour primary incubation is recommended for this product.
IHC-P		Use a concentration of 3 - 5 µg/ml. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

Target

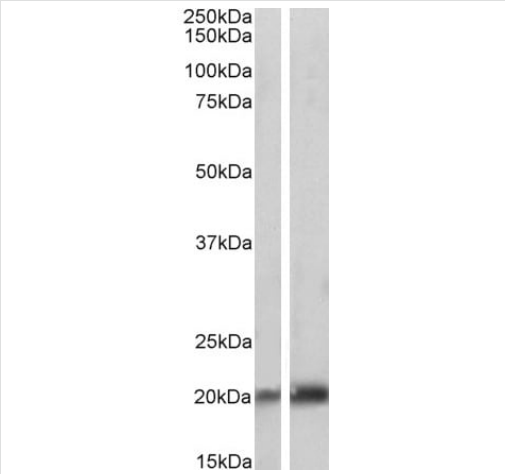
Function May act as a scaffolding protein within caveolar membranes. Interacts directly with G-protein alpha subunits and can functionally regulate their activity. May also regulate voltage-gated potassium channels. Plays a role in the sarcolemma repair mechanism of both skeletal muscle and cardiomyocytes that permits rapid resealing of membranes disrupted by mechanical stress.

Tissue specificity Expressed predominantly in muscle.

Involvement in disease Defects in CAV3 are the cause of limb-girdle muscular dystrophy type 1C (LGMD1C) [MIM:607801]. LGMD1C is a myopathy characterized by calf hypertrophy and mild to moderate proximal muscle weakness. LGMD1C inheritance can be autosomal dominant or recessive.
Defects in CAV3 are a cause of hyperCKmia (HYPCK) [MIM:123320]. It is a disease characterized by persistent elevated levels of serum creatine kinase without muscle weakness.
Defects in CAV3 are a cause of rippling muscle disease (RMD) [MIM:606072]. RMD is a rare disorder characterized by mechanically triggered contractions of skeletal muscle. In RMD, mechanical stimulation leads to electrically silent muscle contractions that spread to neighboring fibers that cause visible ripples to move over the muscle.
Defects in CAV3 are a cause of cardiomyopathy familial hypertrophic (CMH) [MIM:192600]; also designated FHC or HCM. Familial hypertrophic cardiomyopathy is a hereditary heart disorder characterized by ventricular hypertrophy, which is usually asymmetric and often involves the interventricular septum. The symptoms include dyspnea, syncope, collapse, palpitations, and chest pain. They can be readily provoked by exercise. The disorder has inter- and intrafamilial variability ranging from benign to malignant forms with high risk of cardiac failure and sudden cardiac death.
Defects in CAV3 are the cause of long QT syndrome type 9 (LQT9) [MIM:611818]. Long QT syndromes are heart disorders characterized by a prolonged QT interval on the ECG and polymorphic ventricular arrhythmias. They cause syncope and sudden death in response to excercise or emotional stress. They can present with a sentinel event of sudden cardiac death in infancy.
Defects in CAV3 can be a cause of sudden infant death syndrome (SIDS) [MIM:272120]. SIDS is

	the sudden death of an infant younger than 1 year that remains unexplained after a thorough case investigation, including performance of a complete autopsy, examination of the death scene, and review of clinical history. Pathophysiologic mechanisms for SIDS may include respiratory dysfunction, cardiac dysrhythmias, cardiorespiratory instability, and inborn errors of metabolism, but definitive pathogenic mechanisms precipitating an infant sudden death remain elusive. Long QT syndromes-associated mutations can be responsible for some SIDS cases.
Sequence similarities	Belongs to the caveolin family.
Cellular localization	Golgi apparatus membrane. Cell membrane. Membrane > caveola. Potential hairpin-like structure in the membrane. Membrane protein of caveolae.

Images



Western blot - Anti-Caveolin-3 antibody (ab87770)

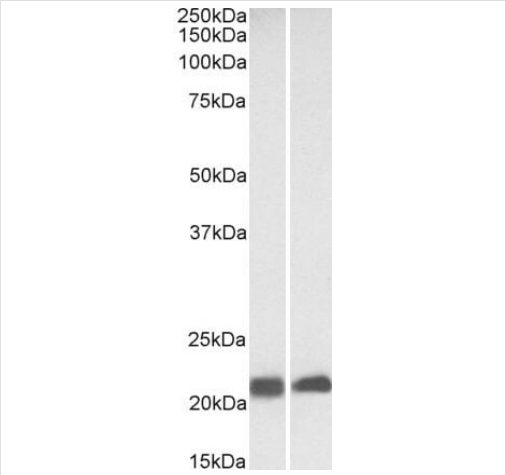
All lanes : Anti-Caveolin-3 antibody (ab87770) at 0.1 µg/ml

Lane 1 : pig skeletal muscle tissue lysate
Lane 2 : pig heart tissue lysate

Lysates/proteins at 35 µg per lane.

Predicted band size: 17 kDa
Observed band size: 20 kDa

Detected by chemiluminescence.



Western blot - Anti-Caveolin-3 antibody (ab87770)

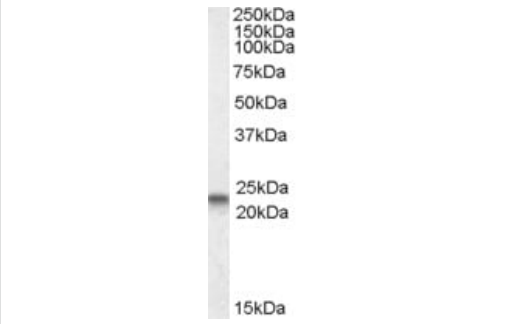
All lanes : Anti-Caveolin-3 antibody (ab87770) at 0.3 µg/ml

Lane 1 : mouse heart tissue lysate
Lane 2 : rat heart tissue lysate

Lysates/proteins at 35 µg per lane.

Predicted band size: 17 kDa
Observed band size: 20 kDa

Detected by chemiluminescence.



Western blot - Anti-Caveolin-3 antibody (ab87770)

Anti-Caveolin-3 antibody (ab87770) at 0.3 µg/ml + human heart lysate in RIPA buffer at 35 µg

Developed using the ECL technique.

Predicted band size: 17 kDa
Observed band size: 23 kDa

Exposure time: 1 hour

Detected by chemiluminescence.

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