Datasheet for ABIN7043861

anti-TMEM38A antibody (Intracellular)

3 Images

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Overview

Quantity:	50 µL
Target:	TMEM38A
Binding Specificity:	AA 259-274, Intracellular
Reactivity:	Rat
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This TMEM38A antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (IHC), Immunochromatography (IC)

Product Details

Purpose:	A Rabbit Polyclonal Antibody to TRIC-A Channel
Immunogen:	Immunogen: Synthetic peptide Immunogen Sequence: (C)DNHGAPHGMGLGTQHS, corresponding to amino acid residues 259-274 of rat TRIC-A
Isotype:	IgG
Specificity:	Intracellular, C-terminus
Cross-Reactivity:	Mouse, Rat
Predicted Reactivity:	Mouse - identical, human - will not recognize human TRIC-A
Characteristics:	Anti-TRIC-A (TMEM38A) Antibody (ABIN7043861 and ABIN7045315)) is a highly specific antibody directed against an epitope of the rat protein. The antibody can be used in western

Product Details

	blot, immunohistochemistry, and immunocytochemistry applications. It has been designed to recognize TRIC-A from rat and mouse samples. The antibody is not suited to recognize TRIC-A from human samples.
Purification:	Affinity purified on immobilized antigen.

Target Details

Target:	TMEM38A
Alternative Name:	TMEM38A (TMEM38A Products)
Background:	Trimeric intracellular cation channel type A, 27 kDa sarcoplasmic reticulum protein, Transmembrane protein 38A,Intracellular Ca2+ levels are important in proper cellular functions and have prominent roles in various cell signaling pathways and are crucial for muscle contractions. Indeed, an important step leading to muscle contraction is the massive release of Ca2+ ions from the endoplasmic/sarcoplasmic reticulum (ER/SR) to the cytosol. A battery of results suggest that specific K+ channels are important to counteract the Ca2+ outflow in order to neutralize the negative potential created by the movement of Ca2+ ions. It is believed that TRIC channels are responsible for neutralizing this negative potential1,2.Trimeric intracellular cation-specific (TRIC) channels are critical for proper management of intracellular stores. TRIC-A and TRIC-B both belong to this family and are both permeable to monovalent ions with a preference for K+ 3. Both channels are localized to the ER/SR membrane. Each TRIC subunit contains three transmembrane domains, a cytoplasmic C-terminus and a luminal N-terminus. Functional entities are formed by homotrimerizarion4. The activity of TRIC-A is regulated by voltage whereas that of TRIC-B can be regulated by different mechanisms3.Knockout studies of these channels have shown that TRIC-A knockout mice are viable while those of TRIC-B die at the neonatal stage5.TRIC-A is mostly expressed in excitable tissues like the brain and muscle while TRIC-B is ubiquitously expressed. Alternative names: TRIC-A (TMEM38A), Trimeric intracellular cation channel type A, 27 kDa sarcoplasmic reticulum protein, Transmembrane protein 38A
Gene ID:	306327
NCBI Accession:	NM_024074
UniProt:	A6ZIQ8

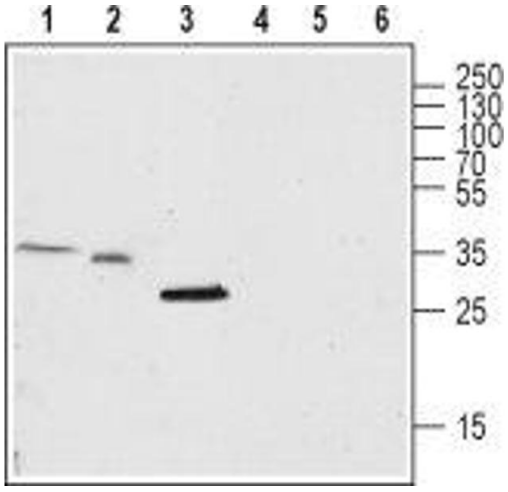
Application Details

Application Notes:	Antigen preadsorption control: 1 µg peptide per 1 µg antibody Application Dilutions Immunohistochemistry paraffin embedded sections ihc: N/A Application Dilutions Western blot wb: 1:200
Comment:	Cited Application: IHC Negative Control: BLP-TC002 Blocking Peptide: BLP-TC002
Restrictions:	For Research Use only

Handling

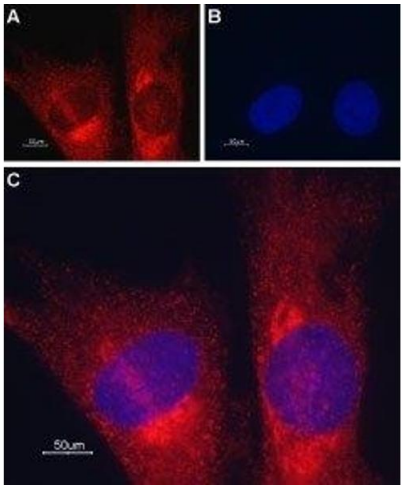
Format:	Lyophilized
Reconstitution:	0.2 mL double distilled water (DDW).
Concentration:	1 mg/mL
Buffer:	PBS pH 7.4
Storage:	4 °C,-20 °C
Storage Comment:	Storage before reconstitution: The antibody ships as a lyophilized powder at room temperature. Upon arrival, it should be stored at -20°C. Storage after reconstitution: The reconstituted solution can be stored at 4°C for up to 1 week. For longer periods, small aliquots should be stored at -20°C. Avoid multiple freezing and thawing. Centrifuge all antibody preparations before use (10000 x g 5 min).

Images



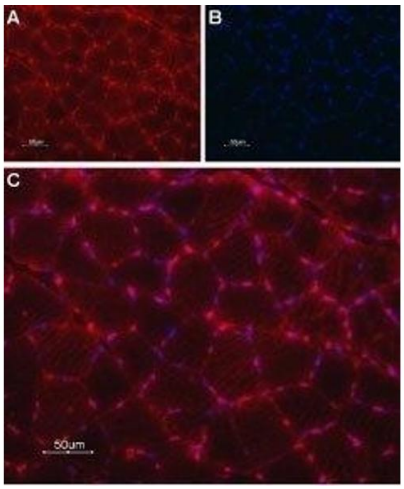
Western Blotting

Image 1. Western blot analysis of rat brain lysate (lanes 1 and 4), and mouse brain membrane (lanes 2 and 5) and skeletal muscle (lanes 3 and 6): - 1-3. Anti-TRIC-A (TMEM38A) Antibody (ABIN7043861 and ABIN7045315), (1:200).4-6. Anti-TRIC-A (TMEM38A) Antibody, preincubated with TRIC-A/TMEM38A Blocking Peptide (#BLP-TC002).



Immunocytochemistry

Image 2. Expression of TRIC-A in mouse muscle myoblast (C2C12) cell line - Immunocytochemical staining of mouse paraformaldehyde-fixed and permeabilized muscle myoblast (C2C12) cell line. A. Cells were stained with Anti-TRIC-A (TMEM38A) Antibody (ABIN7043861 and ABIN7045315), (1:200) followed by goat anti-rabbit-AlexaFluor-594 secondary antibody (red). B. Nuclear staining using DAPI as the counterstain (blue). C. Merged images of panels A and B.



Immunohistochemistry

Image 3. Expression of TRIC-A in rat skeletal muscle - Immunohistochemical staining of paraffin-embedded rat skeletal muscle sections using Anti-TRIC-A (TMEM38A) Antibody (ABIN7043861 and ABIN7045315), followed by goat anti-rabbit-AlexaFluor-594 secondary antibody. A. TRIC-A labeling (red) appears in the edges of the muscle fibers, where the endomysium is present. B. Nuclear staining using DAPI as the counterstain. C. Merged images of A and B.