Datasheet for ABIN7043002

anti-CACNA1D antibody (Extracellular)

4 Images

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Overview

Quantity:	25 µL
Target:	CACNA1D
Binding Specificity:	AA 215-227, Extracellular
Reactivity:	Rat
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This CACNA1D antibody is un-conjugated
Application:	Immunohistochemistry (IHC), Western Blotting (WB), Immunofluorescence (IF), Immunofluorescence (Cultured Cells) (IF (cc)), Immunochromatography (IC), Live Cell Imaging (LCI)

Product Details

Purpose:	A Rabbit Polyclonal Antibody to CaV1.3 (CACNA1D) Channel
Immunogen:	Immunogen: Synthetic peptide Immunogen Sequence: (C)EQLTKETEGGNHS, corresponding to amino acid residues 215-227 of rat CaV1.3
Isotype:	IgG
Specificity:	2nd extracellular loop, repeat I
Cross-Reactivity:	Human, Mouse, Rat
Predicted Reactivity:	Mouse,human - identical

Product Details

Characteristics:	Anti-Cav1.3 (CACNA1D) (extracellular) Antibody is directed against an extracellular epitope of the rat protein. Anti-CaV1.3 (CACNA1D) (extracellular) Antibody (ABIN7043002, ABIN7044105 and ABIN7044106)) can be used in western blot and immunohistochemistry and live cell imaging applications. It is specially suited to detect CaV1.3 channel in live cells. It has been designed to recognize CaV1.3 from mouse, rat and human samples.
Purification:	Affinity purified on immobilized antigen.

Target Details

Target:	CACNA1D
Alternative Name:	CACNA1D (CACNA1D Products)
Background:	Voltage-dependent L-type calcium channel subunit α1D,All L-type calcium channels are encoded by one of the CaV1 channel genes. These channels play a major role as a Ca2+ entry pathway in skeletal cardiac and smooth muscles as well as in neurons, endocrine cells and possibly in non-excitable cells such as hematopoetic and epithelial cells. All CaV1 channels are influenced by dihydropyridines (DHP) and are also referred to as DHP receptors. While the CaV1.1 and CaV1.4 isoforms are expressed in restricted tissues (skeletal muscle and retina, respectively), the expression of CaV1.2 is ubiquitous.1,2The CaV1.3 channels are also expressed, as are other L-type channels, in neurons and neuroendocrine cells. However, accumulated data has shown the expression of CaV1.3 in heart and suggests that it plays a major role in the generation of cardiac pacemaker activity.3,4Several peptidyl toxins have been described that are specific L-type channel blockers. These include the Mamba toxins Calcicludine (#SPC-650), Calciseptine (#C-500) and FS-2 (#F-700). So far no selective blocker for one of the CaV1 isoforms has been described. Alternative names: CaV1.3 (CACNA1D), Voltage-dependent L-type calcium channel subunit alpha1D
Gene ID:	29716
NCBI Accession:	NM_000720
UniProt:	P27732
Pathways:	Sensory Perception of Sound

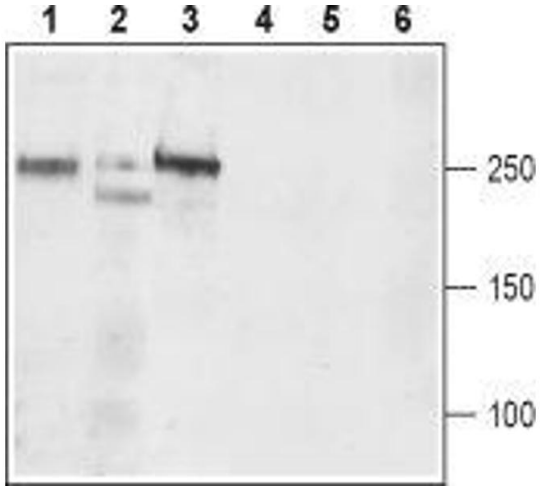
Application Details

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: IFC Negative Control: BLP-CC311 Blocking Peptide: BLP-CC311
Restrictions:	For Research Use only

Handling

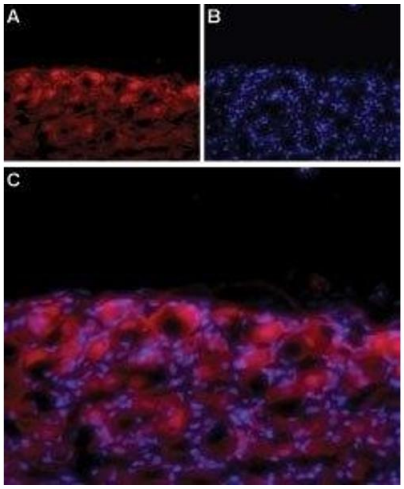
Format:	Lyophilized
Reconstitution:	0.2 mL double distilled water (DDW).
Concentration:	1 mg/mL
Buffer:	PBS pH 7.4
Storage:	4 °C,-20 °C
Storage Comment:	Storage before reconstitution: The antibody ships as a lyophilized powder at room temperature. Upon arrival, it should be stored at -20°C. Storage after 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



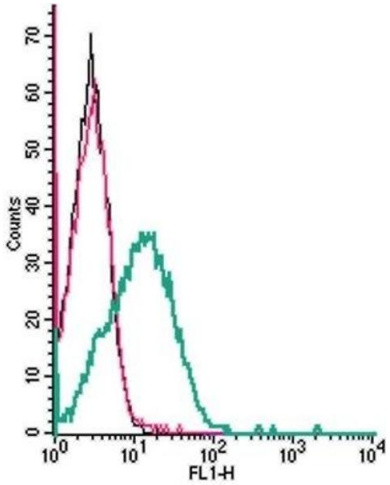
Western Blotting

Image 1. Western blot analysis of rat brain (lanes 1 and 4), mouse brain (lanes 2 and 5), and rat C6 brain Glioma (lanes 3 and 6) lysates: - 1-3. Anti-CaV1.3 (CACNA1D) (extracellular) Antibody (ABIN7043002, ABIN7044105 and ABIN7044106), (1:200).4-6. Anti-CaV1.3 (CACNA1D) (extracellular) Antibody, preincubated with Cav1.3/CACNA1D (extracellular) Blocking Peptide (#BLP-CC311).



Immunohistochemistry

Image 2. Expression of CaV1.3 in rat DRG - Immunohistochemical staining of adult rat dorsal root ganglion (DRG) using Anti-CaV1.3 (CACNA1D) (extracellular) Antibody (ABIN7043002, ABIN7044105 and ABIN7044106). A. CaV1.3 labeling (red) appears in the cell bodies of the DRG. B. Nuclear staining using DAPI as the counterstain. C. Merged image of A and B.



Flow Cytometry

Image 3. Cell surface detection of Cav1.3 by indirect flow cytometry in live intact human Jurkat T-cell leukemia cells: (black line) Cells.(red line) Cells + goat-anti-rabbit-FITC.(green line) Cells + Anti-CaV1.3 (CACNA1D) (extracellular) Antibody (ABIN7043002, ABIN7044105 and ABIN7044106), (5 µg) + goat-anti-rabbit-FITC.

Please check the product details page for more images. Overall 4 images are available for ABIN7043002.