Datasheet for ABIN7043501

anti-KCNQ1 antibody (Extracellular)

3 Images

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Overview

Quantity:	25 µL
Target:	KCNQ1
Binding Specificity:	AA 284-297, Extracellular
Reactivity:	Rat
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This KCNQ1 antibody is un-conjugated
Application:	Western Blotting (WB), Immunofluorescence (IF), Flow Cytometry (FACS), Immunochromatography (IC), Live Cell Imaging (LCI)

Product Details

Purpose:	A Rabbit Polyclonal Antibody to KCNQ1 (KV7.1) Channel
Immunogen:	Immunogen: Synthetic peptide Immunogen Sequence: (C)EKDAVNESGRIEFG, corresponding to amino acid residues 284-297 of rat KCNQ1
Isotype:	IgG
Specificity:	3rd extracellular loop
Cross-Reactivity:	Human, Mouse, Rat
Predicted Reactivity:	Mouse - identical, human - 13,14 amino acid residues identical
Characteristics:	Anti-KCNQ1 (extracellular) Antibody is directed against an extracellular epitope of rat KCNQ1

Product Details

	(KV7.1). Anti-KCNQ1 (extracellular) Antibody (ABIN7043501, ABIN7045068 and ABIN7045069) can be used in western blot and live cell imaging applications. It has been designed to recognize KCNQ1 from rat, human and mouse samples.
Purification:	Affinity purified on immobilized antigen.

Target Details

Target:	KCNQ1
Alternative Name:	KCNQ1 (KCNQ1 Products)
Background:	KV7.1, Voltage-gated potassium channel QKT subfamily member 1, KvLQT1, KCNA9,KCNQ1 (KV7.1) is part of a voltage-gated K+ family that includes 5 other members (KCNQ1-5). The channel has been intensively studied since it was found that together with MinK (Isk) it underlay the cardiac Iks current that controls the duration of the action potential of the human heart. Indeed mutations on either KV7.1 or MinK can be responsible for long QT syndrome, a cardiac disorder that causes arrhythmias and sudden death. Although KV7.1 expression and function has been mainly investigated in relation with cardiac function the channel is widely distributed in epithelial tissues. There it has been implicated in physiological functions such as: regulation of acid secretion in the stomach and Cl- secretion into the colon. Alternative names: KCNQ1, KV7.1, Voltage-gated potassium channel QKT subfamily member 1, KCNA9, KvLQT1
Gene ID:	84020
NCBI Accession:	NM_000218
UniProt:	Q9Z0N7
Pathways:	Negative Regulation of Hormone Secretion, 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: IP Negative Control: (ABIN7236441) Blocking Peptide: (ABIN7236441)

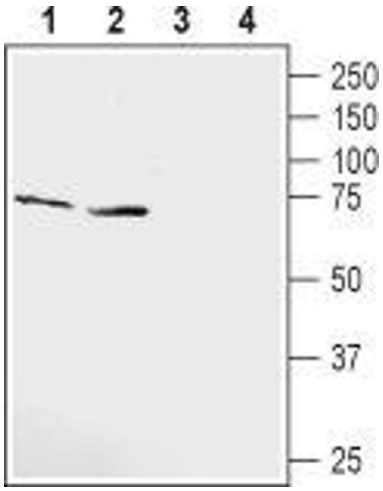
Application Details

Restrictions:	For Research Use only

Handling

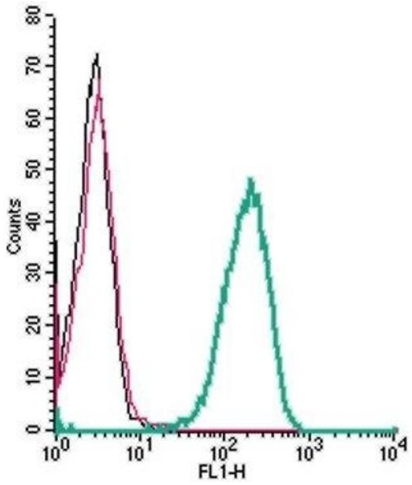
Format:	Lyophilized
Reconstitution:	0.2 mL double distilled water (DDW).
Concentration:	1 mg/mL
Buffer:	PBS pH 7.4
Storage:	4 °C,-20 °C
Storage Comment:	Storage before reconstitution: The antibody ships as a lyophilized powder at room temperature. Upon arrival, it should be stored at -20°C. Storage after 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 heart lysate (lanes 1 and 3) and mouse heart lysate (lanes 2 and 4): - 1,2. Anti-KCNQ1 (extracellular) Antibody (ABIN7043501, ABIN7045068 and ABIN7045069), (1:200).3,4. Anti-KCNQ1 (extracellular) Antibody, preincubated with KCNQ1 (extracellular) Blocking Peptide (#BLP-PC168).



Flow Cytometry

Image 2. Cell surface detection of KCNQ1 by indirect flow cytometry in live intact human THP-1 monocytic leukemia cells: (black line) Cells.(red line) Cells + goat-anti-rabbit-FITC.(green line) Cells + Anti-KCNQ1 (extracellular) Antibody (ABIN7043501, ABIN7045068 and ABIN7045069), (2.5 µg) + goat-anti-rabbit-FITC.

Immunocytochemistry

Image 3. Expression of KCNQ1 in Human COLO-205 cells - Cell surface detection of KCNQ1 in live intact human COLO-205 colon adenocarcinoma cells. A. Extracellular staining of cells with Anti-KCNQ1 (extracellular) Antibody (ABIN7043501, ABIN7045068 and ABIN7045069), (1:50), followed by goat anti-rabbit-AlexaFluor-488 secondary antibody (green). B. Live view of the cells. C. Merge of A and B.