

Datasheet for ABIN7043463

anti-KCNN4 antibody (Extracellular) (Atto 488)



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1 Image

Overview

Quantity:	50 µg
Target:	KCNN4
Binding Specificity:	Extracellular
Reactivity:	Human
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This KCNN4 antibody is conjugated to Atto 488
Application:	Immunofluorescence (IF), Flow Cytometry (FACS), Live Cell Imaging (LCI), Immunochromatography (IC)

Product Details

Purpose:	A Mouse Monoclonal Antibody to KCNN4 (KCa3.1, SK4) Channel Conjugated to the Fluorescent Dye ATTO-488
Immunogen:	Immunogen: Synthetic peptide Immunogen Sequence: Synthetic mapping to the 3rd extracellular loop of human KCNN4
Clone:	6C1
Isotype:	IgM
Specificity:	Extracellular loop
Cross-Reactivity:	Human, Mouse, Rat
Predicted Reactivity:	Recognizes KCNN4 from human, rat, and mouse samples

Product Details

Characteristics: Mouse Anti-KCNN4 (KCa3.1, SK4) (extracellular) Antibody (ABIN7043462 and ABIN7044556) is a highly specific monoclonal antibody directed against an epitope of the human channel. The antibody can be used in western blot, immunocytochemistry, immunohistochemistry, and indirect flow cytometry applications. It has been designed to recognize KCNN4 from human, rat, and mouse samples. \nMouse Anti-KCNN4 (KCa3.1, SK4) (extracellular)-ATTO Fluor-488 Antibody (ABIN7043463) is directly labeled with an fluorescent dye. ATTO dyes are characterized by strong absorption (high extinction coefficient), high fluorescence quantum yield, and high photo-stability. The label is analogous to the well known dye fluorescein isothiocyanate (FITC) and can be used with filters typically used to detect FITC. Mouse Anti-KCNN4 (KCa3.1, SK4) (extracellular)-ATTO Fluor-488 Antibody has been tested in live cell imaging applications and is especially suited for experiments requiring simultaneous labeling of different markers.

Purification: Affinity purified on immobilized antigen.

Target Details

Target: KCNN4

Alternative Name: KCNN4 ([KCNN4 Products](#))

Background: IKCa1, IK1, Intermediate conductance Ca²⁺-activated K⁺ channel protein 4, Gardos channel, KCa3.1 (KCNN4, SK4) is a member of the Ca²⁺ activated K⁺ channel family that shares the characteristic of being activated by intracellular Ca²⁺. The channel has an intermediate conductance, is voltage insensitive and is activated by Ca²⁺ in the submicromolar range. The channel has a similar topology to that of KV channels, that is, six transmembrane domains and intracellular N- and C-termini. KCa3.1 is widely expressed in epithelial, endothelial and cells of hematopoietic origin. In erythrocytes (red blood cells) it has been identified as the molecular correlate of the so-called Gardos channel. The functional role of the channel is to set the cell membrane potential at negative values so as to aid in the electrochemical transport of other ions such as Cl⁻ and Ca²⁺. Indeed, KCa3.1 has a key role in sustaining the Ca²⁺ influx in activated T lymphocytes and in regulating Cl⁻ secretion from colon epithelium. Therefore, specific blockers of the KCa3.1 channel have been proposed for the treatment of several diseases including autoimmune diseases, secretory diarrhea and sickle cell anemia.

Alternative names: KCNN4 (KCa3.1, SK4), IKCa1, IK1, Intermediate conductance Ca²⁺-activated K⁺ channel protein 4, Gardos channel

Gene ID: 3783

Target Details

NCBI Accession: [NM_002250](#)

UniProt: [O15554](#)

Application Details

Application Notes: Antigen preadsorption control: NA
Application Dilutions Immunohistochemistry paraffin embedded sections ihc: N/A
Application Dilutions Western blot wb: N/A

Restrictions: For Research Use only

Handling

Format: Lyophilized

Reconstitution: Reconstitute with double distilled water (DDW) to a concentration of 1.0 mg/mL.

Concentration: 1 mg/mL

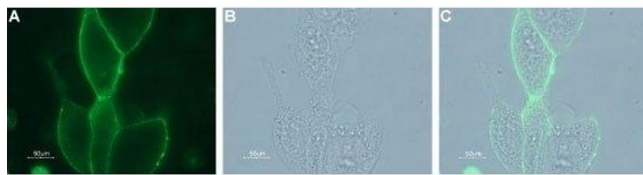
Buffer: PBS pH 7.4, 1 % BSA with 0.05 % sodium azide

Preservative: Sodium azide

Precaution of Use: This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.

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, protected from the light, 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).



Immunocytochemistry

Image 1. Expression of KCNN4 in live intact human LNCaP prostate carcinoma cells - Cell surface detection (green) of KCNN4 in live intact human LNCaP prostate carcinoma cells with Mouse Anti-KCNN4 (KCa3.1, SK4) (extracellular)-ATTO Fluor-488 Antibody (ABIN7043463), (1:15) (A). B. Live view of the cells. C. Merge of the two images.