Datasheet for ABIN1741486

anti-KCNK3 antibody (AA 251-411) (Atto 390)

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3 Images

Overview

Quantity:	100 µg
Target:	KCNK3
Binding Specificity:	AA 251-411
Reactivity:	Rat
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This KCNK3 antibody is conjugated to Atto 390
Application:	Western Blotting (WB), Immunohistochemistry (IHC), Immunocytochemistry (ICC), Immunofluorescence (IF)

Product Details

Immunogen:	Fusion protein amino acids 251-411 (cytoplasmic C-terminus) of rat Acid-sensitive potassium channel protein TASK or TASK1. Mouse: 96% identity (156/161 amino acids identical). Human: 76% identity (163/161 amino acids identical). <30% identity with TASK3.
Clone:	S374-48
Isotype:	IgG2b
Specificity:	Detects ~50 kDa. Does not cross-react with TASK3.
Cross-Reactivity:	Human, Mouse, Rat
Purification:	Protein G Purified

Target Details

Target:	KCNK3
Alternative Name:	KCNK3 (KCNK3 Products)
Background:	K+ channels are divided into three subclasses reflecting the number of transmembrane segments (TMS), which are designated 6TMS, 4TMS and 2TMS. Members of the 4TMS class contain two distinct pore regions and include TWIK, TREK, TRAAK and TASK. TASK channels are highly sensitive to external pH in the physiological range. TASK-1 is expressed in brain and in rat heart, with high levels of expression in the right atrium. TASK-2, mainly expressed in kidney, is localized in cortical distal tubules and collecting ducts, suggesting a role in renal K+ transport. TASK-3 from rat cerebellum shares 54 % identity with TASK-1, but less than 30 % identity with TASK-2 and other tandem pore K+ channels.
Gene ID:	29553
NCBI Accession:	NP_203694
UniProt:	O54912

Application Details

Application Notes:	• WB (1:1000) • ICC/IF (1:100) • optimal dilutions for assays should be determined by the user.
Comment:	1 µg/ml of ABIN1741486 was sufficient for detection of TASK1 Potassium Channel in 20 µg of rat brain lysate by colorimetric immunoblot analysis using Goat anti-mouse IgG:HRP as the secondary antibody.
Restrictions:	For Research Use only

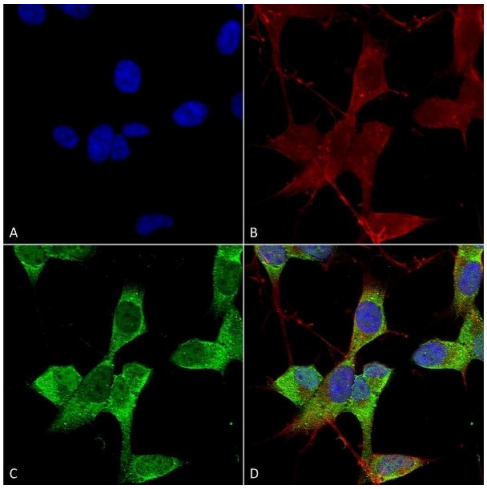
Handling

Format:	Liquid
Concentration:	1 mg/mL
Buffer:	PBS pH 7.4, 50 % glycerol, 0.1 % sodium azide, Storage buffer may change when conjugated
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

Handling

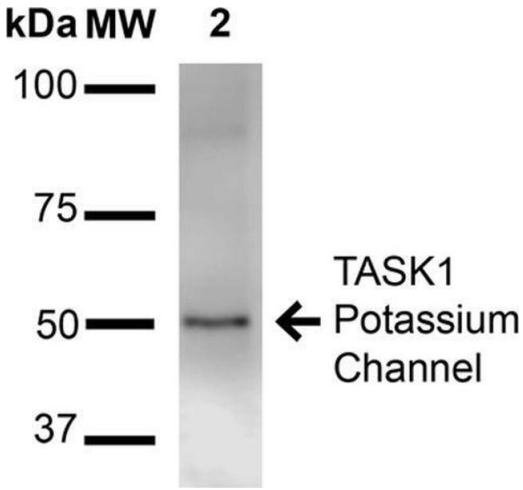
Storage Comment:	Conjugated antibodies should be stored at 4°C

Images



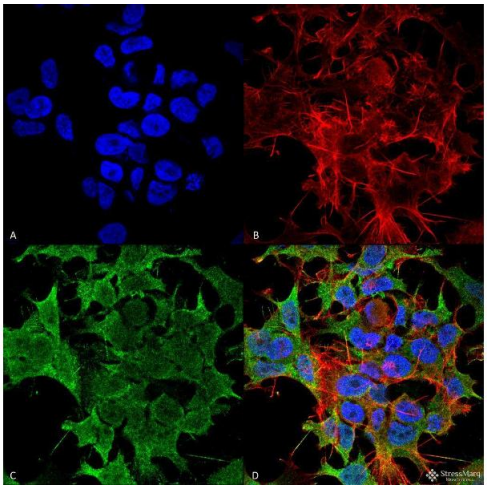
Immunocytochemistry

Image 1. Immunocytochemistry/Immunofluorescence analysis using Mouse Anti-TASK1 Potassium Channel Monoclonal Antibody, Clone S374-48 (ABIN1741486). Tissue: Neuroblastoma cells (SH-SY5Y). Species: Human. Fixation: 4 % PFA for 15 min. Primary Antibody: Mouse Anti-TASK1 Potassium Channel Monoclonal Antibody (ABIN1741486) at 1:50 for overnight at 4 °C with slow rocking. Secondary Antibody: AlexaFluor 488 at 1:1000 for 1 hour at RT. Counterstain: Phalloidin-iFluor 647 (red) F-Actin stain, Hoechst (blue) nuclear stain at 1:800, 1.6 mM for 20 min at RT. (A) Hoechst (blue) nuclear stain. (B) Phalloidin-iFluor 647 (red) F-Actin stain. (C) TASK1 Potassium Channel Antibody (D) Composite.



Western Blotting

Image 2. Western Blot analysis of Rat Brain Membrane showing detection of ~50 kDa TASK1 Potassium Channel protein using Mouse Anti-TASK1 Potassium Channel Monoclonal Antibody, Clone S374-48 . Lane 1: Molecular Weight Ladder (MW). Lane 2: Rat brain membrane. Load: 15 µg. Block: 2% BSA and 2% Skim Milk in 1X TBST. Primary Antibody: Mouse Anti-TASK1 Potassium Channel Monoclonal Antibody at 1:1000 for 16 hours at 4°C. Secondary Antibody: Goat Anti-Mouse IgG: HRP at 1:2000 for 60 min at RT. Color Development: ECL solution for 6 min at RT. Predicted/Observed Size: ~50 kDa.



Immunofluorescence (fixed cells)

Image 3. Immunocytochemistry/Immunofluorescence analysis using Mouse Anti-TASK1 Potassium Channel Monoclonal Antibody, Clone S374-48 . Tissue: Neuroblastoma cell line (SK-N-BE). Species: Human. Fixation: 4% Formaldehyde for 15 min at RT. Primary Antibody: Mouse Anti-TASK1 Potassium Channel Monoclonal Antibody at 1:100 for 60 min at RT. Secondary Antibody: Goat Anti-Mouse ATTO 488 at 1:100 for 60 min at RT. Counterstain: Phalloidin Texas Red F-Actin stain; DAPI (blue) nuclear stain at 1:1000, 1:5000 for 60min RT, 5min RT. Localization: Membrane. Magnification: 60X. (A) DAPI (blue) nuclear stain (B) Phalloidin Texas Red F-Actin stain (C) TASK1 Potassium Channel Antibody (D) Composite.