

Product Datasheet

Anti-Kv4.2 K⁺ Channel Antibody FL550 Conjugate

Overview

Catalog #	75-016-FL550
Conjugate	FL550 Ex: 550 nm, Em: 575 nm
Isotype	IgG1
Clone Number	K57/1
Size	200 µL
Concentration	0.5 mg/mL
Host Species	Mouse Monoclonal
Format	Purified by Protein A chromatography
Buffer	PBS with 0.09% azide
Applications	ICC, IHC
Species Reactivity	Human, Mouse, and Rat
Immunogen	Synthetic peptide amino acids 209 –225 (extracellular S1-S2 loop) of rat Kv4.2 (CGSSPGHIKELPSGERY; accession number Q63881)
Molecular Weight	75-80 kDa
Cite this Antibody	Antibodies Inc Cat# 75-016-FL550, RRID: AB_2939125

Details

Target Description	Kv4.2 K ⁺ channel (Potassium voltage-gated channel subfamily D member 2) is a member of the mammalian Shal-related family and potassium voltage gated channel subunit family. Kv4 subunit family includes four Kv4 α subunits (Kv4.1, Kv4.2 and Kv4.3). However only Kv4.2 and Kv4.3 are predominantly expressed in the brain (Alfaro-Ruiz et al., 2019). Kv4.2 K ⁺ is encoded by gene KCND2 in human. It helps to regulate the action potential's circadian rhythm firing in suprachiasmatic nucleus neurons. This process regulates the circadian rhythm of locomotor activity. It has been demonstrated that Kv 4.2 and Kv4.3 are often colocalized with pain-modulating molecules in rat spinal lamina II excitatory interneurons (Huang et al., 2005).
Specificity	No cross reactivity against rat Kv4.3
Purification Method	Produced by in vitro bioreactor culture of hybridoma line followed by Protein A affinity chromatography and conjugation of purified mAb. Purified mAbs are >90% specific antibody.
Quality Control Tests	Each new lot of antibody is quality control tested by western blot on rat whole brain lysate and confirmed to stain the expected molecular weight band.

Storage

Aliquot and store at $\leq -20^{\circ}\text{C}$ for long term storage. For short term storage, store at $2-8^{\circ}\text{C}$. For maximum recovery of product, centrifuge the vial prior to removing the cap.

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