

## Product Datasheet

Anti-Kv2.1 K<sup>+</sup> Channel Antibody FL490 Conjugate

## Overview

<b>Catalog #</b>	75-014-FL490
<b>Conjugate</b>	FL490 Ex: 491 nm, Em: 515 nm
<b>Isotype</b>	IgG1
<b>Clone Number</b>	K89/34
<b>Size</b>	200 µL
<b>Concentration</b>	0.5 mg/mL
<b>Host Species</b>	Mouse Monoclonal
<b>Format</b>	Purified by Protein A chromatography
<b>Buffer</b>	PBS with 0.09% azide
<b>Applications</b>	ICC, IHC
<b>Species Reactivity</b>	Human, Mouse, and Rat
<b>Immunogen</b>	Synthetic peptide amino acids 837-853 (HMLPGGGAHGSTRDQSI, cytoplasmic Cterminus) of rat Kv2.1 (accession number P15387)
<b>Molecular Weight</b>	105-125 kDa (varies with cell background due to phosphorylation)
<b>Cite this Antibody</b>	Antibodies Inc Cat# 75-014-FL490, RRID: AB_2939116

## Details

<b>Target Description</b>	Kv 2.1 K <sup>+</sup> channel (Potassium voltage-gated channel subfamily B member 1), which is encoded by KCNB1 gene, is a member of the Potassium voltage-gated channel family. This protein, mainly expressed in the central nervous system, functions as a delayed rectifier. Indeed, it regulates the action potential (AP) repolarization as well as duration and frequency of repetitive AP firing in neurons, muscle cells and endocrine cells. Kv2.1 K <sup>+</sup> channel switches between open or closed conformation in response to the voltage difference across the membrane. This process directs the voltage-dependent potassium ion permeability of excitable membranes, which lets potassium ions pass in accordance with their electrochemical gradient. Kv2.1 K <sup>+</sup> channel is widely used as a marker to measure membrane excitability in hippocampal neurons.
<b>Specificity</b>	No cross-reactivity against rat Kv2.2
<b>Purification Method</b>	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.

**Our Guarantee**

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As an original manufacturer, we are dedicated to creating quality and reproducible antibodies that further your research. We provide personalized customer support from the scientists that made the antibody and offer a free replacement or 100% refund if we cannot resolve an issue. Order today and experience our 50+ year passion for science.

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