

Anti-KCNQ5 Antibody
Catalog # ABO11608**Specification**

Anti-KCNQ5 Antibody - Product Information

Application	WB
Primary Accession	Q9NR82
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized

Description

Rabbit IgG polyclonal antibody for Potassium voltage-gated channel subfamily KQT member 5(KCNQ5) detection. Tested with WB in Human;Mouse;Rat.

Reconstitution

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-KCNQ5 Antibody - Additional Information

Gene ID 56479

Other Names

Potassium voltage-gated channel subfamily KQT member 5, KQT-like 5, Potassium channel subunit alpha KvLQT5, Voltage-gated potassium channel subunit Kv7.5, KCNQ5

Calculated MW

102179 MW KDa

Application Details

Western blot, 0.1-0.5 µg/ml, Human, Mouse, Rat

Subcellular Localization

Membrane; Multi-pass membrane protein.

Tissue Specificity

Strongly expressed in brain and skeletal muscle. In brain, expressed in cerebral cortex, occipital pole, frontal lobe and temporal lobe. Lower levels in hippocampus and putamen. Low to undetectable levels in medulla, cerebellum and thalamus.

Protein Name

Potassium voltage-gated channel subfamily KQT member 5

Contents

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na₂HPO₄, 0.05mg Thimerosal, 0.05mg NaN₃.

Immunogen

A synthetic peptide corresponding to a sequence at the C-terminus of human KCNQ5(619-633aa KLDCLLDIYQQVLRK), identical to the related mouse and rat sequences.

Purification

Immunogen affinity purified.

Cross Reactivity

No cross reactivity with other proteins

Storage

At -20°C for one year. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for a longer time. Avoid repeated freezing and thawing.

Sequence Similarities

Belongs to the potassium channel family. KQT (TC 1.A.1.15) subfamily. Kv7.5/KCNQ5 sub-subfamily.

Anti-KCNQ5 Antibody - Protein Information**Name** KCNQ5**Function**

Associates with KCNQ3 to form a potassium channel which contributes to M-type current, a slowly activating and deactivating potassium conductance which plays a critical role in determining the subthreshold electrical excitability of neurons. Therefore, it is important in the regulation of neuronal excitability. May contribute, with other potassium channels, to the molecular diversity of a heterogeneous population of M-channels, varying in kinetic and pharmacological properties, which underlie this physiologically important current. Insensitive to tetraethylammonium, but inhibited by barium, linopirdine and XE991. Activated by niflumic acid and the anticonvulsant retigabine. As the native M-channel, the potassium channel composed of KCNQ3 and KCNQ5 is also suppressed by activation of the muscarinic acetylcholine receptor CHRM1.

Cellular Location

Cell membrane; Multi-pass membrane protein

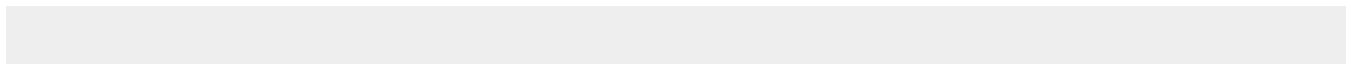
Tissue Location

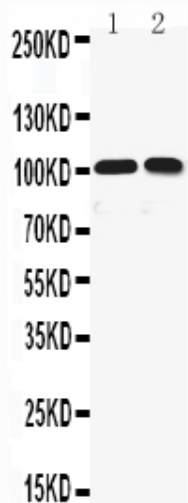
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Anti-KCNQ5 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Anti-KCNQ5 Antibody - Images



Anti-KCNQ5 antibody, ABO11608, All Western blotting
All lanes: Anti-KCNQ5(ABO11608) at 0.5ug/ml
Lane 1: Rat Brain Tissue Lysate at 40ug
Lane 2: Mouse Brain Tissue Lysate at 40ug
Predicted bind size: 102KD
Observed bind size: 102KD

Anti-KCNQ5 Antibody - Background

Potassium voltage-gated channel subfamily KQT member 5 is a protein that in humans is encoded by the KCNQ5 gene. This gene is a member of the KCNQ potassium channel gene family that is differentially expressed in subregions of the brain and in skeletal muscle. KCNQ5 is mapped to 6q13. The protein encoded by this gene yields currents that activate slowly with depolarization and can form heteromeric channels with the protein encoded by the KCNQ3 gene. Currents expressed from this protein have voltage dependences and inhibitor sensitivities in common with M-currents. They are also inhibited by M1 muscarinic receptor activation. KCNQ5 has been shown to interact with KvLQT3.