

KCNQ5 Antibody (C-Term)

Peptide-affinity purified goat antibody Catalog # AF2929a

Specification

KCNQ5 Antibody (C-Term) - Product Information

Application Primary Accession Other Accession

Predicted Host Clonality Concentration Isotype Calculated MW E <u>Q9NR82</u> <u>NP_062816.2</u>, <u>NP_001153602.1</u>, <u>NP_001153604.1</u>, <u>NP_1153605.1</u>, <u>NP_001153606.1</u>, <u>56479</u>, <u>226922 (mouse)</u>, <u>259273 (rat)</u> Human, Mouse, Rat, Pig, Dog Goat Polyclonal 0.5 mg/ml IgG 102179

KCNQ5 Antibody (C-Term) - 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

Dilution E~~N/A

Format 0.5 mg/ml in Tris saline, 0.02% sodium azide, pH7.3 with 0.5% bovine serum albumin

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions KCNQ5 Antibody (C-Term) is for research use only and not for use in diagnostic or therapeutic procedures.

KCNQ5 Antibody (C-Term) - Protein Information

Name KCNQ5 (<u>HGNC:6299</u>)

Function

Pore-forming subunit of the voltage-gated potassium (Kv) channel broadly expressed in brain and



involved in the regulation of neuronal excitability (PubMed:10787416, PubMed:10816588, PubMed:11159685, PubMed:28669405). Associates with KCNQ3/Kv7.3 pore- forming subunit 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 (PubMed:10816588, PubMed:11159685). Contributes, 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 (PubMed:10816588). Also forms a functional channel with KCNQ1/Kv7.1 subunit that may contribute to vasoconstriction and hypertension (PubMed:24855057). Channel may be selectively permeable in vitro to other cations besides potassium, in decreasing order of affinity K(+) = Rb(+) > Cs(+) > Na(+) (PubMed:10816588). Similar to the native M-channel, KCNQ3-KCNQ5 potassium channel is suppressed by activation of the muscarinic acetylcholine receptor CHRM1 (PubMed:10816588).

Cellular Location

Cell membrane; Multi-pass membrane protein

Tissue Location

Strongly expressed in brain and skeletal muscle (PubMed:10787416, PubMed:10816588). 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 (PubMed:10787416, PubMed:10816588)

KCNQ5 Antibody (C-Term) - Protocols

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

- <u>Western Blot</u>
- <u>Blocking Peptides</u>
- <u>Dot Blot</u>
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

KCNQ5 Antibody (C-Term) - Images

KCNQ5 Antibody (C-Term) - Background

This antibody is expected to cross-react with isoform 1, 2, 3, 4 and 5 (NP_062816.2; NP_001153602.1; NP_001153604.1; NP_1153605.1; NP_001153606.1).

KCNQ5 Antibody (C-Term) - References

Regulation of the voltage-gated K(+) channels KCNQ2/3 and KCNQ3/5 by serum- and glucocorticoid-regulated kinase-1. Schuetz F, Kumar S, Poronnik P, Adams DJ. Am J Physiol Cell Physiol. 2008 Jul;295(1):C73-80. PMID: 18463232