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Goat Anti-KCNQ4 Antibody

Peptide-affinity purified goat antibody
Catalog # AF1588a

Specification

Goat Anti-KCNQ4 Antibody - Product Information

Application	**WB**
Primary Accession	P56696
Other Accession	NP_751895, 9132
Reactivity	**Human**
Host	**Goat**
Clonality	**Polyclonal**
Concentration	**100ug/200ul**
Isotype	**IgG**
Calculated MW	**77101**

Goat Anti-KCNQ4 Antibody - Additional Information

Gene ID 9132

Other Names
Potassium voltage-gated channel subfamily KQT member 4, KQT-like 4, Potassium channel subunit alpha KvLQT4, Voltage-gated potassium channel subunit Kv7.4, KCNQ4

Format
0.5 mg IgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, 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
Goat Anti-KCNQ4 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Goat Anti-KCNQ4 Antibody - Protein Information

Name KCNQ4

Function
Probably important in the regulation of neuronal excitability. May underlie a potassium current involved in regulating the excitability of sensory cells of the cochlea. KCNQ4 channels are blocked by linopirdin, XE991 and bepridil, whereas clofilium is without significant effect. Muscarinic agonist oxotremorine-M strongly suppress KCNQ4 current in CHO cells in which cloned KCNQ4 channels were coexpressed with M1 muscarinic receptors.

Cellular Location
Basal cell membrane; Multi-pass membrane protein. Note=Situated at the basal membrane of cochlear outer hair cells

Tissue Location
Expressed in the outer, but not the inner, sensory hair cells of the cochlea. Slightly expressed in heart, brain and skeletal muscle

Goat Anti-KCNQ4 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 Cytomety
- Cell Culture

Goat Anti-KCNQ4 Antibody - Images

AF1588a (2 µg/ml) staining of Cerebellum lysate (35 µg protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.

Goat Anti-KCNQ4 Antibody - Background

The protein encoded by this gene forms a potassium channel that is thought to play a critical role in the regulation of neuronal excitability, particularly in sensory cells of the cochlea. The current generated by this channel is inhibited by M1 muscarinic acetylcholine receptors and activated by retigabine, a novel anti-convulsant drug. The encoded protein can form a homomultimeric potassium channel or possibly a heteromultimeric channel in association with the protein encoded by the KCNQ3 gene. Defects in this gene are a cause of nonsyndromic sensorineural deafness type 2 (DFNA2), an autosomal dominant form of progressive hearing loss. Two transcript variants encoding different isoforms have been found for this gene.

Goat Anti-KCNQ4 Antibody - References

DFNA2 Nonsyndromic Hearing Loss Smith RJH, et al. , 1993. PMID 20301388.
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American women. Ichikawa S, et al. J Bone Miner Res, 2010 Aug. PMID 20200978.
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