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KCNQ4 Polyclonal Antibody
Catalog # AP70642

Specification

KCNQ4 Polyclonal Antibody - Product Information

Application	**WB**
Primary Accession	P56696
Reactivity	**Human, Mouse**
Host	**Rabbit**
Clonality	**Polyclonal**

KCNQ4 Polyclonal Antibody - Additional Information

Gene ID 9132

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

Dilution
WB~~Western Blot: 1/500 - 1/2000. ELISA: 1/5000. Not yet tested in other applications.

Format
Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.

Storage Conditions
-20℃

KCNQ4 Polyclonal Antibody - Protein Information

Name KCNQ4 (HGNC:6298)

Function
Pore-forming subunit of the voltage-gated potassium (Kv) channel involved in the regulation of sensory cells excitability in the cochlea (PubMed:10025409, PubMed:34767770). KCNQ4/Kv7.4 channel is composed of 4 pore-forming subunits assembled as tetramers (PubMed:34767770). Promotes the outflow of potassium ions in the repolarization phase of action potential which plays a role in regulating membrane potential of excitable cells (PubMed:10025409, PubMed:11245603, PubMed:34767770). The channel conducts a slowly activating and deactivating current (PubMed:10025409, PubMed:11245603). Current often shows some inward rectification at positive potentials (PubMed:<a

href="http://www.uniprot.org/citations/10025409" target="_blank">10025409). Channel may be selectively permeable in vitro to other cations besides potassium, in decreasing order of affinity K(+) = Rb(+) > Cs(+) > Na(+) (PubMed:10025409). Important for normal physiological function of inner ear such as sensory perception of sound (PubMed:10025409, PubMed:10369879).

Cellular Location
Basal cell membrane {ECO:0000250|UniProtKB:Q9JK96}; Multi-pass membrane protein. Note=Situated at the basal membrane of cochlear outer hair cells. {ECO:0000250|UniProtKB:Q9JK96}

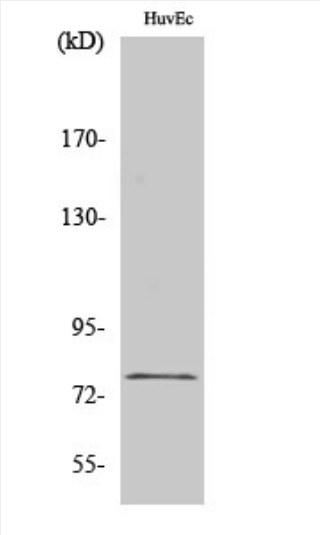
Tissue Location
Expressed in the outer, but not the inner, sensory hair cells of the cochlea (PubMed:10025409). Slightly expressed in heart, brain and skeletal muscle (PubMed:10025409)

KCNQ4 Polyclonal 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

KCNQ4 Polyclonal Antibody - Images



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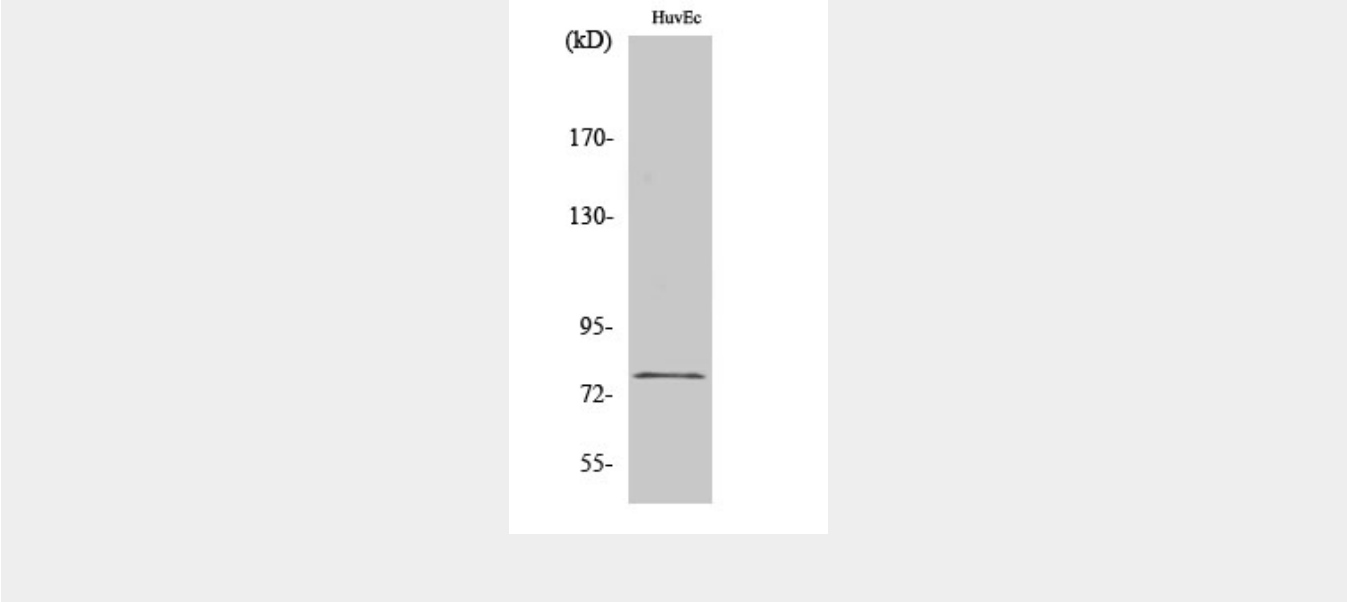

KCNQ4 Polyclonal Antibody - Background

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.