10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Anti-Kv7.5 Antibody
Rabbit polyclonal antibody to Kv7.5
Catalog # AP60906

Specification

Anti-Kv7.5 Antibody - Product Information

Application	**WB**
Primary Accession	Q9NR82
Other Accession	Q9JK45
Reactivity	**Human, Mouse, Monkey**
Host	**Rabbit**
Clonality	**Polyclonal**
Calculated MW	**102179**

Anti-Kv7.5 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

Target/Specificity
Recognizes endogenous levels of Kv7.5 protein.

Dilution
WB~~WB (1/500 - 1/1000)

Format
Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.09% (W/V) sodium azide.

Storage
Store at -20 °C.Stable for 12 months from date of receipt

Anti-Kv7.5 Antibody - Protein Information

Name KCNQ5 (HGNC:6299)

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

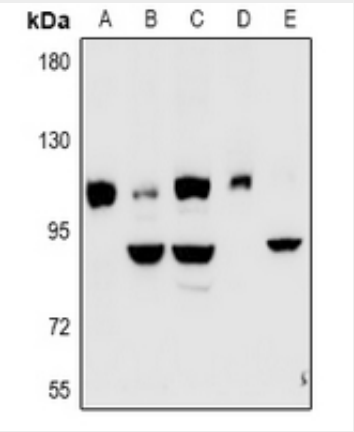
Tissue Location
Strongly expressed in brain and skeletal muscle (PubMed:10787416, PubMed:10816588). In brain, expressed in cerebral cortex, occipital pole, frontal lobe and temporal lobe. Lower levels in hippocampus and putamen. Low to undetectable levels in medulla, cerebellum and thalamus (PubMed:10787416, PubMed:10816588)

Anti-Kv7.5 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

Anti-Kv7.5 Antibody - Images



Western blot analysis of Kv7.5 expression in HEK293T (A), COS7 (B), C6 (C), CT26 (D), MG63 (E)

whole cell lysates.

Anti-Kv7.5 Antibody - Background

KLH-conjugated synthetic peptide encompassing a sequence within the center region of human Kv7.5. The exact sequence is proprietary.