

# KCNA7 Rabbit pAb

KCNA7 Rabbit pAb Catalog # AP94365

#### **Product Information**

**Application** WB, IHC-P, IHC-F, IF

Primary Accession

Reactivity

Host

Clonality

Calculated MW

Physical State

C96RP8

Human

Rabbit

Polyclonal

50559

Liquid

Immunogen KLH conjugated synthetic peptide derived from human KCNA7

Epitope Specificity 251-350/456

**Isotype** IgG

**Purity** affinity purified by Protein A

**Buffer** 0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.

**SUBCELLULAR LOCATION** Membrane; Multi-pass membrane protein.

**SIMILARITY** Belongs to the potassium channel family. A (Shaker) (TC 1.A.1.2) subfamily.

Kv1.7/KCNA7 sub-subfamily.

**SUBUNIT** Heterotetramer of potassium channel proteins.

**Important Note** This product as supplied is intended for research use only, not for use in

human, therapeutic or diagnostic applications.

**Background Descriptions** Potassium channels represent the most complex class of voltage-gated ion

channels from both functional and structural standpoints. Their diverse functions include regulating neurotransmitter release, heart rate, insulin secretion, neuronal excitability, epithelial electrolyte transport, smooth muscle contraction, and cell volume. Four sequence-related potassium channel genes - shaker, shaw, shab, and shal - have been identified in Drosophila, and each has been shown to have human homolog(s). This gene encodes a member of the potassium channel, voltage-gated, shaker-related subfamily. This member contains six membrane-spanning domains with a

shaker-type repeat in the fourth segment. The gene is expressed

preferentially in skeletal muscle, heart and kidney. It is a candidate gene for

inherited cardiac disorders. [provided by RefSeq, Jul 2008]

### **Additional Information**

**Gene ID** 3743

Other Names Potassium voltage-gated channel subfamily A member 7, Voltage-gated

potassium channel subunit Kv1.7, KCNA7

**Target/Specificity** Highly expressed in skeletal muscle, heart and kidney.

**Dilution** WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500

Format 0.01M TBS(pH7.4) with 1% BSA, 0.09% (W/V) sodium azide and 50% Glyce

**Storage** Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When

reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody

is stable for at least two weeks at 2-4 °C.

#### **Protein Information**

Name KCNA7

**Function** Mediates the voltage-dependent potassium ion permeability of excitable

membranes. Assuming opened or closed conformations in response to the

voltage difference across the membrane, the protein forms a

potassium-selective channel through which potassium ions may pass in

accordance with their electrochemical gradient (By similarity).

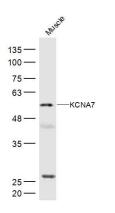
**Cellular Location** Membrane {ECO:0000250 | UniProtKB:Q17ST2}; Multi- pass membrane protein

**Tissue Location** Highly expressed in skeletal muscle, heart and kidney.

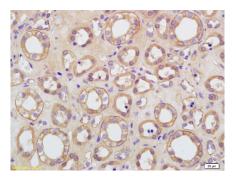
## **Background**

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## **Images**

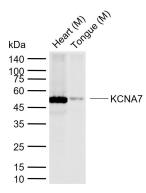


Sample: Muscle (Mouse) Lysate at 40 ug Primary: Anti-KCNA7 (AP94365) at 1/300 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 50 kD Observed band size: 55 kD



Tissue/cell: human kidney tissue; 4%
Paraformaldehyde-fixed and paraffin-embedded; Antigen retrieval: citrate buffer ( 0.01M, pH 6.0 ), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min; Incubation:
Anti-KCNA7 Polyclonal Antibody, Unconjugated(AP94365) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining

Sample: Lane 1: Mouse Heart tissue lysates Lane 2: Mouse Tongue tissue lysates Primary: Anti-KCNA7 (AP94365) at 1/1000 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 50 kDa Observed band size: 51 kDa



Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.