

Anti-KCNS3 antibody



Description Unconjugated Rabbit polyclonal to KCNS3

Model STJ191192

Host Rabbit

Reactivity Human, Mouse

Applications ELISA, WB

Immunogen Synthesized peptide derived from human KCNS3 protein.

Immunogen Region 300-380aa

Gene ID <u>3790</u>

Gene Symbol KCNS3

Dilution range WB 1:500-2000 ELISA 1:5000-20000

Specificity KCNS3 Polyclonal Antibody detects endogenous levels of protein.

Tissue Specificity Detected in whole normal term placental and placental chorionic plate arteries

and veins. Detected in syncytiotrophoblast and in blood vessel endothelium within intermediate villi and chorionic plate (at protein level). Detected in most tissues, but not in peripheral blood lymphocytes. The highest levels of

expression are in lung.

Purification KCNS3 antibody was affinity-purified from rabbit antiserum by affinity-

chromatography using epitope-specific immunogen.

Note For Research Use Only (RUO).

Protein Name Potassium voltage-gated channel subfamily S member 3 Delayed-rectifier K +

channel alpha subunit 3 Voltage-gated potassium channel subunit Kv9.3

Molecular Weight 54 kDa

Clonality Polyclonal

Conjugation Unconjugated

Isotype IgG

Formulation Liquid form in PBS containing 50% glycerol, and 0.02% sodium azide.

Concentration 1 mg/ml

Storage Instruction Store at -20°C, and avoid repeat freeze-thaw cycles.

Database Links HGNC:6302OMIM:603888

Alternative Names Potassium voltage-gated channel subfamily S member 3 Delayed-rectifier K +

channel alpha subunit 3 Voltage-gated potassium channel subunit Kv9.3

Function Potassium channel subunit that does not form functional channels by itself.

Can form functional heterotetrameric channels with KCNB1; modulates the delayed rectifier voltage-gated potassium channel activation and deactivation rates of KCNB1. Heterotetrameric channel activity formed with KCNB1 show increased current amplitude with the threshold for action potential activation shifted towards more negative values in hypoxic-treated pulmonary

artery smooth muscle cells.

Sequence and Domain Family The transmembrane segment S4 functions as voltage-sensor and is

characterized by a series of positively charged amino acids at every third position. Channel opening and closing is effected by a conformation change that affects the position and orientation of the voltage-sensor paddle formed by S3 and S4 within the membrane. A transmembrane electric field that is positive inside would push the positively charged S4 segment outwards, thereby opening the pore, while a field that is negative inside would pull the S4 segment inwards and close the pore. Changes in the position and

orientation of S4 are then transmitted to the activation gate formed by the

inner helix bundle via the S4-S5 linker region.

Cellular Localization Cell membrane. May not reach the plasma membrane but remain in an

intracellular compartment in the absence of KCNB1.

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