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

KCNS3 Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP17334a

Product Information

Application	WB, E
Primary Accession	Q9BQ31
Other Accession	O88759, Q8BQZ8, NP_002243.3
Reactivity	Human
Predicted	Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB37204
Calculated MW	56001
Antigen Region	1-30

Additional Information

Gene ID	3790
Other Names	Potassium voltage-gated channel subfamily S member 3, Delayed-rectifier K(+) channel alpha subunit 3, Voltage-gated potassium channel subunit Kv93, KCNS3
Target/Specificity	This KCNS3 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 1-30 amino acids from the N-terminal region of human KCNS3.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	KCNS3 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	KCNS3 (HGNC:6302)
Function	Potassium channel regulatory subunit that modulates the delayed rectifier

	potassium channel activity of KCNB1 by namely slowing down the deactivation and inactivation time constants (PubMed:10484328). While it does not form functional channel on its own, it can form functional heterotetrameric channels with KCNB1 (PubMed:10484328).
Cellular Location	Cell membrane; Multi-pass membrane protein. Note=May not reach the plasma membrane but remain in an intracellular compartment in the absence of KCNB1 (PubMed:10484328).
Tissue Location	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) (PubMed:22943705) Detected in most tissues, but not in peripheral blood lymphocytes. The highest levels of expression are in lung (PubMed:10484328)

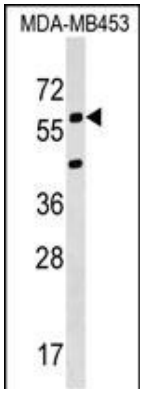
Background

Voltage-gated potassium channels form the largest and most diversified class of ion channels and are present in both excitable and nonexcitable cells. Their main functions are associated with the regulation of the resting membrane potential and the control of the shape and frequency of action potentials. The alpha subunits are of 2 types: those that are functional by themselves and those that are electrically silent but capable of modulating the activity of specific functional alpha subunits. The protein encoded by this gene is not functional by itself but can form heteromultimers with member 1 and with member 2 (and possibly other members) of the Shab-related subfamily of potassium voltage-gated channel proteins. This gene belongs to the S subfamily of the potassium channel family.

References

Nyholt, D.R., et al. Hum. Mol. Genet. 17(21):3318-3331(2008)
van Es, M.A., et al. Nat. Genet. 40(1):29-31(2008)
Schymick, J.C., et al. Lancet Neurol 6(4):322-328(2007)
Gutman, G.A., et al. Pharmacol. Rev. 57(4):473-508(2005)
Kerschensteiner, D., et al. Proc. Natl. Acad. Sci. U.S.A. 102(17):6160-6165(2005)

Images



KCNS3 Antibody (N-term) (Cat. #AP17334a) western blot analysis in MDA-MB453 cell line lysates (35ug/lane).This demonstrates the KCNS3 antibody detected the KCNS3 protein (arrow).