

KCNQ5 Polyclonal Antibody

Catalog Number PA1-941

Product data sheet

Details		Species Reactivity	
Size	200 µg	Species reactivity	Human, Rat
Host/Isotope	Rabbit / IgG	Published species	Rat, Mouse
Class	Polyclonal	Tested Applications	
Type	Antibody	Dilution *	
Immunogen	Synthetic peptide corresponding to residues C(880) K A G E S T D A L S L P H V K L K(897) of human KCNQ5 protein.	Western Blot (WB)	
		1:250	
Conjugate	Unconjugated	* Suggested working dilutions are given as a guide only. It is recommended that the user titrate the product for use in their own experiment using appropriate negative and positive controls.	
Form	Liquid		
Concentration	1 mg/mL		
Purification	Antigen affinity chromatography		
Storage buffer	PBS with 1mg/mL BSA		
Contains	0.05% sodium azide		
Storage Conditions	-20° C, Avoid Freeze/Thaw Cycles		

Product specific information

PA1-941 detects the KCNQ5 from rat and human samples. This antibody is specific for KCNQ5 and does not detect KCNQ1, KCNQ2, KCNQ3 or KCNQ4. PA1-941 has been successfully used in Western blot procedures. By Western blot, this antibody detects a ~125 kDa band representing KCNQ5 from rat brain extract. The PA1-941 immunizing peptide corresponds to amino acid residues 880-897 from human KCNQ5.

Background/Target Information

KCNQs are members of the voltage-dependent non-inactivating potassium channel family. Currently there are five known KNCQs (KCNQ1-5) found in the central nervous system. Studies have shown that KCNQ3 and KCNQ5 form heteromultimers that, when formed, substantially increase the M-current. Inhibition of M-current controls neuron excitability throughout the nervous system as well as the responsiveness to synaptic inputs. Genetic mutations in these proteins have been linked to disorders such as benign familial neonatal convulsions (BFNC), deafness, neuropathic pain and epilepsy. Voltage-dependent potassium channels are key regulators of the resting membrane potential and modulate the excitability of electrically active cells. The channels are usually tetrameric and can interact with auxiliary subunits that enhance or modify currents mediated by the pore-forming subunits.

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