

Product datasheet for **TA326403**

KCNQ2 Mouse Monoclonal Antibody [Clone ID: S26A-23]

Product data:

Product Type:	Primary Antibodies
Clone Name:	S26A-23
Applications:	IHC
Recommended Dilution:	WB: 1-10ug/ml, IHC: 0.1-1.0ug/ml, IF: 1.0-10ug/ml
Reactivity:	Human, Mouse, Rat
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Immunogen:	Fusion protein amino acids 1-59 of human KCNQ2
Formulation:	PBS pH7.4, 50% glycerol, 0.09% sodium azide
Concentration:	lot specific
Purification:	Protein G Purified
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	potassium voltage-gated channel subfamily Q member 2
Database Link:	NP_742105 Entrez Gene 16536 Mouse Entrez Gene 170848 Rat Entrez Gene 3785 Human O43526



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Background:

Ion channels are integral membrane proteins that help establish and control the small voltage gradient across the plasma membrane of living cells by allowing the flow of ions down their electrochemical gradient. They are present in the membranes that surround all biological cells because their main function is to regulate the flow of ions across this membrane. Whereas some ion channels permit the passage of ions based on charge, others conduct based on a ionic species, such as sodium or potassium. Furthermore, in some ion channels, the passage is governed by a gate which is controlled by chemical or electrical signals, temperature, or mechanical forces. There are a few main classifications of gated ion channels. There are voltage- gated ion channels, ligand- gated, other gating systems and finally those that are classified differently, having more exotic characteristics. The first are voltage- gated ion channels which open and close in response to membrane potential. These are then separated into sodium, calcium, potassium, proton, transient receptor, and cyclic nucleotide-gated channels; each of which is responsible for a unique role. Ligand-gated ion channels are also known as ionotropic receptors, and they open in response to specific ligand molecules binding to the extracellular domain of the receptor protein. The other gated classifications include activation and inactivation by second messengers, inward-rectifier potassium channels, calcium-activated potassium channels, two-pore-domain potassium channels, light-gated channels, mechano-sensitive ion channels and cyclic nucleotide-gated channels. Finally, the other classifications are based on less normal characteristics such as two-pore channels, and transient receptor potential channels. Specifically, Kv7.2 (KvLQT2) is a potassium channel protein coded for by the gene KCNQ2. It is associated with benign familial neonatal convulsions.

Synonyms:

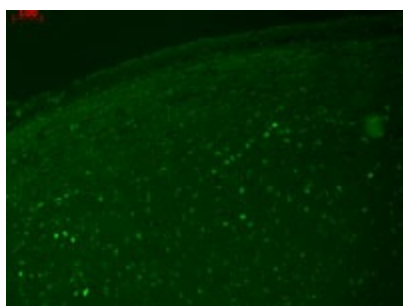
BFNC; BFNS1; EBN; EBN1; EIEE7; ENB1; HNSPC; KCNA11; KV7.2; KVEBN1

Note:

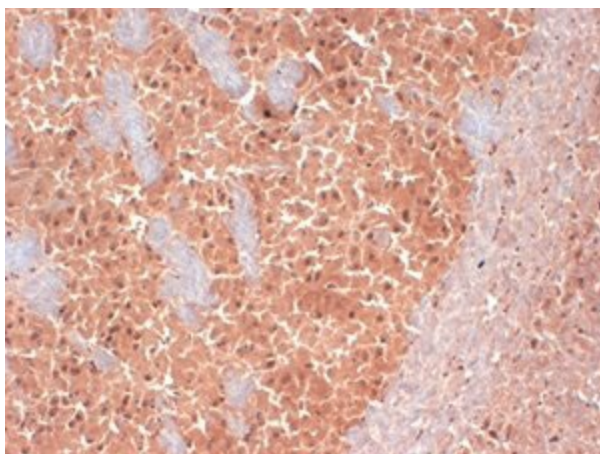
Detects ~95kDa.

Protein Families:

Druggable Genome, Ion Channels: Potassium, Transmembrane

Product images:

IHC analysis of KCNQ2 in human hippocampal tissues using the antibody



IHC analysis of KCNQ2 in frozen sections of mouse brain using the antibody