

Rabbit KCNQ2 Polyclonal Antibody | anti-KCNQ2 antibody

KCNQ2 Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA329028	Rabbit	Human, Mouse, Rat Predicted Reactivity: Pig(83%), Horse(100%), Chicken(100%)	ELISA

PRODUCT SYNONYMS

KCNQ2; Polyclonal Antibody; KCNQ2 Antibody; anti-KCNQ2 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat Predicted Reactivity: Pig(83%), Horse(100%), Chicken(100%)
Clonality	Polyclonal
Isotype	IgG
Specificity	KCNQ2 Antibody detects endogenous levels of total KCNQ2.
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin (Thermo Fisher Scientific).
Form/Format	Liquid. Rabbit IgG in phosphate buffered saline, pH7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol
Concentration	1mg/ml (varies by lot)
Sequence Length	872
Applicable Applications for anti-KCNQ2 antibody	ELISA
Immunogen	A synthesized peptide derived from human KCNQ2, corresponding to a region within the internal amino acids.
Fragment	Fab fragment
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



IF (Immunofluorescence)

AAA329028 staining Hela cells by IF/ICC. The samples were fixed with PFA and permeabilized in 0.1% Triton X-100, then blocked in 10% serum for 45 minutes at 25°C. Samples were then incubated with primary Ab(AAA329028 1:200) and mouse anti-beta tubulin Ab(T0023 1:200) for 1 hour at 37°C. An AlexaFluor594 conjugated goat anti-rabbit IgG(H+L) Ab(Red) and an AlexaFluor488 conjugated goat anti-mouse IgG(H+L) Ab(Green) were used as the secondary antibody. The nuclear counter stain is DAPI(blue).



WB (Western Blot)

Western blot analysis of extracts from HepG2 cells, using KCNQ2 Antibody. The lane on the left was treated with blocking peptide.

ADDITIONAL INFORMATION

Related Product Information for anti-KCNQ2 antibody	Function: Associates with KCNQ3 to form a potassium channel with essentially identical properties to the channel underlying the native M-current, a slowly activating and deactivating potassium conductance which plays a critical role in determining the subthreshold electrical excitability of neurons as well as the responsiveness to synaptic inputs. Therefore, it is important in the regulation of neuronal excitability. KCNQ2/KCNQ3 current is blocked by linopirdine and XE991, and activated by the anticonvulsant retigabine (PubMed:9836639, PubMed:11572947, PubMed:14534157, PubMed:12742592, PubMed:17872363). As the native M-channel, the potassium channel composed of KCNQ2 and KCNQ3 is also suppressed by activation of the muscarinic acetylcholine receptor CHRM1 (PubMed:10684873). Post Translational Modifications: KCNQ2/KCNQ3 heteromeric current can be increased by intracellular cyclic AMP, an effect that depends on phosphorylation of Ser-52 in the N-terminal region.KCNQ2/KCNQ3 are ubiquitinated by NEDD4L. Ubiquitination leads to protein degradation (Probable). Degradation induced by NEDD4L is inhibited by USP36 (PubMed:27445338). Subcellular Location: Cell membrane>Multi-pass membrane protein. Tissue Specificity: In adult and fetal brain. Highly expressed in areas containing neuronal cell bodies, low in spinal chord and corpus callosum. Isoform 2 is preferentially expressed in differentiated neurons. Isoform 6 is prominent in fetal brain, undifferentiated neuroblastoma cells and brain tumors. Subunit Structure: Heterotetramer with KCNQ3; form the heterotetrameric M potassium channel (PubMed:9836639, PubMed:27564677). Interacts with calmodulin; the interaction is calcium-independent, constitutive and participates to the proper assembly of a functional heterotetrameric M channel (PubMed:27564677). May associate with KCNE2 (PubMed:11034315). Interacts with IQCJ-SCHIP1 (By similarity). Similarity: The segment S4 is probably the voltage-sensor and is characterized by a series of positively charged amino acids at every third position.Belongs to the potassium channel family. KQT (TC 1.A.1.15) subfamily. Kv7.2/KCNQ2 sub-subfamily.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	14285389
NCBI GeneID	3785
UniProt Accession #	O43526
Molecular Weight	Observed Molecular Weight: (Observed)95kD. Predicted Molecular Weight: (Calculated)96kDa.
NCBI Official Full Name	Potassium voltage-gated channel subfamily KQT member 2
NCBI Official Synonym Full Names	potassium voltage-gated channel subfamily Q member 2
NCBI Official Symbol	KCNQ2
NCBI Official Synonym Symbols	EBN; BFNC; EBN1; ENB1; HNSPC; KV7.2; KCNA11
NCBI Protein Information	potassium voltage-gated channel subfamily KQT member 2
UniProt Protein Name	Potassium voltage-gated channel subfamily KQT member 2
UniProt Gene Name	KCNQ2
UniProt Entry Name	KCNQ2_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.