

Rabbit KCNQ2 Polyclonal Antibody | anti-KCNQ2 antibody

Anti-KCNQ2 Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA19238	Rabbit	Human, Mouse, Rat	Western Blot, Immunohistochemistry, Flow Cytometry, Functional Assay, ELISA

PRODUCT SYNONYMS

KCNQ2; Polyclonal Antibody; Anti-KCNQ2 Antibody; Potassium voltage-gated channel subfamily KQT member 2; KQT-like 2; Neuroblastoma-specific potassium channel subunit alpha KvLQT2; Voltage-gated potassium channel subunit Kv7. 2; potassium voltage-gated channel subfamily Q member 2; anti-KCNQ2 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Rabbit IgG polyclonal antibody for KCNQ2 detection.
Purity/Purification	Immunogen affinity purified.
Form/Format	Lyophilized
Applicable Applications for anti-KCNQ2 antibody	WB (Western Blot), IHC (Immunohistochemistry), FCM/FACS (Flow Cytometry), ELISA
Application Notes	WB: Concentration: 0.25-0.5ug/ml; Tested Sepcies: Human, Mouse, Rat IHC-P: Concentration: 2-5ug/ml; Tested Sepcies: Human FC: Concentration: 1-3ug/1x10⁶ cells; Tested Species: Human, Rat ELISA: Concentration: 0.1-0.5ug/ml; Tested Species: Human Tested Species: In-house tested species with positive results. Other applications have not been tested. Optimal dilutions should be determined by the end users.
Immunogen	E.coli-derived human KCNQ2 recombinant protein (Position: M371-D408).
Contents	Each vial contains 4mg Trehalose, 0.9mg NaCl and 0.2mg Na ₂ HPO ₄
Reconstitution	0.2mL of distilled water will yield a concentration of 500ug/mL.
Preparation and Storage	Store at -20 degree C for one year from date of receipt. After reconstitution, at 4 degree C for one month. It can also be aliquotted and stored frozen at -20 degree C for six months. Avoid repeated freezing and thawing.



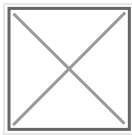
FCM (Flow Cytometry)

Figure 7. Flow Cytometry analysis of C6 cells using anti-KCNQ2 antibody. Overlay histogram showing C6 cells stained with (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-KCNQ2 Antibody (1 ug/1x10⁶ cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10 ug/1x10⁶ cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1 ug/1x10⁶) used under the same conditions. Unlabelled sample (Red line) was also used as a control.



FCM (Flow Cytometry)

Figure 6. Flow Cytometry analysis of 293T cells using anti-KCNQ2 antibody. Overlay histogram showing 293T cells stained with (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-KCNQ2 Antibody (1 ug/1x10⁶ cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10 ug/1x10⁶ cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1 ug/1x10⁶) used under the same conditions. Unlabelled sample (Red line) was also used as a control.



IHC (Immunohistochemistry)

Figure 5. IHC analysis of KCNQ2 using anti-KCNQ2 antibody. KCNQ2 was detected in a paraffin-embedded section of human renal clear cell carcinoma tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-KCNQ2 Antibody overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.



IHC (Immunohistochemistry)

Figure 4. IHC analysis of KCNQ2 using anti-KCNQ2 antibody. KCNQ2 was detected in a paraffin-embedded section of human rectal cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-KCNQ2 Antibody overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.



IHC (Immunohistochemistry)

Figure 3. IHC analysis of KCNQ2 using anti-KCNQ2 antibody. KCNQ2 was detected in a paraffin-embedded section of human lung cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-KCNQ2 Antibody overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.



IHC (Immunohistochemistry)

KCNQ2 was detected in a paraffin-embedded section of human breast cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-KCNQ2 Antibody overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.

ADDITIONAL INFORMATION

Related Product Information for anti-KCNQ2 antibody	KCNQ2, also called kv7. 2, is a potassium channel protein coded for by the gene KCNQ2. It is mapped to 20q13.33. The KCNQ2 gene encodes a voltage-gated potassium channel that is expressed in the brain. Expression of human KCNQ2 in Xenopus laevis oocytes led to potassium-selective currents that activated slowly with depolarization. Defects in this gene are a cause of benign familial neonatal convulsions type 1(BFNC), also known as epilepsy, benign neonatal type 1(EBN1). At least five transcript variants encoding five different isoforms have been found for this gene.
References	1. Biervert, C., Schroeder, B. C., Kubisch, C., Berkovic, S. F., Propping, P., Jentsch, T. J., Steinlein, O. K. A potassium channel mutation in neonatal human epilepsy. Science 279: 403-406, 1998. 2. "Entrez Gene: KCNQ2 potassium voltage-gated channel, KQT-like subfamily, member 2" 3. Heron, S. E., Cox, K., Grinton, B. E., Zuberi, S. M., Kivity, S., Afawi, Z., Straussberg, R., Berkovic, S. F., Scheffer, I. E., Mulley, J. C. Deletions or duplications in KCNQ2 can cause benign familial neonatal seizures. (Letter) J. Med. Genet. 44: 791-796, 2007.

NCBI AND UNIPROT INFORMATION

NCBI GI #	14285389
NCBI GeneID	3785
UniProt Accession #	O43526; O43796; O75580; O95845; Q4VXP4; Q4VXR6; Q5VYT8; Q96J59; Q99454

NCBI Official Full Name	Potassium voltage-gated channel subfamily KQT member 2
NCBI Official Synonym Full Names	potassium voltage-gated channel, KQT-like subfamily, member 2
NCBI Official Symbol	KCNQ2
NCBI Official Synonym Symbols	EBN; BFNC; EBN1; ENB1; BFNS1; EIEE7; HNTPC; KV7.2; KCNA11; KVEBN1
NCBI Protein Information	potassium voltage-gated channel subfamily KQT member 2; KQT-like 2; voltage-gated potassium channel subunit Kv7.2; neuroblastoma-specific potassium channel protein; neuroblastoma-specific potassium channel subunit alpha KvLQT2
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.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/kcnq2-antibody-western-blot-immunohistochemistry-flow-cytometry-elisa/19238>