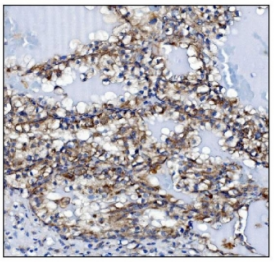
# KCNQ2 Antibody / Kv7.2 (RQ6494)

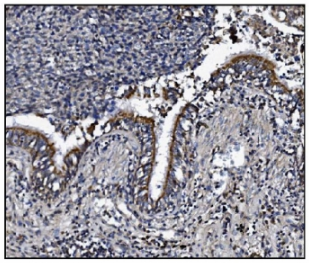
| Catalog No. | Formulation | Size |
|---|---|---|
| RQ6494 | 0.5mg/ml if reconstituted with 0.2ml sterile DI water | 100 ug |

**Bulk quote request**

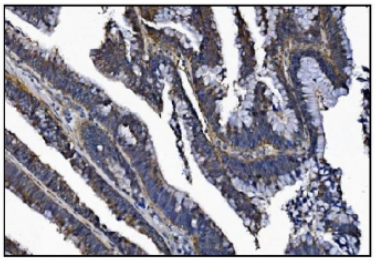
| | |
|---|---|
| **Availability** | 1-3 business days |
| **Species Reactivity** | Human, Mouse, Rat |
| **Format** | Antigen affinity purified |
| **Host** | Rabbit |
| **Clonality** | Polyclonal (rabbit origin) |
| **Isotype** | Rabbit IgG |
| **Purity** | Affinity purified |
| **Buffer** | Lyophilized from 1X PBS with 2% Trehalose |
| **UniProt** | O43526 |
| **Localization** | Cell membrane, cytoplasm |
| **Applications** | Western blot: 1-2ug/ml<br>Immunohistochemistry (FFPE): 2-5ug/ml<br>Flow cytometry: 1-3ug/million cells<br>Direct ELISA: 0.1-0.5ug/ml |
| **Limitations** | This KCNQ2 antibody is available for research use only. |



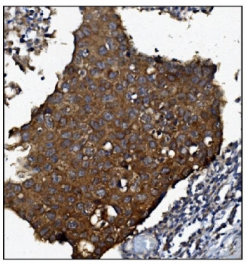
IHC staining of FFPE human renal clear cell carcinoma tissue with KCNQ2 antibody. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



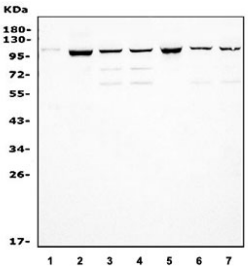
IHC staining of FFPE human lung cancer tissue with KCNQ2 antibody. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



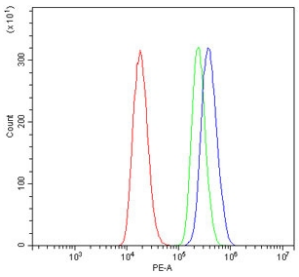
IHC staining of FFPE human rectal cancer tissue with KCNQ2 antibody. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



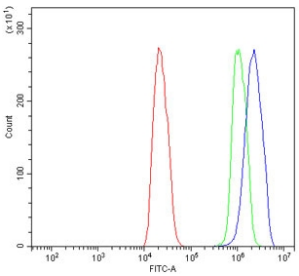
IHC staining of FFPE human breast cancer tissue with KCNQ2 antibody. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.




Western blot testing of 1) human SH-SY5Y, 2) human HEK293, 3) rat brain, 4) rat brain, 5) rat C6, 6) mouse brain and 7) mouse brain lysate with KCNQ2 antibody. Predicted molecular weight ~96 kDa.




Flow cytometry testing of human 293T cells with KCNQ2 antibody at 1ug/million cells (blocked with goat sera); Red=cells alone, Green=isotype control, Blue= KCNQ2 antibody.




Flow cytometry testing of rat C6 cells with KCNQ2 antibody at 1ug/million cells (blocked with goat sera); Red=cells alone, Green=isotype control, Blue= KCNQ2 antibody.

## Description

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.

## Application Notes

Optimal dilution of the KCNQ2 antibody should be determined by the researcher.

## Immunogen

An E. coli-derived human protein (amino acids M371-D408) was used as the immunogen for the KCNQ2 antibody.

## Storage

After reconstitution, the KCNQ2 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.


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