

Datasheet for 200-301-F84**KCNQ4 Antibody****Overview**

Description:	Anti-KCNQ4 (MOUSE) Monoclonal Antibody - 200-301-F84
Item No.:	200-301-F84
Size:	100 µg
Applications:	IF, IHC, IP, WB
Reactivity:	Human, Mouse, Rat
Host Species:	Mouse

Product Details

Background:	Specifically, the protein encoded by this gene forms a potassium channel that is thought to play a critical role in the regulation of neuronal excitability, particularly in sensory cells of the cochlea. The current generated by this channel is inhibited by M1 muscarinic acetylcholine receptors and activated by retigabine, a novel anticonvulsant drug.
Synonyms:	DFNA2, KQT like 4, Kv7.4, voltage gated potassium channel subunit Kv7.4, IKs producing slow voltage-gated potassium channel subunit alpha, KvLQT4, KQT-like 4, Potassium voltage-gated channel subfamily KQT member 4
Host Species:	Mouse
Clonality:	Monoclonal
Clone ID:	N43/6
Format:	IgG1

Target Details

Gene Name:	KCNQ4
Reactivity:	Human, Mouse, Rat
Immunogen Type:	Conjugated Peptide
Immunogen:	KCNQ4 Antibody was produced in mice by repeated immunizations raised against a fusion protein n-terminal region of human KCNQ4.

Purity/Specificity: Anti-KCNQ4 Antibody was purified by Protein G chromatography. A BLAST analysis was used to suggest cross-reactivity with KCNQ4 from Human, Rat, and Mouse based on 100% homology with the immunizing sequence. Cross-reactivity with KCNQ4 from other sources has not been determined. Channels and Transporters research.

Relevant Links:

- [NCBI - NP_004691.2](#)
- [GeneID - 9132](#)
- [UniProtKB - P56696](#)

Application Details

Tested Applications: IF, IHC, IP, WB

Application Note: Anti-KCNQ4 Antibody is tested for use in WB, IP, IHC and IF microscopy. Expect a band approximately ~77kDa on specific lysates. Specific conditions for reactivity should be optimized by the end user.

Assay Dilutions: All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.

IF: 1.0-10ug/mL

IHC: 0.1-1.0ug/mL

WB: 1-10ug/mL

Formulation

Physical State: Liquid (sterile filtered)

Concentration: 1mg/mL by UV absorbance at 280 nm

Buffer: 1X PBS, pH 7.4

Preservative: 0.09% (w/v) Sodium Azide

Stabilizer: 50% (v/v) Glycerol

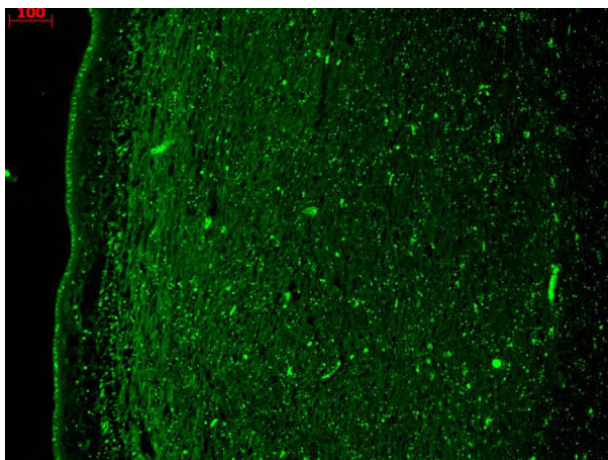
Shipping & Handling

Shipping Condition: Dry Ice

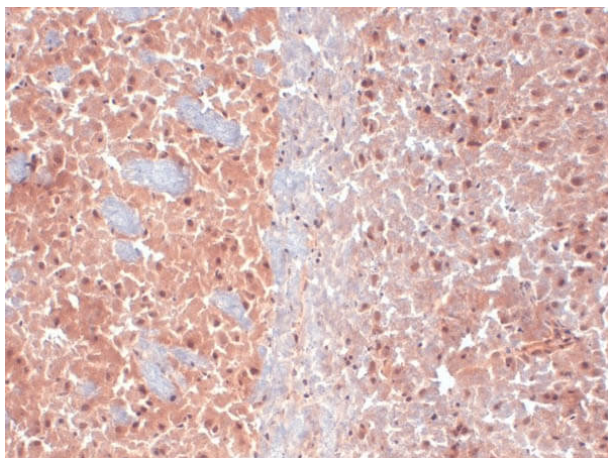
Storage Condition: Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.

Expiration:

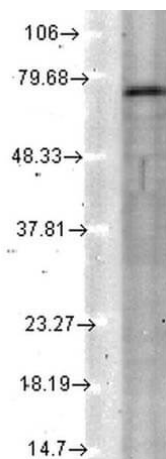
Expiration date is one (1) year from date of receipt.

Images**Immunohistochemistry**

Immunohistochemistry of Anti-KCNQ4 Antibody. Tissue: human hippocampus. Fixation: Bouin's Fixative and paraffin-embedded. Primary Antibody: Anti-KCNQ4 at 1:1000 for 1 hour at RT. Secondary Antibody: FITC Goat Anti-Mouse (green) at 1:50 for 1 hour at RT.

**Immunohistochemistry**

Immunohistochemistry of mouse anti-KCNQ4 antibody. Tissue: Frozen sections of mouse brain extract. Primary Antibody: KCNQ4 antibody at 1 µg/mL for 1h at RT. Secondary antibody: Peroxidase mouse secondary at 1:10,000 for 45 min at RT. Localization: Basal cell membrane. Staining: KCNQ4 as brown signal.

**Western Blot**

Western Blot of mouse anti-KCNQ4 antibody. Lane 1: Rat Tissue Lysate. Primary antibody: KCNQ4 antibody at 1:1000 for overnight at 4°C. Secondary antibody: Goat anti-mouse IgG HRP secondary antibody at 1:10,000 for 45 min at RT. Block: 5% Blotto overnight 4°C. Predicted/Observed size: 77.1 kDa/77 kDa for KCNQ4 total. Other band(s): none.

Disclaimer

This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information. All products of animal origin manufactured by Rockland Immunochemicals are derived from starting materials of North American origin. Collection was performed in United States Department of Agriculture (USDA) inspected facilities and all materials have been inspected and certified to be free of disease and suitable for exportation. All properties listed are typical characteristics and are not specifications. All suggestions and data are offered in good faith but without guarantee as conditions and methods of use of our products are beyond our control. All claims must be made within 30 days following the date of delivery. The prospective user must determine the suitability of our materials before adopting them on a commercial scale. Suggested uses of our products are not recommendations to use our products in violation of any patent or as a license under any patent of Rockland Immunochemicals, Inc. If you require a commercial license to use this material and do not have one, then return this material, unopened to: Rockland Inc., P.O. BOX 5199, Limerick, Pennsylvania, USA.