abcam

Product datasheet

Anti-KCNQ2 antibody ab22897

5 Abreviews 14 References 画像数 3

製品の概要

製品名	Anti-KCNQ2 antibody
製品の詳細	Rabbit polyclonal to KCNQ2
由来種	Rabbit
特異性	NB: Rabbit polyclonal to KCNQ2 (ab22897) was used in reducing but not in denaturing conditions in WB (i.e. not heated or boiled). Replenishment batches of ab22897 are tested in WB. Previous batches were additionally validated in ICC/IF. This application is still expected to work and is covered by our Abpromise guarantee.
アプリケーション	**適用あり:** WB, ICC/IF
種交差性	**交差種:** Mouse, Rat, Human
免疫原	Synthetic peptide conjugated to KLH derived from within residues 850 to the C-terminus of Human KCNQ2. Immunogen **の所有権に関して** (Peptide available as **ab25449**.)
特記事項	The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

製品の特性

製品の状態	Liquid
保存方法	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
バッファー	pH: 7.40 Preservative: 0.02% Sodium azide Constituent: PBS Batches of this product that have a concentration < 1mg/ml may have BSA added as a stabilising agent. If you would like information about the formulation of a specific lot, please contact our scientific support team who will be happy to help.

精製度	Immunogen affinity purified
ポリ/モノ	ポリクローナル
アイソタイプ	IgG

アプリケーション

The Abpromise guarantee Abpromise保証は、次のテスト済みアプリケーションにおけるab22897の使用に適用されます

アプリケーションノートには、推奨の開始希釈率がありますが、適切な希釈率につきましてはご検討ください。

アプリケーション	Abreviews	特記事項
WB	★★★★☆ (3)	Use a concentration of 1 µg/ml. Detects a band of approximately 95 kDa (predicted molecular weight: 95 kDa). NB: Rabbit polyclonal to KCNQ2 (ab22897) was used in reducing but not in denaturing conditions in WB (i.e. not heated or boiled).
ICC/IF	★★★★★ (2)	Use at an assay dependent concentration.

ターゲット情報

機能

Probably important in the regulation of neuronal excitability. 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. KCNQ2/KCNQ3 current is blocked by linopirdine and XE991, and activated by the anticonvulsant retigabine. Muscarinic agonist oxotremorine-M strongly suppress KCNQ2/KCNQ3 current in cells in which cloned KCNQ2/KCNQ3 channels were coexpressed with M1 muscarinic receptors.

組織特異性

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.

関連疾患

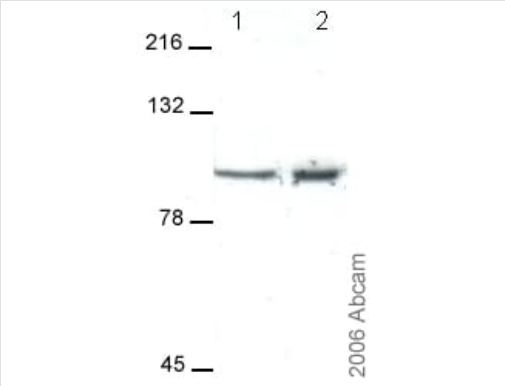
Defects in KCNQ2 are the cause of benign familial neonatal seizures type 1 (BFNS1) [MIM:121200]. A disorder characterized by clusters of seizures occurring in the first days of life. Most patients have spontaneous remission by 12 months of age and show normal psychomotor development. Some rare cases manifest an atypical severe phenotype associated with epileptic encephalopathy and psychomotor retardation. The disorder is distinguished from benign familial infantile seizures by an earlier age at onset. In some patients, neonatal convulsions are followed later in life by myokymia, a benign condition characterized by spontaneous involuntary contractions of skeletal muscles fiber groups that can be observed as vermiform movement of the overlying skin. Electromyography typically shows continuous motor unit activity with spontaneous oligo- and multiplet-discharges of high intraburst frequency (myokymic discharges). Some patients may have isolated myokymia.
Defects in KCNQ2 are the cause of epileptic encephalopathy early infantile type 7 (EIEE7) [MIM:613720]. EIEE7 is an autosomal dominant seizure disorder characterized by infantile onset of refractory seizures with resultant delayed neurologic development and persistent neurologic abnormalities.

配列類似性

Belongs to the potassium channel family. KQT (TC 1.A.1.15) subfamily. Kv7.2/KCNQ2 sub-

	subfamily.
ドメイン	The segment S4 is probably the voltage-sensor and is characterized by a series of positively charged amino acids at every third position.
翻訳後修飾	In Xenopus oocytes KCNQ2/KCNQ3 heteromeric current can be increased by intracellular cyclic AMP, an effect that depends on phosphorylation of Ser-52 in the N-terminus region.
細胞内局在	Membrane.

画像



Western blot - Anti-KCNQ2 antibody (ab22897)

This image is courtesy of Randal Moldrich, CNRS UMR7637, ESPCI, France

All lanes : Anti-KCNQ2 antibody (ab22897) at 1 µg/ml

Lane 1 : Rat whole brain lysate

Lane 2 : Mouse whole brain lysate

Lysates/proteins at 40 µg per lane.

Secondary

All lanes : Anti-rabbit HRP at 1/20000 dilution

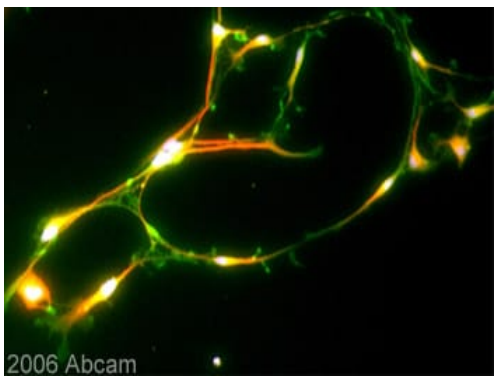
Developed using the ECL technique.

Performed under reducing conditions.

Predicted band size: 95 kDa

Observed band size: 95 kDa

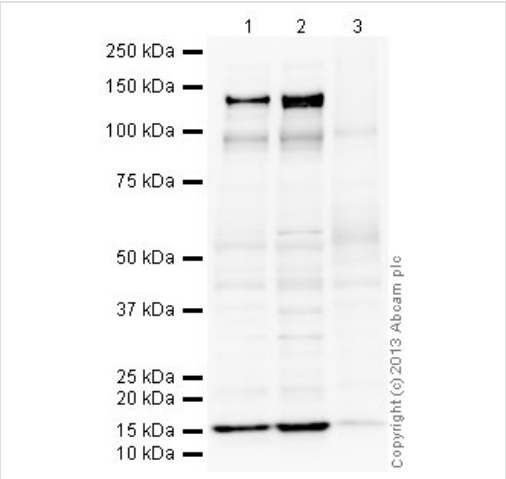
Rabbit polyclonal to KCNQ2 (ab22897) was used in reducing conditions in WB but not in denaturing conditions (i.e. not heated).



Immunocytochemistry/ Immunofluorescence - Anti-KCNQ2 antibody (ab22897)

This image is courtesy of Randal Moldrich, CNRS UMR7637, ESPCI, France

Immunfluorescent detection of KCNQ2 (green colour) in differentiated murine neural precursors using Rabbit polyclonal to KCNQ2 (ab22897). KCNQ2 labeling is seen in the tips of neurite extensions (such as the cell in the top left corner), along axons, dendrites and possibily spines. ab22897 (3.5µg/ml) was incubated overnight at 4°C. Secondary antibody used is goat anti-rabbit Alexa fluor 488 (1h at RT). The red colour is MAP2 detection (Secondary used is goat anti-mouse Alexa fluor 568; 1h at RT). NB: The white centres are caused by high intensity to-pro-3 blue nuclear counterstain cross-colouring with the red and background green.



Western blot - Anti-KCNQ2 antibody (ab22897)

All lanes : Anti-KCNQ2 antibody (ab22897) at 1 µg/ml

Lane 1 : Brain (Rat) Tissue Lysate
Lane 2 : Brain (Mouse) Tissue Lysate
Lane 3 : Brain (Human) Tissue Lysate - adult normal tissue

Lysates/proteins at 20 µg per lane.

Secondary
All lanes : Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/10000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

Predicted band size: 95 kDa
Observed band size: 95 kDa
Additional bands at: 140 kDa, 15 kDa. We are unsure as to the identity of these extra bands.

Exposure time: 20 minutes

This blot was produced using a 4-12% Bis-tris gel under the MOPS buffer system. The gel was run at 200V for 50 minutes before being transferred onto a Nitrocellulose membrane at 30V for 70 minutes. The membrane was then blocked for an hour using 5% Bovine Serum Albumin before being incubated with ab22897 overnight at 4°C. Antibody binding was detected using an anti-rabbit antibody conjugated to HRP, and visualised using ECL development solution.

Abcam recommends loading unheated lysates. Abcam welcomes customer feedback and would appreciate any comments regarding this product and the data presented above.

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