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Lieferung & Zahlungsart

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Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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Anti-KCC2 Antibody [S1-12]

Mouse Anti-Rat KCC2 Monoclonal IgG2a
Catalog No. SMC-392



Discovery through partnership | Excellence through quality

Overview

Product Name

KCC2 Antibody

Description

Mouse Anti-Rat KCC2 Monoclonal IgG2a

Species Reactivity

Human, Mouse, Rat

Applications

WB, IHC, IP

Antibody Dilution

WB (1:1000), IHC (1:300); optimal dilutions for assays should be determined by the user.

Host Species

Mouse

Immunogen Species

Rat

Immunogen

Fusion protein amino acids 932-1043 corresponding to rat KCC2

Concentration

1 mg/ml

Conjugates

Alkaline Phosphatase, APC, ATTO 390, ATTO 488, ATTO 565, ATTO 594, ATTO 633, ATTO 655, ATTO 680, ATTO 700, Biotin, FITC, HRP, PE/ATTO 594, PerCP, RPE, Streptavidin, Unconjugated

Properties

Storage Buffer

PBS pH7.4, 50% glycerol, 0.09% sodium azide

Storage Temperature

-20°C

Shipping Temperature

Blue Ice or 4°C

Purification

Protein G Purified

Clonality

Monoclonal

Clone Number

S1-12

Isotype

IgG2a

Specificity

Detects ~140kDa.

Cite This Product

Mouse Anti-Rat KCC2 Monoclonal, Clone S1-12 (StressMarq Biosciences Inc., Victoria BC CANADA, Catalog # SMC-392)

Certificate Of Analysis

1 µg/ml of SMC-392 was sufficient for detection of KCC2 in 10 µg of rat brain lysate by colorimetric immunoblot analysis using goat anti-mouse IgG:HRP as the secondary antibody.

Biological Description

Alternative Names

Potassium Chloride Cotransporter Antibody, Potassium chloride transporter 5 Antibody, SLC12A5 Antibody, hKCC2 Antibody, S12A5 Antibody, Solute carrier family 12 member 5 Antibody, Electroneutral potassium-chloride cotransporter 2 Antibody, Furosemide-sensitive K-Cl cotransporter Antibody, K-Cl cotransporter 2 Antibody, rKCC2 Antibody, Neuronal K-Cl cotransporter Antibody, KIAA1176 Antibody, Electroneutral potassium chloride cotransporter 2 Antibody, Erythroid K Cl cotransporter 2 Antibody, Furosemide sensitive K Cl cotransporter Antibody, K-Cl cotransporter 2 Antibody, KCC 2 Antibody, Neuronal K Cl cotransporter Antibody, Solute carrier family 12 (potassium chloride transporter) member 5 Antibody, Solute carrier family 12 member 5 Antibody

Research Areas

Ion Pumps/Transporters, Neuroscience, Pumps/Transporters

Cellular Localization

Membrane

Accession Number

NP_599190

Gene ID

171373

Swiss Prot

Q63633

Scientific Background

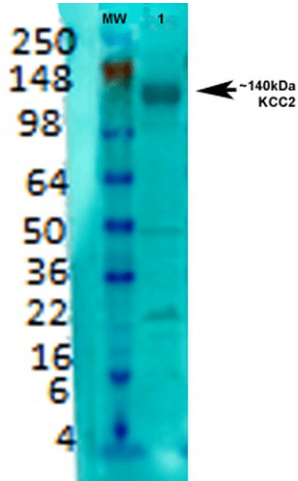
KCC2 is a member of the cation-chloride cotransporter gene family (1). It acts as a K-Cl cotransporter. KCCs normally lower intracellular chloride concentrations below the electrochemical equilibrium potential and depending on the chemical concentration gradients of potassium and chloride, KCC2 can operate as a net efflux or influx pathway. It is proposed to act as the main chloride extruder to promote fast hyperpolarizing postsynaptic inhibition in the brain (2, 3). KCC2 is expressed at high levels in neurons throughout the nervous system and immunofluorescence shows that the protein is localized at inhibitory synapses of

the spinal cord (4). Studies in mice have shown that KCC2 reduces GABA's inhibitory signaling, resulting in motor defects, epilepsy, and anxiety-like behavior.

References

1. Lee L.H., Walker J.A., Williams J.R., Goodier R.J., Payne J.A., Moss S.J. (2007) *J Biol Chem.* 282(41): 29777-29784.
2. Watanabe M., Wake H., Moorhouse A.J., Nabekura J. (2009) *J Biol Chem.* 284(41): 27980-27988.
3. Gulyas A.I., Sik A., Payne J.A., Kaila K., Freund T.F. (2001) *Eur J Neurosci.* 13(12): 2205-2217.
4. Vinay L., Jean-Xavier C. (2008) *Brain Res Rev.* 57(1): 103-110.

Product Images



Western Blot analysis of Rat brain membrane lysate showing detection of KCC2 protein using Mouse Anti-KCC2 Monoclonal Antibody, Clone S1-12 (SMC-392). Primary Antibody: Mouse Anti-KCC2 Monoclonal Antibody (SMC-392) at 1:1000.

Product Citations (0)

Currently there are no citations for this product.

Reviews

There are no reviews yet.