Datasheet for ABIN1043014

anti-SLC12A4 antibody (AA 932-1043)

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Overview

Quantity:	100 µg
Target:	SLC12A4
Binding Specificity:	AA 932-1043
Reactivity:	Rat
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This SLC12A4 antibody is un-conjugated
Application:	Immunohistochemistry (IHC), Western Blotting (WB), Immunofluorescence (fixed cells) (IF/ICC), Immunoprecipitation (IP)

Product Details

Purpose:	Anti-K+/Cl-Cotransporter (KCC2) Mouse Monoclonal Antibody
Immunogen:	Fusion protein consisting of aa 932-1043 of rat KCC2 (accession no. NP_599190).
Clone:	S1-12
Isotype:	IgG2a
Specificity:	This antibody recognizes human, mouse and rat KCC2.
Cross-Reactivity:	Human, Mouse, Rat
Purification:	Purified by Protein G affinity chromatography.

Target Details

Target:	SLC12A4
Alternative Name:	K+/Cl- Cotransporter (SLC12A4 Products)
Background:	Solute carrier family 12 member 5,Mediates electroneutral potassium-chloride cotransport in mature neurons and is required for neuronal Cl(-) homeostasis. As major extruder of intracellular chloride, it establishes the low neuronal Cl(-) levels required for chloride influx after binding of GABA-A and glycine to their receptors, with subsequent hyperpolarization and neuronal inhibition (PubMed:9930699). Involved in the regulation of dendritic spine formation and maturation (PubMed:22345354). {PubMed:22345354, PubMed:9930699}.,KCC2 is a member of the cation-chloride cotransporter gene family. KCCs lower intracellular chloride concentrations below the electrochemical equilibrium potential. Depending on the concentration gradients of potassium and chloride, KCC2 can operate as a net efflux or influx pathway. KCC2 is expressed at high levels in neurons throughout the nervous system and is localized at inhibitory synapses of the spinal cord. Studies in mice have shown that KCC2 reduces GABA's inhibitory signaling resulting in motor defects, epilepsy, and anxiety-like behavior.,Membrane, Multi-pass membrane protein.,Electroneutral potassium-chloride cotransporter 2, Furosemide-sensitive K-Cl cotransporter, K-Cl cotransporter 2, rKCC2, Neuronal K-Cl cotransporter
NCBI Accession:	NP_599190
UniProt:	Q63633

Application Details

Application Notes:	Immunoblotting: use at 3 µg/mL. A band of ~140 kDa is detected. Immunohistochemistry: use at 1-5 µg/mL. Positive control: Adult rat brain These are recommended concentrations, Enduser should determine optimal concentrations for their applications.
Restrictions:	For Research Use only

Handling

Format:	Liquid
Reconstitution:	Dilute in PBS or medium which is identical to that used in the assay system.
Concentration:	1.0 mg/mL

Handling

Buffer:	PBS, pH 7.4, 50 % glycerol, 0.09 % sodium azide
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	-20 °C
Storage Comment:	This antibody is stable for at least one (1) year at -20°C.