Datasheet for ABIN2484122
anti-KCC2 antibody (AA 932-1043) (PE)

3	Images

Overview

Quantity:	100 μg
Target:	KCC2 (SLC12A5)
Binding Specificity:	AA 932-1043
Reactivity:	Rat
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This KCC2 antibody is conjugated to PE
Application:	Western Blotting (WB), Immunohistochemistry (IHC), Immunoprecipitation (IP), Immunofluorescence (IF), Immunocytochemistry (ICC)

Product Details

Immunogen:	Fusion protein amino acids 932-1043 corresponding to rat KCC2
Clone:	S1-12
Isotype:	IgG2a
Specificity:	Detects ~140 kDa.
Cross-Reactivity:	Human, Mouse, Rat
Purification:	Protein G Purified

Target Details

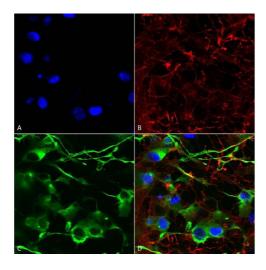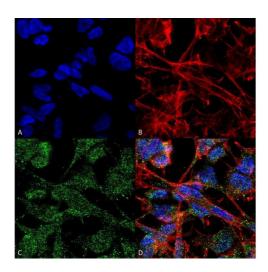|	
Target:	KCC2 (SLC12A5)

Target Details

Alternative Name:	KCC2 (SLC12A5 Products)
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.
Gene ID:	171373
NCBI Accession:	NP_599190
UniProt:	Q63633

Application Details

Application Notes:	• WB (1:1000) • IHC (1:300) • ICC/IF (1:100) • optimal dilutions for assays should be determined by the user.
Comment:	1 µg/ml of ABIN2484122 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.
Restrictions:	For Research Use only

Handling

Format:	Liquid
Concentration:	1 mg/mL
Buffer:	PBS pH 7.4, 50 % glycerol, 0.09 % sodium azide, Storage buffer may change when conjugated
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:	4 °C

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Handling

Storage Comment:	Conjugated antibodies should be stored at 4°C

Images

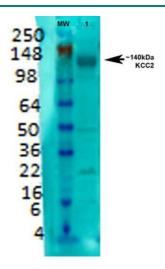

Immunocytochemistry

Image 1. Immunocytochemistry/Immunofluorescence analysis using Mouse Anti-KCC2 Monoclonal Antibody, Clone S1-12 (ABIN2484122). Tissue: Neuroblastoma cells (SH-SY5Y). Species: Human. Fixation: 4 % PFA for 15 min. Primary Antibody: Mouse Anti-KCC2 Monoclonal Antibody (ABIN2484122) at 1:200 for overnight at 4 °C with slow rocking. Secondary Antibody: AlexaFluor 488 at 1:1000 for 1 hour at RT. Counterstain: Phalloidin-iFluor 647 (red) F-Actin stain, Hoechst (blue) nuclear stain at 1:800, 1.6 mM for 20 min at RT. (A) Hoechst (blue) nuclear stain. (B) Phalloidin-iFluor 647 (red) F-Actin stain. (C) KCC2 Antibody (D) Composite.

Immunofluorescence (fixed cells)

Image 2. Immunocytochemistry/Immunofluorescence analysis using Mouse Anti-KCC2 Monoclonal Antibody, Clone S1-12 . Tissue: Neuroblastoma cell line (SK-N-BE). Species: Human. Fixation: 4% Formaldehyde for 15 min at RT. Primary Antibody: Mouse Anti-KCC2 Monoclonal Antibody at 1:100 for 60 min at RT. Secondary Antibody: Goat Anti-Mouse ATTO 488 at 1:200 for 60 min at RT. Counterstain: Phalloidin Texas Red F-Actin stain; DAPI (blue) nuclear stain at 1:1000, 1:5000 for 60 min at RT, 5 min at RT. Localization: Membrane. Magnification: 60X. (A) DAPI (blue) nuclear stain (B) Phalloidin Texas Red F-Actin stain (C) KCC2 Antibody (D) Composite.

Images

Western Blotting

Image 3. Western Blot analysis of Rat brain membrane lysate showing detection of KCC2 protein using Mouse Anti-KCC2 Monoclonal Antibody, Clone S1-12 . Primary Antibody: Mouse Anti-KCC2 Monoclonal Antibody at 1:1000.