

Rabbit Potassium Chloride Cotransporter (KCC2) (Ser940) Polyclonal Antibody | anti-KCC2 antibody

Anti-Phospho-Ser940 Potassium Chloride Cotransporter (KCC2)

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA72823	Rabbit	Bovine, Canine, Human, Non-Human Primate, Zebrafish	Western Blot

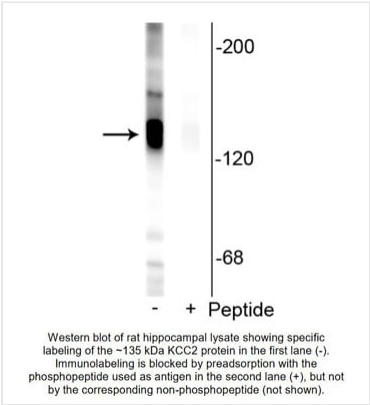
PRODUCT SYNONYMS

Potassium Chloride Cotransporter (KCC2) (Ser940); Polyclonal Antibody; Anti-Phospho-Ser940 Potassium Chloride Cotransporter (KCC2); anti-KCC2 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Bovine, Canine, Human, Non-Human Primate, Zebrafish
Clonality	Polyclonal
Specificity	Specific for the ~135k KCC2 protein phosphorylated at Ser940. Immunolabeling of the KCC2 protein band is blocked by the phospho-peptide used as antigen but not by the corresponding dephosphopeptide.
Purity/Purification	Antigen Affinity Purified from Pooled Serum (Prepared from pooled rabbit serum by affinity purification via sequential chromatography on phospho and non-phosphopeptide affinity columns.)
Form/Format	100 ul in 10 mM HEPES (pH 7.5), 150 mM NaCl, 100 ug per ml BSA and 50% glycerol. Adequate amount of material to conduct 10-mini Western Blots.
Sequence Length	1116
Applicable Applications for anti-KCC2 antibody	WB (Western Blot)
Species Tested	Mouse, Rat
Immunogen	Synthetic phospho-peptide corresponding to amino acid residues surrounding Ser940 of rat KCC2, conjugated to keyhole limpet hemocyanin (KLH).
Biological Significance	KCC2 is widely thought to be expressed exclusively in neurons where it is responsible for maintaining low intracellular chloride concentration to drive hyperpolarizing post-synaptic responses to the inhibitory neurotransmitters GABA and glycine. Serine 940 on KCC2 has been shown to be phosphorylated by PKC and has further been demonstrated to be the major site for PKC-dependent phosphorylation for full length KCC2 molecules when expressed in HEK-293 cells as phosphorylation of Ser940 increased the cell surface stability of KCC2 in this system by decreasing its rate of internalization from the plasma membrane (Lee et al., 2007).
Preparation and Storage	For long term storage -80°C is recommended, but shorter term storage at -20°C is also acceptable as aliquots may be taken without freeze/thawing due to the presence of 50% glycerol. Stock solutions for a minimum of 1 year at -20°C.

IMAGES



Application Data

ADDITIONAL INFORMATION

Related Product Information for anti-KCC2 antibody	Affinity purified rabbit polyclonal antibody
References	• Lee HH, Walker JA, Williams JR, Goodier RJ, Payne JA, Moss SJ (2007) Direct protein kinase C-dependent phosphorylation regulates the cell surface stability and activity of the potassium chloride cotransporter KCC2. J Biol Chem. 2007 Oct 12;282(41):29777-84 • Lee HH, Deeb TZ, Walker JA, Davies PA, Moss SJ (2011) NMDA receptor activity downregulates KCC2 resulting in depolarizing GABAA receptor-mediated currents. Nat Neurosci. Jun;14(6):736-43

NCBI AND UNIPROT INFORMATION

NCBI GI #	19705463
NCBI GeneID	171373
NCBI Accession #	NP_599190.1
NCBI GenBank Nucleotide #	NM_134363.1
UniProt Accession #	Q63633; A7Y821
Molecular Weight	135kDa
NCBI Official Full Name	solute carrier family 12 member 5
NCBI Official Synonym Full Names	solute carrier family 12 (potassium-chloride transporter), member 5
NCBI Official Symbol	Slc12a5
NCBI Official Synonym Symbols	Kcc2
NCBI Protein Information	solute carrier family 12 member 5; rKCC2; K-Cl cotransporter 2; neuronal K-Cl cotransporter; solute carrier family 12, member 5; neuronal-specific K-Cl cotransporter; furosemide-sensitive K-Cl cotransporter; electroneutral potassium-chloride cotransporter 2
UniProt Protein Name	Solute carrier family 12 member 5
UniProt Gene Name	Slc12a5
UniProt Synonym Gene Names	Kcc2; rKCC2
UniProt Entry Name	S12A5_RAT

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

