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

Anti-Phospho-Thr1007 Potassium Chloride Cotransporter (KCC2) Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA72760	**Rabbit**	**Mouse, RatExpected Reactivity: Bovine, Human, Non-human primate, Sheep**	**Western Blot**

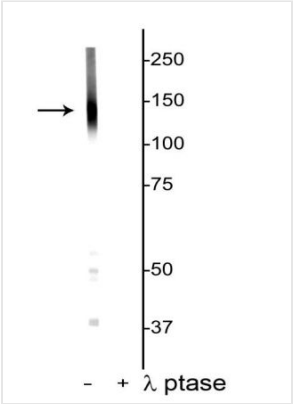
PRODUCT SYNONYMS

Potassium Chloride Cotransporter (KCC2); Polyclonal Antibody; Anti-Phospho-Thr1007 Potassium Chloride Cotransporter (KCC2) Antibody; anti-KCC2 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Mouse, Rat Expected Reactivity: Bovine, Human, Non-human primate, Sheep
Clonality	Polyclonal
Specificity	Specific for endogenous levels of the ~135k KCC2 protein phosphorylated at Thr^{1007}. Immunolabeling is completely blocked by ?-Ptase.
Purity/Purification	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)
Immunogen Species	Rat
Immunogen	Synthetic phospho-peptide corresponding to amino acid residues surrounding Thr1007 of rat KCC2, conjugated to keyhole limpet hemocyanin (KLH).
Quality Control Tests	Western blots performed on each lot.
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. Stable for at least 1 year at -20°C.

IMAGES



WB (Western Blot)
Western blot of rat hippocampal lysate showing specific labeling of the ~135 kDa KCC2 protein phosphorylated at Thr1007 in the first lane (-). Phosphospecificity is shown in the second lane (+) where immunolabeling is completely eliminated by blot treatment with lambda phosphatase (lambda-Ptase, 1200 units for 30 min).

ADDITIONAL INFORMATION

Related Product Information for anti-KCC2 antibody	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 (Lee et al., 2007). KCC2 is expressed in most adult neurons, and expression levels correlate well with the maturation state of neurons. N-ethylmaleimide (NEM) has been show to increase phosphorylation of the Ser940 residue, while decreasing phosphorylation of T1007 residue. Dephosphorylation of residues T906 and T1007 correlates with increased KCC2 activity (Moss et al., 2017).
References	1. Conway, L.C., Cardarelli, R.A., Moore, Y.E., Jones, K., McWilliams, L.J., Baker, D.J., Burnham, M.P., Bürli, R.W., Wang, Q., Brandon, N.J. and Moss, S.J., 2017. N-ethylmaleimide increases KCC2 activity by modulating transporter phosphorylation. Journal of Biological Chemistry, pp.jbc-M117. 2. 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.

NCBI AND UNIPROT INFORMATION

NCBI GI #	19705463
NCBI GeneID	171373
NCBI Accession #	NP_599190.1
NCBI GenBank Nucleotide #	NM_134363.1
UniProt Accession #	Q63633
Molecular Weight	~135 kDa
NCBI Official Full Name	solute carrier family 12 member 5
NCBI Official Synonym Full Names	solute carrier family 12 member 5
NCBI Official Symbol	Slc12a5
NCBI Official Synonym Symbols	Kcc2
NCBI Protein Information	solute carrier family 12 member 5
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.

AAA Biotech | Tel: +1 (619) 604-9440 | Fax: +1 (619) 604-9441 | contact@aaabiotech.com
Online datasheet: https://stage.aaabiotech.com/polyclonal/potassium-chloride-cotransporter-kcc2-antibody-western-blot-elisa/72760