



Rabbit Anti-KCC4 antibody

SL12170R

Product Name:	KCC4
Chinese Name:	钾氯离子TransporterKCC4抗体
Alias:	D13Ert261e; Electroneutral potassium-chloride cotransporter 4; Furosemide sensitive KCl cotransporter 4; K Cl cotransporter KCC4; K-Cl cotransporter 4; Potassium/chloride transporter KCC4; S12A7_HUMAN; SLC12A7; Solute carrier family 12 (potassium/chloride transporters), member 7; Solute carrier family 12 member 7; Solute carrier family 12, member 7.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Pig,Horse,
Applications:	WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800ICC=1:100-500IF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	119kDa
Cellular localization:	The cell membrane
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human KCC4:421-520/1083<Extracellular>
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed
Product Detail:	The four isoforms of potassium/chloride co-transport channels (KCC) belong to a superfamily of cation-chloride co-transporters involved in cell volume maintenance.

Nitric oxide (NO) donors activate KCCs, while inhibitors of the cGMP pathway prevent NO donor activation. The ubiquitously expressed KCC1 contains 12 transmembrane domains with both cytoplasmic N and C terminal domains. KCC2 expression is limited to neuronal tissues by a restrictive element similar to the neuronal-restrictive silencing factor. In neurons, KCC2 expression is correlated with an inhibitory response to GABA, while the absence of KCC2 is necessary for an unusual excitatory response to GABA. Alterations of KCC2 expression in the inferior colliculus of rat brain may be related to seizure susceptibility. Conversely, KCC3 is not suspected to play a major role in epilepsy. The two splice variants of KCC3, KCC3a and KCC3b, are predominantly expressed in brain and kidney, respectively, while KCC4 is expressed in muscle, brain, lung, heart and kidney.

Function:

Mediates electroneutral potassium-chloride cotransport when activated by cell swelling. May mediate K(+) uptake into Deiters' cells in the cochlea and contribute to K(+) recycling in the inner ear. Important for the survival of cochlear outer and inner hair cells and the maintenance of the organ of Corti. May be required for basolateral Cl(-) extrusion in the kidney and contribute to renal acidification.

Subcellular Location:

Membrane; Multi-pass membrane protein.

Tissue Specificity:

Detected in muscle, brain, lung, heart and kidney.

Similarity:

Belongs to the SLC12A transporter family.

SWISS:

Q9Y666

Gene ID:

10723

Database links:

[Entrez Gene: 10723](#)Human

[Entrez Gene: 20499](#)Mouse

[Entrez Gene: 308069](#)Rat

[Omim: 604879](#)Human

[SwissProt: Q9Y666](#)Human

[SwissProt: Q9WVL3](#)Mouse

[SwissProt: Q5RK27](#)Rat

[Unigene: 172613](#)Human

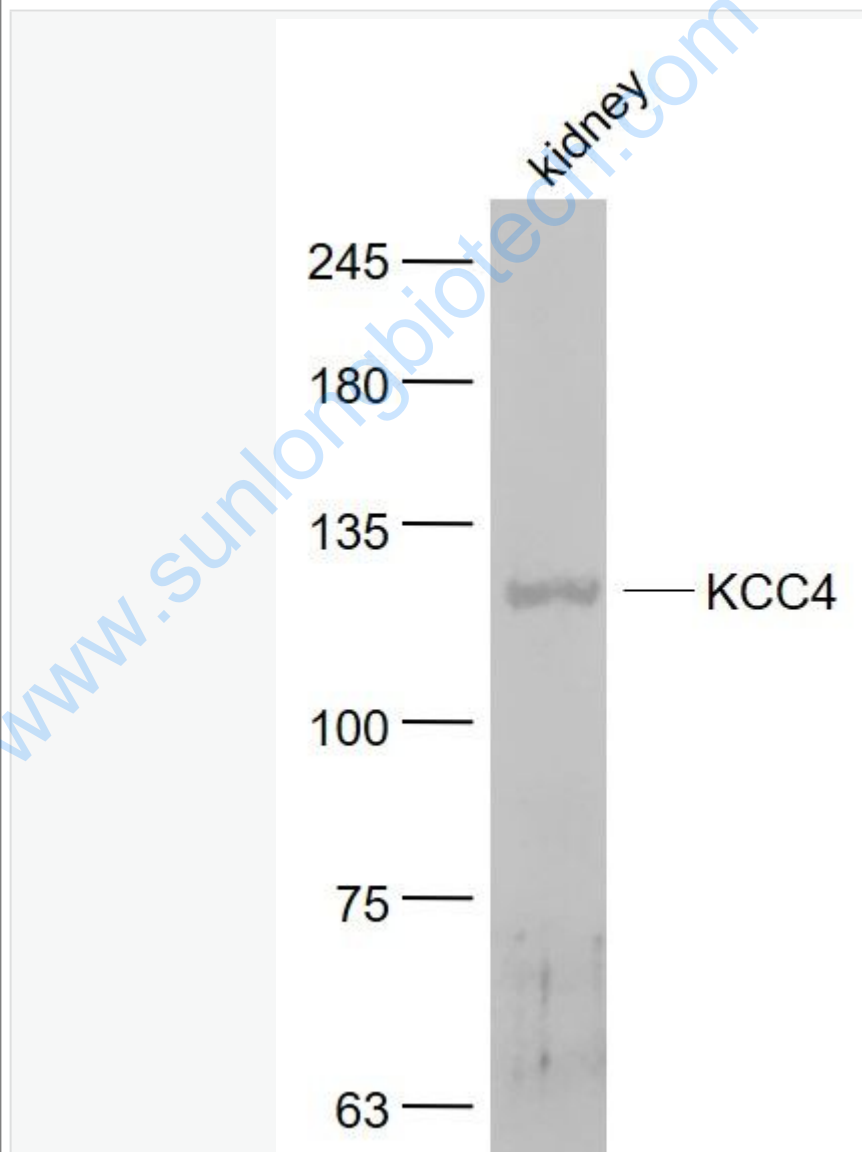
[Unigene: 275800](#)Mouse

[Unigene: 64199](#)Rat

Important Note:

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

Picture:



Sample:

Kidney (Mouse) Lysate at 40 ug

Primary: Anti- KCC4 (SL12170R) at 1/1000 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 119 kD

Observed band size: 119 kD

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