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KCC4 Rabbit pAb

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Catalog # AP54760

Product Information

Application	WB
Primary Accession	Q9Y666
Reactivity	Mouse
Predicted	Rat, Pig, Human, Horse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	119106
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human KCC4
Epitope Specificity	421-520/1083
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Membrane; Multi-pass membrane protein.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	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.

Additional Information

Gene ID	10723
Other Names	Solute carrier family 12 member 7, Electroneutral potassium-chloride cotransporter 4, K-Cl cotransporter 4, SLC12A7 (HGNC:10915)
Dilution	WB=1:500-2000
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. 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.

Protein Information

Name SLC12A7 (HGNC:10915)

Function Mediates electroneutral potassium-chloride cotransport when activated by cell swelling (PubMed:10913127). 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 (By similarity).

Cellular Location Cell membrane; Multi-pass membrane protein

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

Background

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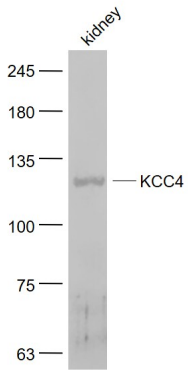
Images



Sample:
Kidney (Mouse) Lysate at 40 ug
Primary: Anti- KCC4 (AP54760) at 1/1000 dilution
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution
Predicted band size: 119 kD
Observed band size: 119 kD