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SLC5A12 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP10330b

Product Information

Application	IHC-P, FC, WB, E
Primary Accession	Q1EHB4
Other Accession	NP_848593.2
Reactivity	Human
Predicted	Rabbit
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB27881
Calculated MW	67647
Antigen Region	576-605

Additional Information

Gene ID	159963
Other Names	Sodium-coupled monocarboxylate transporter 2, Electroneutral sodium monocarboxylate cotransporter, Low-affinity sodium-lactate cotransporter, Solute carrier family 5 member 12, SLC5A12, SMCT2
Target/Specificity	This SLC5A12 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 576-605 amino acids from the C-terminal region of human SLC5A12.
Dilution	IHC-P~~1:100~500 FC~~1:10~50 WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	SLC5A12 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	SLC5A12 (HGNC:28750)

Function	Acts as an electroneutral and low-affinity sodium Na(+)- dependent sodium-coupled solute transporter (PubMed:17692818). Catalyzes the transport across the plasma membrane of many monocarboxylates such as lactate, pyruvate, nicotinate, propionate, butyrate and beta-D-hydroxybutyrate (By similarity). May be responsible for the first step of reabsorption of monocarboxylates from the lumen of the proximal tubule of the kidney and the small intestine. May play also a role in monocarboxylates transport in the retina (By similarity). Probably part of D-serine transport systems involved in D- serine reabsorption at the brush border of renal proximal tubules.
Cellular Location	Apical cell membrane; Multi-pass membrane protein. Note=Detected at the brush border membrane of the kidney. Colocalizes with viementin in Mueller cells {ECO:0000250|UniProtKB:Q49B93}

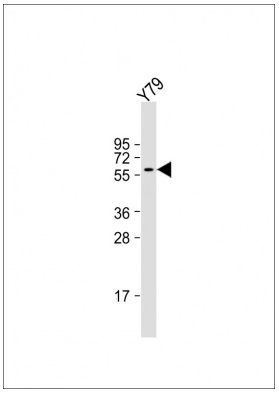
Background

Normal blood lactate is maintained at about 1.5 mM, and little filtered lactate is excreted in urine. Reabsorption of lactate is mediated by the low-affinity Na(+)-coupled lactate transporter SLC5A12 in the initial part of the proximal tubule and by the high-affinity Na(+)-coupled lactate transporter SLC5A8 (MIM 608044) in the distal proximal tubule (Gopal et al., 2007 [PubMed 17692818]).

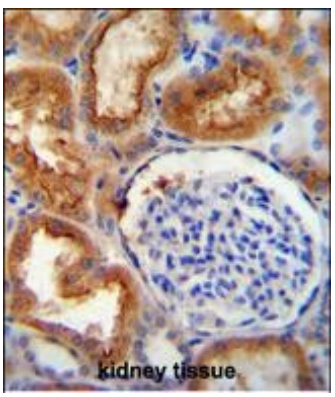
References

Gopal, E., et al. Biochim. Biophys. Acta 1768(11):2690-2697(2007)

Images

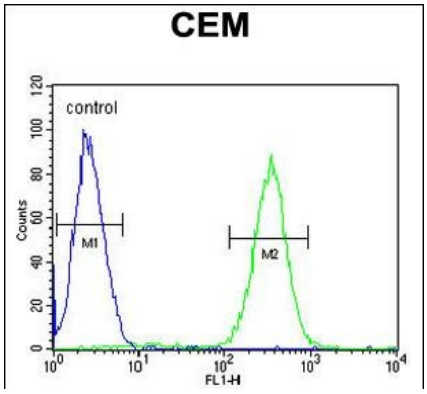


Anti-SLC5A12 Antibody (C-term) at 1:2000 dilution + Y79 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 68 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



SLC5A12 antibody (C-term) (Cat. #AP10330b) immunohistochemistry analysis in formalin fixed and paraffin embedded human kidney tissue followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of the SLC5A12 antibody (C-term) for immunohistochemistry. Clinical relevance has not been evaluated.

SLC5A12 Antibody (C-term) (Cat. #AP10330b) flow cytometric analysis of CEM cells (right histogram) compared to a negative control cell (left



histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.