

碳酸氢钠协同转运蛋白 4-A4 抗体

产品货号： mIR21660

英文名称： SLC4A4

中文名称： 碳酸氢钠协同转运蛋白 4-A4 抗体

别名： DKFZp781H1314; Electrogenic sodium bicarbonate cotransporter 1; hhNMC; HNBC 1; HNBC1; kNBC 1; KNBC; kNBC1; Na(+)/HCO₃(-) cotransporter; Na+HCO₃- cotransporter 4; NBC 1; NBC 2; NBC1; NBC2; Nbc4; NBCE 1; NBCE1; PNBC; SLC4A5; Sodium bicarbonate cotransporter kidney; sodium bicarbonate cotransporter member 4; Sodium bicarbonate cotransporter pancreas; Solute carrier family 4 member 4; solute carrier family 4 sodium bicarbonate cotransporter member 4; Solute carrier family 4 sodium bicarbonate cotransporter member 5.

研究领域： 通道蛋白 转运蛋白

抗体来源： Rabbit

克隆类型： Polyclonal

交叉反应： Human, Mouse, Rat, Chicken, Dog, Pig, Cow, Horse, Rabbit, Sheep,

产品应用： WB=1:500-2000 ELISA=1:500-1000

not yet tested in other applications.

optimal dilutions/concentrations should be determined by the end user.

分子量： 119kDa

细胞定位： 细胞膜

性 状： Lyophilized or Liquid

浓 度： 1mg/ml

免 疫 原： KLH conjugated synthetic peptide derived from human SLC4A4 :211-310/1079 <Cytoplasmic>

亚 型： IgG

纯化方法： affinity purified by Protein A

储 存 液： 0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.

保存条件： 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

产品介绍： SLC4A4 (Electrogenic sodium bicarbonate cotransporter 1) is an electrogenic sodium/bicarbonate cotransporter with a Na(+):HCO₃(-) stoichiometry varying from 1:2 to 1:3. It may regulate bicarbonate influx/efflux at the basolateral membrane of cells and regulate intracellular pH. SLC4A4 interacts with carbonic anhydrase 2 and carbonic anhydrase 4 which may regulate transporter activity. There are four named isoforms produced by alternative splicing.

This gene encodes a sodium bicarbonate cotransporter (NBC) involved in the regulation of bicarbonate secretion and absorption and intracellular pH. Mutations in this gene are associated with proximal renal tubular acidosis. Multiple transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Oct 2008].

Function:

Electrogenic sodium/bicarbonate cotransporter with a Na(+):HCO₃(-) stoichiometry varying from 1:2 to 1:3. May regulate bicarbonate influx/efflux at the basolateral membrane of cells and regulate intracellular pH.

Subunit:

Interacts with CA2/carbonic anhydrase 2 and CA4/carbonic anhydrase 4 which may regulate transporter activity.

Subcellular Location:

Basolateral cell membrane; Multi-pass membrane protein.

Tissue Specificity:

Isoform 1 is expressed in pancreas and to a lower extent in heart, skeletal muscle, liver, parotid salivary glands, prostate, colon, stomach, thyroid, brain and spinal chord. Corneal endothelium cells express only isoform 1 (at protein level). Isoform 2 is specifically expressed in kidney at the level of proximal tubules.

Post-translational modifications:

Phosphorylation of Ser-1026 by PKA increases the binding of CA2 and changes the Na(+):HCO₃(-) stoichiometry of the transporter from 3:1 to 2:1. Phosphorylation of Thr-49 regulates isoform 1 conductance.

N-glycosylation is not necessary for the transporter basic functions.

DISEASE:

Defects in SLC4A4 are the cause of proximal renal tubular acidosis with ocular abnormalities (pRTA-OA) [MIM:604278]; also known as renal tubular acidosis II. Caused by an impairment of bicarbonate absorption in the proximal tubule, proximal renal tubular acidosis (pRTA) is characterized by a decreased renal HCO₃(-) threshold. pRTA-OA is an extremely rare autosomal recessive syndrome characterized by short stature, profound pRTA, mental retardation, bilateral glaucoma, cataracts and bandkeratopathy.

Note=Loss of interaction with and stimulation by CA4 is the cause of retinitis pigmentosa type 17 (RP17).

Similarity:

Belongs to the anion exchanger (TC 2.A.31) family.

SWISS:

O88343

Gene ID:

8671

Important Note:

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

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