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Code No.KE029

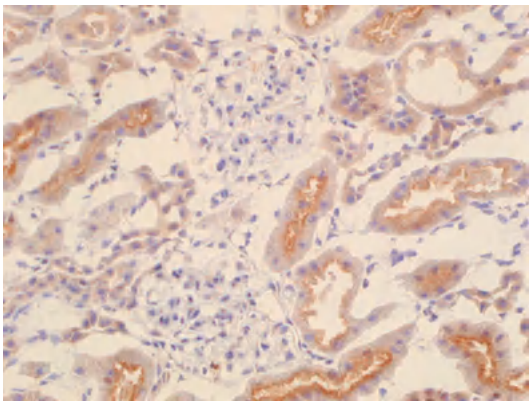
For research use only

Anti Rat $b^{0,+}$ -type Amino Acid Transporter (BAT1) Polyclonal Antibody

Mammalian amino acid transport system is consisted of large variety of transporters with the reflection of amino acid molecule variety, and is classfied into various transport systems by the transportative substrate selectivity and the Na^+ dependence with the reflection of amino acid molecule variety.
Related to $b^{0,+}$ amino acid transporter (rBAT) is identified amino acid transporter that is associated with the cystinuria-related type II membrane glycoprotein. It induces Na^+-independent transport of cystine as well as basic and neutral amino acids with the properties of $b^{0,+}$ amino acid transporter 1 (BAT1) . rBAT1 was found to be related to the genetic disease cystinuria, in which defects in amino acid reabsorption in the renal proximal tubules lead to urinary loss of cystine and basic amino acids. The BAT1 and rBAT proteins were shown to be colocalized in the apical membrane of the renal proximal tubules where massive cystine transport had been proposed, and BAT1 is associated with rBAT to express its function.
This antidody has been proved to be useful for immunohistochemistry and immunoblotting.

Package Size	200 μg (400 μL / vial)
Format	Rabbit polyclonal antibody 0.5 mg/ml
Buffer	Block Ace as a stabilizer, containing 0.1%Proclin as bacteriostat
Storage	Store below -20℃
	Once thawed, store at 4℃. Repeated freeze-thaw cycles should be avoided.
Purification method	This antibody was purified from rabbit serum immunized with synthesized peptide of rat rBAT by protein G affinity chromatography.

Working dilution for immunohistochemistry: 30-50 μg/mL, for immuoblotting: 2-10 μg/mL



Rat Kidney (frozen section)

Luminal side of renal tubule are positively stained.

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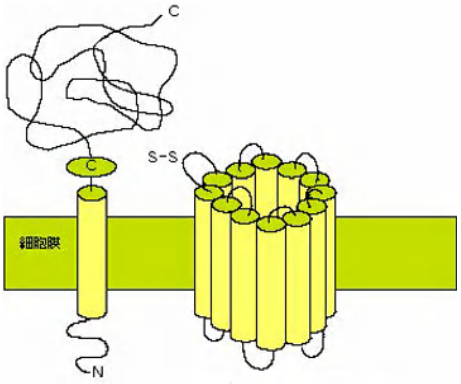

rBAT BAT1

Heterodimeric Complex

【Reference】

1. Chairoungdua A., Segawa H., Kim J.Y., Miyamoto K., Haga H., Fukui Y., Mizoguchi K., Ito H., Takeda E., Endou H.and Kanai Y.: Identification of an Amino Acid Transporter Associated with the Cystinuria -related Type II Membrane Glycoprotein. *J.Biol.Chem.* 274 (41) 28845-28848,1999
2. Mizoguchi K., Cha S.H., Chairoungdua A., Kim D.K., Shigeta Y., Matsuo H., Fukushima J., Awa Y., Akakura K., Goya T., Ito H., Endou H.,and Kanai Y.:Human cystinuria-related transporter :Localization and functional characterization.*Kidney Int.*59.1821-1833, 2001

Supplier

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