Trans Genic Inc.

Code No.KE030

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# Anti Rat Related to $b^{0,+}$ Amino Acid Transporter (rBAT) Polyclonal Antibody

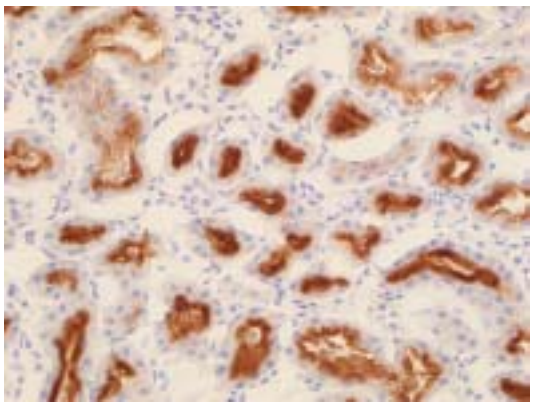
Mammalian amino acid transport system is consisted of large variety of transporters with the reflection of amino acid molecule variety, and is classfied into various transport systems by the transportative substrate selectivity and the $Na^+$ dependence with the reflection of amino acid molecule variety.
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 | 25 μg (250 μL / vial) |
| Format | Rabbit polyclonal antibody 0.1mg/ml |
| Buffer | Block Ace as a stabilizer, containing 0.1%Proclin as bacteriostat |
| Storage | Store below -20℃<br>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 peptide affinity chromatography. |

Working dilution for immunohistochemistry: 0.1 - 0.5 μg/mL, for immuoblotting: 0.01-0.1 μg/mL

HGNC Name SLC3A1(Solute Carrier family 3A1)

※HGNC: Human Gene Nomenclature Committee



Rat Kidney (frozen section)

Luminal side of renal tubule are positively stained.

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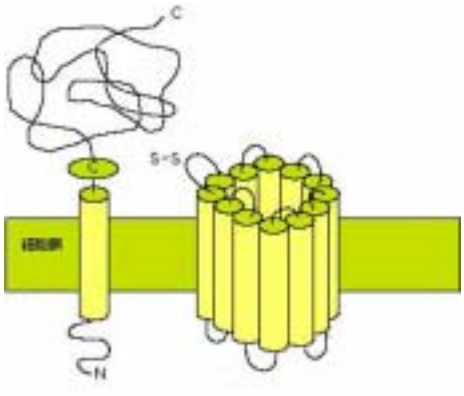

rBAT BAT1

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



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