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SLC7A9 Rabbit pAb

Catalog # AP96631

Product Information

Application	WB
Primary Accession	P82251
Other Accession	P82251
Reactivity	Human
Predicted	Rat, Mouse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	53481
Physical State	Liquid
Immunogen	Recombinant human SLC7A9 protein
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS(pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the amino acid-polyamine-organocation (APC) superfamily.
SUBUNIT	Disulfide-linked heterodimer with the amino acid transport protein SLC3A1.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	SLC7A9 belongs to the amino acid-polyamine-organocation (APC) superfamily. It is a disulfide linked heterodimer with the amino acid transport protein SLC3A1. SLC7A9 is involved in the high affinity, sodium independent transport of cystine and neutral and dibasic amino acids (system b(0,+)-like activity). Thought to be responsible for the high affinity reabsorption of cystine in the kidney tubule. Defects in SLC7A9 are a cause of non type I cystinuria (CSNU). CSNU arises from impaired transport of cystine and dibasic amino acids through the epithelial cells of the renal tubule and gastrointestinal tract. Three types of cystinuria have been described: type I (fully recessive or silent); type II (high excretor); type III (moderate excretor). Defects in SLC7A9 are associated with type II and type III cystinuria. They also might account for some non classic type I cystinuria cases.

Additional Information

Gene ID	11136
Other Names	BAT1; CSNU3; BAT1_HUMAN; SLC7A9; b(0, +)AT1; Glycoprotein-associated amino acid transporter b0, +AT1; Solute carrier family 7 member 9; Q3UQE3_MOUSE; BAT1_MOUSE; BAT1_RAT; b(0, +)AT; Q4KM04_RAT; solute carrier family 7 (amino acid transporter light chain, bo, + system), member 9; cystinuria type 3; b(0, +)-type amino acid transporter 1
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	SLC7A9 {ECO:0000303|PubMed:10471498}
Synonyms	BAT1
Function	Associates with SLC3A1 to form a functional transporter complex that mediates the electrogenic exchange between cationic amino acids and neutral amino acids, with a stoichiometry of 1:1 (PubMed:16825196, PubMed:32494597, PubMed:32817565, PubMed:8663357). Has system b(0,+)-like activity with high affinity for extracellular cationic amino acids and L-cystine and lower affinity for intracellular neutral amino acids (PubMed:16825196, PubMed:32494597, PubMed:8663357). Substrate exchange is driven by high concentration of intracellular neutral amino acids and the intracellular reduction of L-cystine to L- cysteine (PubMed:8663357). Required for reabsorption of L-cystine and dibasic amino acids across the brush border membrane in renal proximal tubules.
Cellular Location	Apical cell membrane; Multi-pass membrane protein. Cell membrane; Multi-pass membrane protein
Tissue Location	Expressed in the brush border membrane in the kidney (at protein level). Kidney, small intestine, liver and placenta

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