

Anti-Solute Carrier Family 22 Member 5 Antibody

Catalog # ABO11484

Product Information

Application	WB
Primary Accession	Q9Z0E8
Host	Rabbit
Reactivity	Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for Solute carrier family 22 member 5(SLC22A5) detection. Tested with WB in Mouse;Rat.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	20520
Other Names	Solute carrier family 22 member 5, High-affinity sodium-dependent carnitine cotransporter, Organic cation/carnitine transporter 2, Slc22a5, Octn2
Calculated MW	62780
Application Details	Western blot, 0.1-0.5 µg/ml, Mouse, Rat
Subcellular Localization	Apical cell membrane ; Multi-pass membrane protein . Colocalizes with PDZK1 on apical membranes of kidney proximal tubules.
Tissue Specificity	Widely expressed. Expressed in kidney, liver and testis. .
Source	Eukaryota
Protein Name	Solute carrier family 22 member 5
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.05mg Thimerosal, 0.05mg Na ₃ .
Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of mouse Solute carrier family 22 member 5(531-547aa KQWQIQSQTRMQKDGE), different from the related rat sequence by two amino acids.
Purification	Immunogen affinity purified.
Cross Reactivity	No cross reactivity with other proteins
Storage	At -20° C for one year. After r° Constitution, at 4° C for one month. It° Can also

be aliquotted and stored frozen at -20 °C for a longer time.Avoid repeated freezing and thawing.

Protein Information

Name	Slc22a5 {ECO:0000312 MGI:MGI:1329012}
Function	Sodium-ion dependent, high affinity carnitine transporter. Involved in the active cellular uptake of carnitine. Transports one sodium ion with one molecule of carnitine (PubMed: 10454528 , PubMed: 20722056). Also transports organic cations such as tetraethylammonium (TEA) without the involvement of sodium. Also relative uptake activity ratio of carnitine to TEA is 11.3 (PubMed: 10454528). May also contribute to regulate the transport of organic compounds in testis across the blood-testis-barrier (By similarity).
Cellular Location	Apical cell membrane; Multi-pass membrane protein. Basal cell membrane {ECO:0000250 UniProtKB:O76082}; Multi-pass membrane protein. Cell membrane {ECO:0000250 UniProtKB:O76082}; Multi-pass membrane protein {ECO:0000250 UniProtKB:O76082}. Note=Colocalizes with PDZK1 on apical membranes of kidney proximal tubules (PubMed:15523054) In intestinal cells, apical expression is induced by TNF (PubMed:20722056).
Tissue Location	Widely expressed. Expressed in kidney, liver and testis (PubMed:11010964). Expressed at the brush border of the small, large intestine and colon (at protein level) (PubMed:11010964, PubMed:20722056).

Background

Solute carrier family 22(organic cation/carnitine transporter), member 5, also called SLC22A5 or OCTN2 is a membrane transport protein associated with primary carnitine deficiency. This gene is mapped to 5q31.1. Polyspecific organic cation transporters in the liver, kidney, intestine, and other organs are critical for elimination of many endogenous small organic cations as well as a wide array of drugs and environmental toxins. The encoded protein is a plasma integral membrane protein which functions both as an organic cation transporter and as a sodium-dependent high affinity carnitine transporter. The encoded protein is involved in the active cellular uptake of carnitine. Mutations in this gene are the cause of systemic primary carnitine deficiency(CDSP), an autosomal recessive disorder manifested early in life by hypoketotic hypoglycemia and acute metabolic decompensation, and later in life by skeletal myopathy or cardiomyopathy.

Images



Anti-Solute carrier family 22 member 5 antibody, ABO11484, Western blotting
Lane 1: Rat Kidney Tissue Lysate
Lane 2: Rat Skeletal Muscles Tissue Lysate
Lane 3: Mouse Liver Tissue Lysate
Lane 4: HEPA Cell Lysate
Lane 5: NIH3T3 Cell Lysate