10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

SLC5A8 antibody - middle region

Rabbit Polyclonal Antibody
Catalog # AI12377

Product Information

Application	WB
Primary Accession	Q8N695
Other Accession	NM_145913, NP_666018
Reactivity	Human, Mouse, Rat, Rabbit
Predicted	Rat, Rabbit
Host	Rabbit
Clonality	Polyclonal
Calculated MW	66578

Additional Information

Gene ID	160728
Alias Symbol	AIT, MGC125354, SMCT, SMCT1
Other Names	Sodium-coupled monocarboxylate transporter 1, Apical iodide transporter, Electrogenic sodium monocarboxylate cotransporter, Sodium iodide-related cotransporter, Solute carrier family 5 member 8, SLC5A8 {ECO:0000312|EMBL:AAP46193.1}
Format	Liquid. Purified antibody supplied in 1x PBS buffer with 0.09% (w/v) sodium azide and 2% sucrose.
Reconstitution & Storage	Add 50 ul of distilled water. Final anti-SLC5A8 antibody concentration is 1 mg/ml in PBS buffer with 2% sucrose. For longer periods of storage, store at 20°C. Avoid repeat freeze-thaw cycles.
Precautions	SLC5A8 antibody - middle region is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	SLC5A8 {ECO:0000312|EMBL:AAP46193.1}
Function	Acts as an electrogenic sodium (Na(+)) and chloride (Cl-)- dependent sodium-coupled solute transporter, including transport of monocarboxylates (short-chain fatty acids including L-lactate, D- lactate, pyruvate, acetate, propionate, valerate and butyrate), mocarboxylate drugs (nicotinate, benzoate, salicylate and 5- aminosalicylate) and ketone bodies (beta-D-hydroxybutyrate, acetoacetate and alpha-ketoisocaproate), with a Na(+):substrate stoichiometry of between 4:1 and 2:1 (PubMed:14966140, PubMed:15090606, PubMed:16729224, PubMed:16805814,

PubMed:17178845, PubMed:17245649, PubMed:17526579, PubMed:20211600, PubMed:30604288). Catalyzes passive carrier mediated diffusion of iodide (PubMed:12107270). Mediates iodide transport from the thyrocyte into the colloid lumen through the apical membrane (PubMed:12107270). May be responsible for the absorption of D- lactate and monocarboxylate drugs from the intestinal tract (PubMed:17245649). Acts as a tumor suppressor, suppressing colony formation in colon cancer, prostate cancer and glioma cell lines (PubMed:12829793, PubMed:15867356, PubMed:18037591). May play a critical role in the entry of L-lactate and ketone bodies into neurons by a process driven by an electrochemical Na(+) gradient and hence contribute to the maintenance of the energy status and function of neurons (PubMed:16805814). Mediates sodium-coupled electrogenic transport of pyroglutamate (5-oxo-L-proline) (PubMed:20211600). Can mediate the transport of chloride, bromide, iodide and nitrate ions when the external concentration of sodium ions is reduced (PubMed:19864324). Part of D-serine transport systems. May contribute to D-serine reabsorption at the brush border of renal proximal tubules thus modulating the dynamics of urinary versus blood D-serine levels.

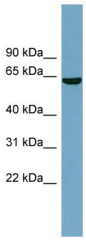
Cellular Location

Apical cell membrane; Multi-pass membrane protein. Note=Expressed at the apical membrane of tall thyrocytes, colonic epithelial cells and proximal tubule epithelial cells.

Tissue Location

Expressed in normal thyroid, localized at the apical pole of thyroid cells facing the colloid lumen, but expression profoundly decreased in thyroid carcinomas. Expressed in normal colon but absent in colon aberrant crypt foci and colon cancers. Present in normal kidney cortex, brain, prostate, gastric mucosa and breast tissue but was significantly down-regulated in primary gliomas, gastric cancer, prostate tumors and breast tumors

Images



WB Suggested Anti-SLC5A8 Antibody Titration: 0.2-1 µg/ml
Positive Control: OVCAR-3 cell lysate

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