

SLC23A1 Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP12718a

Specification

SLC23A1 Antibody (N-term) - Product Information

Application Primary Accession Other Accession Reactivity Host Clonality Isotype Antigen Region IHC-P-Leica, WB,E <u>O9UHI7</u> <u>NP_005838.3</u> Human Rabbit Polyclonal Rabbit IgG 1-30

SLC23A1 Antibody (N-term) - Additional Information

Gene ID 9963

Other Names Solute carrier family 23 member 1, Na(+)/L-ascorbic acid transporter 1, Sodium-dependent vitamin C transporter 1, hSVCT1, Yolk sac permease-like molecule 3, SLC23A1, SVCT1, YSPL3

Target/Specificity

This SLC23A1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 1-30 amino acids from the N-terminal region of human SLC23A1.

Dilution IHC-P-Leica \sim 1:500 WB \sim 1:1000-1:2000 E \sim Use at an assay dependent concentration.

Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

SLC23A1 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

SLC23A1 Antibody (N-term) - Protein Information

Name SLC23A1 (<u>HGNC:10974</u>)



Function Sodium:ascorbate cotransporter. Mediates electrogenic uptake of vitamin C, with a stoichiometry of 2 Na(+) for each ascorbate (PubMed:<u>10556483</u>, PubMed:<u>10556521</u>, PubMed:<u>10631088</u>, PubMed:<u>36749388</u>). Has retained some ancestral activity toward nucleobases such as urate, an oxidized purine. Low-affinity high-capacity sodium:urate cotransporter, may regulate serum urate levels by serving as a renal urate re-absorber (PubMed:<u>36749388</u>).

Cellular Location Cell membrane; Multi-pass membrane protein

Tissue Location

Highly expressed in adult small intestine, kidney, thymus, ovary, colon, prostate and liver, and in fetal kidney, liver and thymus.

SLC23A1 Antibody (N-term) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- <u>Western Blot</u>
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

SLC23A1 Antibody (N-term) - Images



SLC23A1 Antibody (N-term) (Cat. #AP12718a) western blot analysis in HepG2(lane 1),NCI-H292(lane 2) cell line lysates (35ug/lane).This demonstrates the SLC23A1 antibody detected the SLC23A1 protein (arrow).





All lanes : Anti-SLC23A1 Antibody (N-term) at 1:1000-1:2000 dilution Lane 1: Caki-1 whole cell lysate Lane 2: HT-29 whole cell lysate Lane 3: SW480 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 65 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



Immunohistochemical analysis of paraffin-embedded human small intestine tissue using AP12718a performed on the Leica® BOND RXm. Tissue was fixed with formaldehyde at room temperature, antigen retrieval was by heat mediation with a EDTA buffer (pH9. 0). Samples were incubated with primary antibody(1:500) for 1 hours at room temperature. A undiluted biotinylated CRF Anti-Polyvalent HRP Polymer antibody was used as the secondary antibody.

SLC23A1 Antibody (N-term) - Background

The absorption of vitamin C into the body and its distribution to organs requires two sodium-dependent vitamin C transporters. This gene encodes one of the two transporters. The encoded protein is active in bulk vitamin C transport involving epithelial surfaces. Previously, this gene had an official symbol of SLC23A2. Alternatively spliced transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq].



SLC23A1 Antibody (N-term) - References

Timpson, N.J., et al. Am. J. Clin. Nutr. 92(2):375-382(2010) Liu, C.Y., et al. Carcinogenesis 31(7):1259-1263(2010) Guey, L.T., et al. Eur. Urol. 57(2):283-292(2010) Michels, A.J., et al. Am. J. Physiol., Cell Physiol. 297 (5), C1220-C1227 (2009) : Cahill, L.E., et al. J Nutrigenet Nutrigenomics 2(6):292-301(2009) **SLC23A1 Antibody (N-term) - Citations**

- Inhibition of intestinal ascorbic acid uptake by lipopolysaccharide is mediated via transcriptional mechanism(s).
- <u>Glyoxalate reductase/hydroxypyruvate reductase interacts with the sodium-dependent</u> vitamin C transporter-1 to regulate cellular vitamin C homeostasis.