Anti-SLC31A1 Rabbit mAb

Purified Recombinant Rabbit Monoclonal Antibody

Catalog # R010594

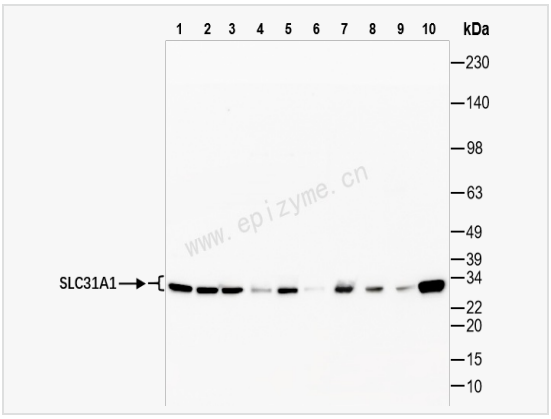
Product Information

Application	WB, ELISA
Reactivity	Human, Mouse, Rat
Dilution	WB 1:1,000~1:2,000
Host	Rabbit
Clonality	Monoclonal
Clone No.	44L05K08
Isotype	IgG
Label	Unconjugated
Immunogen	A synthesized peptide derived from human SLC31A1/CTR1
Format	Affinity purified monoclonal antibody supplied in PBS with 0.02% sodium azide and 50% glycerol, pH 7.3.
Storage	Shipped on wet ice. Store at -20°C. Stable for 24 months from date of receipt. Aliquoting is unnecessary for -20°C storage.
Precautions	Anti-SLC31A1 Rabbit mAb [44L05K08] is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Synonyms	COPT1; CTR1; SLC31A1; High affinity copper uptake protein 1; Copper transporter 1; Solute carrier family 31 member 1; hCTR1.
Calculated MW	Calculated MW: 21 kDa; Observed MW: 26-34 kDa
Uniprot ID	O15431
Gene ID	1317
Background	The protein encoded by this gene is a high-affinity copper transporter found in the cell membrane. The encoded protein functions as a homotrimer to effect the uptake of dietary copper. [provided by RefSeq, Aug 2011]
Cellular Location	Cell membrane.Multi-pass membrane protein.Early endosome membrane.Multi-pass membrane protein.Recycling endosome membrane.Multi-pass membrane protein.Apical cell membrane.Multi-pass membrane protein.Late endosome membrane.Multi-pass membrane protein.Basolateral cell membrane.Multi-pass membrane protein.The localization is controlled by the intra and extra-cellular copper concentration (PubMed:15326162, PubMed:19740744, PubMed:23658018, PubMed:26205368, PubMed:26945057). Under conditions of elevated extracellular copper concentrations, it is rapidly internalized by endocytosis from the plasma membrane by a clathrin- and dynamin-mediated process and degradated in order to prevent intracellular copper accumulation and to reduce the transport of the copper across the membrane (PubMed:15326162, PubMed:19740744, PubMed:23658018, PubMed:26205368, PubMed:26945057). The internalized SLC31A1 is then localized in early endosomes, and, upon a low extracellular copper concentrations, it is transported back to the plasma membrane in a RAB11A-dependent recycling pathway (PubMed:26945057). Localizes to the apical membrane in intestinal epithelial cells (By similarity). Mainly localized on the basolateral side of renal tubular cells (By similarity). Localizes to the neuronal cell body plasma membranes (By

Validation Images



Western Blot - Anti-SLC31A1 Rabbit mAb [44L05K08]
All lanes: R010594 at 1:1,000 dilution
Lane 1: HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysates
Lane 2: HepG2 (Human hepatocarcinoma epithelial cell) whole cell lysates
Lane 3: HCT116 (Human colorectal carcinoma epithelial cell) whole cell lysates
Lane 4: K562 (Human chronic myeloid leukemia cell) whole cell lysates
Lane 5: U87 (Human malignant glioblastoma epithelial cells) whole cell lysates
Lane 6: C2C12 (Mouse myoblasts epithelial cell) whole cell lysates
Lane 7: Mouse brain whole tissue lysates
Lane 8: PC-12 (Rat adrenal pheochromocytoma epithelial cell) whole cell lysates
Lane 9: Rat heart whole tissue lysates
Lane 10: Rat brain whole tissue lysates
Lysates/proteins at 10 µg per lane.
Secondary antibody: Goat Anti-Rabbit IgG (H+L), HRP Conjugated (Cat. No. LF102) at 1:5,000 dilution
Predicted band size: 21 kDa
Observed band size: 26-34 kDa
Developed using the ECL technique (Cat. No. SQ201).