

Human High Affinity Copper Uptake Protein 1 (SLC31A1) ELISA Kit | SLC31A1 elisa kit

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CATALOG #
AAA330814

REACTIVITY
Human

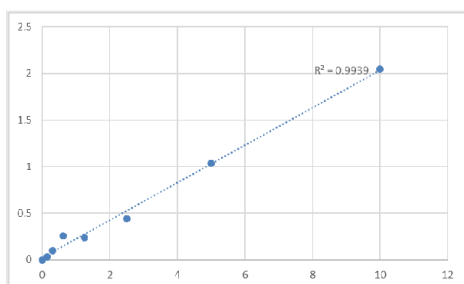
PRODUCT SYNONYMS

High Affinity Copper Uptake Protein 1 (SLC31A1); Human High Affinity Copper Uptake Protein 1 (SLC31A1) ELISA Kit; SLC31A1; COPT1; CTR1; MGC75487; hCTR1; copper transport 1 homolog; copper transporter 1; SLC31A1 elisa kit

PRODUCT SPECIFICATIONS

Reactivity	Human
Specificity	Human High affinity copper uptake protein 1 (SLC31A1) ELISA Kit has high sensitivity and excellent specificity for detection of Human SLC31A1. No significant cross-reactivity or interference between Human SLC31A1 and analogues was observed.
Sequence Length	190
Assay Type	Sandwich ELISA (Quantitative)
Samples	Cell Culture Supernatants, Serum, Plasma, Other Biological Fluids
Detection Method	Colorimetric
Usage Notes	* Do not mix components from different kit lots or use reagents beyond the kit expiration date. * Allow all reagents to warm to room temperature for at least 30 minutes before opening. * Pre-rinse the pipet tip with reagent, use fresh pipet tips for each sample, standard and reagent to avoid contamination. * Unused wells must be kept desiccated at 4 degree C in the sealed bag provided. * Mix Thoroughly is very important for the result. It is recommended using low frequency oscillator or slight hand shaking every 10 minutes. * It is recommended that all samples and standards be assayed in duplicate or triplicate.
Preparation and Storage	Store at 2-8 degree C.

IMAGES



Standard Curve (Sample)

Fig.1. Human High affinity copper uptake protein 1 (SLC31A1) Standard Curve.

ADDITIONAL INFORMATION

Related Product Information for SLC31A1 elisa kit	Description: This Human High affinity copper uptake protein 1 (SLC31A1) ELISA Kit employs a two-site sandwich ELISA to quantitate SLC31A1 in samples. An antibody specific for SLC31A1 has been pre-coated onto a microplate. Standards and samples are pipetted into the wells and any SLC31A1 present is bound by the immobilized antibody. After removing any unbound substances, a biotin-conjugated antibody specific for SLC31A1 is added to the wells. After washing, Streptavidin conjugated Horseradish Peroxidase (HRP) is added to the wells. Following a wash to remove any unbound avidin-enzyme reagent, a substrate solution is added to the wells and color develops in proportion to the amount of SLC31A1 bound in the initial step. The color development is stopped and the intensity of the color is measured. Background: Copper is an element essential for life, but excessive copper can be toxic or even lethal to the cell. Therefore, cells have developed sophisticated ways to maintain a critical copper balance, with the intake, export, and intracellular compartmentalization or buffering of copper strictly regulated. The deduced 190-amino acid human CTR1 protein is similar to yeast CTR1 and Arabidopsis COPT1, a copper transporter also isolated by functional complementation of yeast ctr1. All 3 predicted proteins have 3 transmembrane domains and an N terminus that is rich in methionine and serine residues; the N terminus of human CTR1 is also abundant in histidines. Northern blot analysis detected 2 major CTR1 transcripts of approximately 2 kb and 5.5 kb and a less abundant transcript of about 8.5 kb in all human organs and tissues examined.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	4507015
NCBI GeneID	1317
NCBI Accession #	NP_001850.1
NCBI GenBank Nucleotide #	NP_001850.1
UniProt Accession #	O15431
NCBI Official Full Name	high affinity copper uptake protein 1
NCBI Official Synonym Full Names	solute carrier family 31 member 1
NCBI Official Symbol	SLC31A1
NCBI Official Synonym Symbols	CTR1; COPT1
NCBI Protein Information	high affinity copper uptake protein 1
UniProt Protein Name	High affinity copper uptake protein 1
UniProt Gene Name	SLC31A1
UniProt Synonym Gene Names	COPT1; CTR1; hCTR1
UniProt Entry Name	COPT1_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.