

For Research Use Only

SLC31A1 Polyclonal antibody

Catalog Number: 27499-1-AP

Featured Product

4 Publications



Basic Information

Catalog Number:

27499-1-AP

Size:

150ul, Concentration: 800 ug/ml by Nanodrop;

Source:

Rabbit

Isotype:

IgG

Immunogen Catalog Number:

AG26601

GenBank Accession Number:

BC013611

GeneID (NCBI):

1317

UNIPROT ID:

O15431

Full Name:

solute carrier family 31 (copper transporters), member 1

Calculated MW:

21 kDa

Observed MW:

21-25,30-35,60-70 kDa

Purification Method:

Antigen affinity purification

Recommended Dilutions:

WB 1:500-1:1000

IF-P 1:50-1:500

Applications

Tested Applications:

WB, IF-P, FC, ELISA

Cited Applications:

WB, IHC, IF

Species Specificity:

human, mouse

Cited Species:

human, mouse

Positive Controls:

WB: HT-29 cells, Caco-2 cells, HeLa cells

IF-P: human liver cancer tissue,

Background Information

SLC31A1, also known as CTR1, COPT1 and solute carrier family 31 member 1, is a high-affinity copper transporter found in the cell membrane of human cells. It plays a crucial role in maintaining copper homeostasis within the body and functions as a homotrimer to influence dietary copper absorption in the cell membrane (PMID: 37853210; 28507097). SLC31A1 has three putative transmembrane domains, with an N-terminus located extracellularly and a C-terminus located intracellularly (PMID: 12827356). SLC31A1 can be detected as a 28 kDa band corresponding to glycosylated hCTR1 monomer, and a 24 kDa band that is unglycosylated hCTR1. In some membrane preparations a C-terminal degradation product of 17 kDa is also seen (PMID: 16135512). Additionally, SLC31A1 may also resolve as a 30 to 35 kDa and a 60 to 70 kDa protein on immunoblots, forming oligomers corresponding to the expected size of a homotrimeric complex (PMID: 12827356).

Notable Publications

Author	Pubmed ID	Journal	Application
Hong Yang	36293101	Int J Mol Sci	WB
Xue-Yan Shen	39287710	J Assist Reprod Genet	WB, IHC
Qiang Hu	39153705	Gene	WB, IF

Storage

Storage:

Store at -20°C. Stable for one year after shipment.

Storage Buffer:

PBS with 0.02% sodium azide and 50% glycerol pH 7.3.

Aliquoting is unnecessary for -20°C storage

*** 20ul sizes contain 0.1% BSA

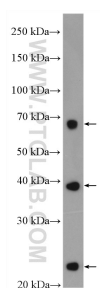
For technical support and original validation data for this product please contact:

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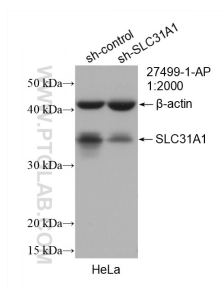
E: proteintech@ptglab.com
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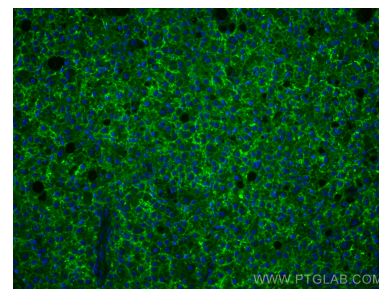
Selected Validation Data



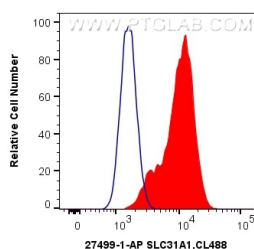
HT-29 cells were subjected to SDS PAGE followed by western blot with 27499-1-AP (SLC31A1 antibody) at dilution of 1:500 incubated at room temperature for 1.5 hours.



WB result of SLC31A1 antibody (27499-1-AP; 1:2000; incubated at room temperature for 1.5 hours) with sh-Control and sh-SLC31A1 transfected HeLa cells.



Immunofluorescent analysis of (4% PFA) fixed human liver cancer tissue using SLC31A1 antibody (27499-1-AP) at dilution of 1:200 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).



1X10⁶ HeLa cells were surface stained with 0.4 ug Anti-Human SLC31A1 (27499-1-AP) and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) at dilution 1:1000 (red), or 0.4 ug Control Antibody. Cells were not fixed.