

SLC7A10 (G-12): sc-240888

BACKGROUND

SLC7A10 (solute carrier family 7, (neutral amino acid transporter, y+ system) member 10), also known as ASC1 (asc-type amino acid transporter 1), is a 523 amino acid multi-pass membrane protein that belongs to the amino acid-polyamine-organocation (APC) superfamily. SLC7A10 forms a disulfide-linked heterodimer with CD98 to regulate high-affinity transport of several neutral amino acids, including D-serine. Expressed in pancreas, skeletal muscle, placenta, heart, brain, kidney, lung and liver, SLC7A10 is encoded by a gene that maps to human chromosome 19q13.11 and is considered a candidate gene for cystinuria. Chromosome 19 consists of over 63 million bases, houses approximately 1,400 genes and is recognized for having the greatest gene density of the human chromosomes.

REFERENCES

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3. Leclerc, D., et al. 2001. Is the SLC7A10 gene on chromosome 19 a candidate locus for cystinuria? *Mol. Genet. Metab.* 73: 333-339.
4. Dehal, P., et al. 2001. Human chromosome 19 and related regions in mouse: conservative and lineage-specific evolution. *Science* 293: 104-111.
5. Pineda, M., et al. 2004. The amino acid transporter asc-1 is not involved in cystinuria. *Kidney Int.* 66: 1453-1464.
6. Xu, D. and Hemler, M.E. 2005. Metabolic activation-related CD147-CD98 complex. *Mol. Cell. Proteomics* 4: 1061-1071.
7. Online Mendelian Inheritance in Man, OMIM[™]. 2007. Johns Hopkins University, Baltimore, MD. MIM Number: 607959. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
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CHROMOSOMAL LOCATION

Genetic locus: SLC7A10 (human) mapping to 19q13.11; Slc7a10 (mouse) mapping to 7 B1.

SOURCE

SLC7A10 (G-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of SLC7A10 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-240888 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

SLC7A10 (G-12) is recommended for detection of SLC7A10 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with other SLC7A family members.

SLC7A10 (G-12) is also recommended for detection of SLC7A10 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for SLC7A10 siRNA (h): sc-97607, SLC7A10 siRNA (m): sc-153578, SLC7A10 shRNA Plasmid (h): sc-97607-SH, SLC7A10 shRNA Plasmid (m): sc-153578-SH, SLC7A10 shRNA (h) Lentiviral Particles: sc-97607-V and SLC7A10 shRNA (m) Lentiviral Particles: sc-153578-V.

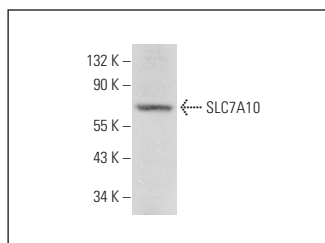
Molecular Weight of SLC7A10: 57 kDa.

Positive Controls: human liver extract: sc-363766.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker[™] compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker[™] Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz[™] Mounting Medium: sc-24941.

DATA



SLC7A10 (G-12): sc-240888. Western blot analysis of SLC7A10 expression in human liver tissue extract.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.