

# SLC7A6 (H-13): sc-136885

## BACKGROUND

SLC7A6 (solute carrier family 7 member 6), also known as LAT3, LAT-2 or  $\gamma^+$ LAT-2 ( $\gamma^+$ L amino acid transporter 2), is a 515 amino acid multi-pass membrane protein belonging to the amino acid-polyamine-organocation (APC) superfamily and the L-type amino acid transporter (LAT) family. Expressed in normal fibroblasts, HUVECs (human umbilical vein endothelial cells), monocytes, RPE (retinal pigment epithelial) cells and various carcinoma cell lines, SLC7A6 is involved in the sodium-independent uptake of dibasic amino acids and sodium-dependent uptake of some neutral amino acids. SLC7A6 also acts as an arginine/glutamine exchanger, following an antiport mechanism for amino acid transport, influencing arginine release in exchange for extracellular amino acids. SLC7A6 may exist as a disulfide-linked heterodimer with the amino acid transport protein CD98. SLC7A6 plays a role in nitric oxide synthesis in HUVECs via transport of L-arginine, and is involved in the transport of L-arginine in monocytes and reduces uptake of ornithine in RPE cells.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: *Slc7a6* (mouse) mapping to 8 D3.

## SOURCE

SLC7A6 (H-13) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an extracellular domain of SLC7A6 of mouse origin.

## PRODUCT

Each vial contains 100  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-136885 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

SLC7A6 (H-13) is recommended for detection of SLC7A6 isoforms 1 and 2 of mouse and rat origin by Western Blotting (starting dilution 1:100, dilution range 1:50-1:500), immunofluorescence (starting dilution 1:25, dilution range 1:25-1:250) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with other SLC7A proteins.

SLC7A6 (H-13) is also recommended for detection of SLC7A6 isoforms 1 and 2 in additional species, including bovine.

Suitable for use as control antibody for SLC7A6 siRNA (m): sc-153581, SLC7A6 shRNA Plasmid (m): sc-153581-SH, SLC7A6 shRNA (m) Lentiviral Particles: sc-153581-V.

Molecular Weight of SLC7A6: 58 kDa.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## 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.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.