

SLC7A14 (K-13): sc-103228

BACKGROUND

SLC7A14, also known as solute carrier family 7 member 14 or probable cationic amino acid transporter, is a 771 amino acid multi-pass membrane protein that belongs to the amino acid-polyamine-organocation (APC) superfamily and the cationic amino acid transporter (CAT) family. The gene that encodes SLC7A14 maps to human chromosome 3q26.2. Chromosome 3 is made up of about 214 million bases encoding over 1,100 genes. Notably, there is a chemokine receptor gene cluster and a variety of human cancer related loci on chromosome 3. Particular regions of the chromosome 3 short arm are deleted in many types of cancer cells.

REFERENCES

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- Darai, E., et al. 2005. Evolutionarily plastic regions at human 3p21.3 coincide with tumor breakpoints identified by the "elimination test". *Genomics* 86: 1-12.
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- Nareyck, G., et al. 2006. Establishment and characterization of two uveal melanoma cell lines derived from tumors with loss of one chromosome 3. *Exp. Eye Res.* 83: 858-864.

CHROMOSOMAL LOCATION

Genetic locus: SLC7A14 (human) mapping to 3q26.2; Slc7a14 (mouse) mapping to 3 A3.

SOURCE

SLC7A14 (K-13) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of SLC7A14 of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-103228 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

SLC7A14 (K-13) is recommended for detection of SLC7A14 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.

SLC7A14 (K-13) is also recommended for detection of SLC7A14 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for SLC7A14 siRNA (h): sc-77973, SLC7A14 siRNA (m): sc-153580, SLC7A14 shRNA Plasmid (h): sc-77973-SH, SLC7A14 shRNA Plasmid (m): sc-153580-SH, SLC7A14 shRNA (h) Lentiviral Particles: sc-77973-V and SLC7A14 shRNA (m) Lentiviral Particles: sc-153580-V.

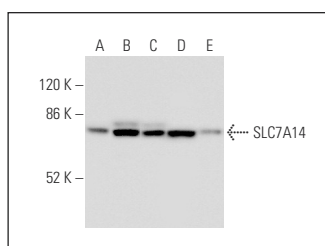
Molecular Weight of SLC7A14: 84 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, Jurkat whole cell lysate: sc-2204 or K-562 whole cell lysate: sc-2203.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



SLC7A14 (K-13): sc-103228. Western blot analysis of SLC7A14 expression in HeLa (A), K-562 (B), Jurkat (C), CCD-1064Sk (D) and BJ (E) whole cell lysates.

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.