

SLC25A3 (h): 293T Lysate: sc-110513

BACKGROUND

Inner membrane mitochondrial proteins are responsible for the transport of metabolites across the mitochondrial membrane. SLC25A3 (solute carrier family 25 (mitochondrial carrier; phosphate carrier), member 3), also known as PHC or PTP (phosphate transport protein), is a 362 amino acid multi-pass inner mitochondrial membrane protein that belongs to the mitochondrial carrier family. SLC25A3 transports phosphate groups (and cotransports H⁺) to the mitochondrial matrix from cytosol, and exists as two alternatively spliced isoforms designated SLC25A3 isoform A and B. Highly expressed in pancreas, skeletal muscle and heart, SLC25A3 contains three solcar repeats and is encoded by a gene that maps to human chromosome 12q23.1. Defects in the gene encoding SLC25A3 are linked to mitochondrial phosphate carrier deficiency (MPCD), a disorder of oxidative phosphorylation that leads to death within the first year of life.

REFERENCES

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2. Dolce, V., et al. 1994. The sequences of human and bovine genes of the phosphate carrier from mitochondria contain evidence of alternatively spliced forms. *J. Biol. Chem.* 269: 10451-10460.
3. Marsh, S., et al. 1995. Chromosomal localization of the mitochondrial phosphate carrier gene PHC to 12q23. *Genomics* 29: 814-815.
4. Huizing, M., et al. 1998. Human mitochondrial transmembrane metabolite carriers: tissue distribution and its implication for mitochondrial disorders. *J. Bioenerg. Biomembr.* 30: 277-284.
5. Mayr, J.A., et al. 2007. Mitochondrial phosphate-carrier deficiency: a novel disorder of oxidative phosphorylation. *Am. J. Hum. Genet.* 80: 478-484.
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CHROMOSOMAL LOCATION

Genetic locus: SLC25A3 (human) mapping to 12q23.1.

PRODUCT

SLC25A3 (h): 293T Lysate represents a lysate of human SLC25A3 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.

APPLICATIONS

SLC25A3 (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive SLC25A3 antibodies. Recommended use: 10-20 µl per lane.

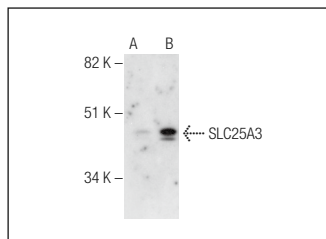
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

SLC25A3 (F-1): sc-376742 is recommended as a positive control antibody for Western Blot analysis of enhanced human SLC25A3 expression in SLC25A3 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



SLC25A3 (F-1): sc-376742. Western blot analysis of SLC25A3 expression in non-transfected: sc-117752 (A) and human SLC25A3 transfected: sc-110513 (B) 293T whole cell lysates.

RESEARCH USE

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