

SLC25A42 (K-18): sc-244162

BACKGROUND

SLC25A42 (solute carrier family 25, member 42) is a 318 amino acid multi-pass membrane protein that belongs to the mitochondrial carrier family. SLC25A42 contains three Solcar repeats. Expression of *slc25a42* was found in all rat tissues examined, with highest expression in adipose, followed by hypothalamus and brain coronal sections containing corpus callosum, fornix, thalamus, hypothalamus, optic chiasm, pons, midbrain and cerebellum. The main physiological role of SLC25A42 is to import CoA into mitochondria in exchange for intramitochondrial (deoxy)adenine nucleotides and adenosine 3',5'-diphosphate. SLC25A42 exhibits a high transport affinity for CoA, dephospho-CoA, ADP and adenosine 3',5'-diphosphate. The SLC25A42 gene contains seven exons, is conserved in chimpanzee, dog, cow, mouse, rat, chicken, zebrafish, fruit fly, mosquito, *C.elegans*, *S.pombe*, *S.cerevisiae*, *K.lactis*, *E.gossypii*, *M.grisea*, *N.crassa*, *A.thaliana* and rice, and maps to human chromosome 19p13.11. The mouse gene maps to chromosome 8.

REFERENCES

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- Robinson, A.J., et al. 2008. The mechanism of transport by mitochondrial carriers based on analysis of symmetry. *Proc. Natl. Acad. Sci. USA* 105: 17766-17771.
- Fiermonte, G., et al. 2009. A novel member of solute carrier family 25 (SLC25A42) is a transporter of coenzyme A and adenosine 3',5'-diphosphate in human mitochondria. *J. Biol. Chem.* 284: 18152-18159.
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CHROMOSOMAL LOCATION

Genetic locus: SLC25A42 (human) mapping to 19p13.11; *Slc25a42* (mouse) mapping to 8 B3.3.

SOURCE

SLC25A42 (K-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of SLC25A42 of human origin.

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.

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-244162 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

SLC25A42 (K-18) is recommended for detection of SLC25A42 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).

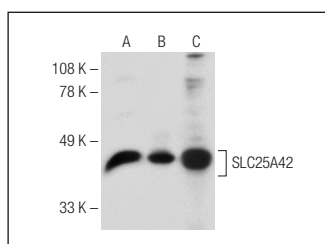
SLC25A42 (K-18) is also recommended for detection of SLC25A42 in additional species, including equine, canine and bovine.

Suitable for use as control antibody for SLC25A42 siRNA (h): sc-97761, SLC25A42 siRNA (m): sc-153518, SLC25A42 shRNA Plasmid (h): sc-97761-SH, SLC25A42 shRNA Plasmid (m): sc-153518-SH, SLC25A42 shRNA (h) Lentiviral Particles: sc-97761-V and SLC25A42 shRNA (m) Lentiviral Particles: sc-153518-V.

Molecular Weight of SLC25A42: 35 kDa.

Positive Controls: mouse brain extract: sc-2253.

DATA



SLC25A42 (K-18): sc-244162. Western blot analysis of SLC25A42 expression in C6 whole cell lysate (A) and mouse brain (B) and rat skeletal muscle (C) tissue extracts.

PROTOCOLS

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