SANTA CRUZ BIOTECHNOLOGY, INC.

SLC25A29 (H-23): sc-102110

BACKGROUND

SLC25A29 (solute carrier family 25 member 29), also known as CACL (mitochondrial carnitine/acylcarnitine translocase- (SLC25A20-) like) or C14orf69, is a 303 amino acid multi-pass membrane protein that belongs to the the SLC25 family of mitochondrial carriers that are responsible for transporting metabolites across the inner mitochondrial membrane. Expressed predominantly in tissues that use fatty acids as fuels (ie. liver and heart), SLC25A29 contains three Solcar repeats, localizes to the mitochondrion inner membrane and is believed to participate in palmitoylcarnitine transport. This suggests that SLC25A29 plays an important role in fatty acid catabolism. In addition, the expression of SLC25A29 is induced by various stresses including fasting and partial hepatectomy, implicating SLC25A29 in the body's adaptive response of a change in the energy source from glucose to free fatty acids.

REFERENCES

1. Kerner, J. and Hoppel, C. 2000. Fatty acid import into mitochondria. Biochim. Biophys. Acta. 1486: 1-17.
2. IJlst, L., et al. 2001. Functional analysis of mutant human carnitine acylcarnitine translocases in yeast. Biochem. Biophys. Res. Commun. 280: 700-706.
3. Peluso, G., et al. 2002. Decreased mitochondrial carnitine translocase in skeletal muscles impairs utilization of fatty acids in insulin-resistant patients. Front. Biosci. 7: a109-a116.
4. Sekoguchi, E., et al. 2003. A novel mitochondrial carnitine-acylcarnitine translocase induced by partial hepatectomy and fasting. J. Biol. Chem. 278: 38796-38802.
5. Iacobazzi, V., et al. 2004. Molecular and functional analysis of SLC25A20 mutations causing carnitine-acylcarnitine translocase deficiency. Hum. Mutat. 24: 312-320.
6. Rubio-Gozalbo, M.E., et al. 2004. Carnitine-acylcarnitine translocase deficiency, clinical, biochemical and genetic aspects. Mol. Aspects Med. 25: 521-532.
7. Peluso, G., et al. 2005. Differential carnitine/acylcarnitine translocase expression defines distinct metabolic signatures in skeletal muscle cells. J. Cell. Physiol. 203: 439-446.

CHROMOSOMAL LOCATION

Genetic locus: SLC25A29 (human) mapping to 14q32.2; Slc25a29 (mouse) mapping to 12 F1.

STORAGE

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

PROTOCOLS

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

SOURCE

SLC25A29 (H-23) is a purified rabbit polyclonal antibody raised against SLC25A29 of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

APPLICATIONS

SLC25A29 (H-23) is recommended for detection of SLC25A29 of mouse, rat, human and dog 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)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for SLC25A29 siRNA (h): sc-92341, SLC25A29 siRNA (m): sc-153509, SLC25A29 shRNA Plasmid (h): sc-92341-SH, SLC25A29 shRNA Plasmid (m): sc-153509-SH, SLC25A29 shRNA (h) Lentiviral Particles: sc-92341-V and SLC25A29 shRNA (m) Lentiviral Particles: sc-153509-V.

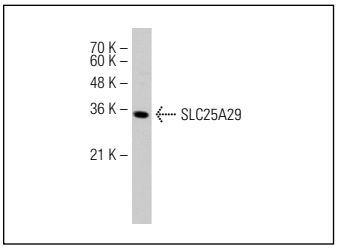
Molecular Weight of SLC25A29: 32 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, C6 whole cell lysate or c4 whole cell lysates.

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).

DATA



SLC25A29 (H-23): sc-102110. Western blot analysis of SLC25A29 expression in Jurkat whole cell lysate.

RESEARCH USE

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