# SANTA CRUZ BIOTECHNOLOGY, INC.

# SLC25A11 (AP9): sc-130418



#### BACKGROUND

Inner membrane mitochondrial proteins are responsible for the transport of metabolites across the mitochondrial membrane. SLC25A11 (solute carrier family 25 member 11), also known as mitochondrial 2-oxoglutarate/malate carrier protein, is a 314 amino acid multi-pass transmembrane protein belonging to the mitochondrial carrier protein family. As an oxoglutarate/malate carrier, SLC25A11 transports 2-oxoglutarate across the inner mitochondrial membrane in an electroneutral exchange for dicarboxylic acids and malate. SLC25A11 also participates in other important metabolic processes, such as the oxoglutarate/isocitrate shuttle and the malate-aspartate shuttle, as well as in nitrogen metabolism and in gluconeogenesis from lactate. SLC25A11 contains three solcar repeats, which is typical of substrate carrier proteins involved in energy transfer.

## REFERENCES

- Aquila, H., Link, T.A. and Klingenberg, M. 1987. Solute carriers involved in energy transfer of mitochondria form a homologous protein family. FEBS Lett. 212: 1-9.
- Iacobazzi, V., Palmieri, F., Runswick, M.J. and Walker, J.E. 1992. Sequences of the human and bovine genes for the mitochondrial 2-oxoglutarate carrier. DNA Seq. 3: 79-88.
- Kuan, J. and Saier, M.H. 1993. The mitochondrial carrier family of transport proteins: structural, functional, and evolutionary relationships. Crit. Rev. Biochem. Mol. Biol. 28: 209-233.
- Piccininni, S., Iacobazzi, V., Lauria, G., Rocchi, M. and Palmieri, F. 1998. Assignment of the oxoglutarate carrier gene (SLC20A4) to human chromosome 17p13.3. Cytogenet. Cell Genet. 83: 256-257.
- Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 604165. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
- Palmieri, F. 2004. The mitochondrial transporter family (SLC25): physiological and pathological implications. Pflugers Arch. 447: 689-709.
- Haitina, T., Lindblom, J., Renström, T. and Fredriksson, R. 2006. Fourteen novel human members of mitochondrial solute carrier family 25 (SLC25) widely expressed in the central nervous system. Genomics 88: 779-790.

#### CHROMOSOMAL LOCATION

Genetic locus: SLC25A11 (human) mapping to 17p13.2.

#### SOURCE

SLC25A11 (AP9) is a mouse monoclonal antibody raised against recombinant SLC25A11 of human origin.

#### PRODUCT

Each vial contains 100  $\mu g$   $lgG_1$  kappa light chain in 1.0 ml of PBS with <0.1% sodium azide and 0.1% gelatin.

## **RESEARCH USE**

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

## APPLICATIONS

SLC25A11 (AP9) is recommended for detection of SLC25A11 of human origin by immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for SLC25A11 siRNA (h): sc-94049, SLC25A11 shRNA Plasmid (h): sc-94049-SH and SLC25A11 shRNA (h) Lentiviral Particles: sc-94049-V.

Molecular Weight (predicted) of SLC25A11: 34 kDa.

Molecular Weight (observed) of SLC25A11: 20 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, Jurkat whole cell lysate: sc-2204 or Ramos cell lysate: sc-2216.

## **RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended: 1) Immunofluorescence: use m-IgG $\kappa$  BP-FITC: sc-516140 or m-IgG $\kappa$  BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz<sup>®</sup> Mounting Medium: sc-24941 or UltraCruz<sup>®</sup> Hard-set Mounting Medium: sc-359850.

#### DATA



SLC25A11 (AP9): sc-130418. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human kidney tissue showing cytoplasmic localization.

#### **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 for detailed protocols and support products.