SANTA CRUZ BIOTECHNOLOGY, INC.

# SLC25A23 (D-9): sc-377109

SANTA CRUZ BIOTECHNOLOGY

*The Power to Question*

## BACKGROUND

SLC25A23 (solute carrier family 25 (mitochondrial carrier; phosphate carrier), member 23), also known as APC2, MCSC2, MGC2615 or SCaMC-3, is a 467 amino acid mitochondrial inner membrane protein expressed at highest levels in brain, skeletal muscle and pancreas with low expression in other tissues. Existing as four alternatively spliced isoforms, SLC25A23 contains three EF-hand domains and three Solcar repeats. Belonging to the mitochondrial carrier superfamily of proteins, SLC25A23 is calcium-dependent mitochondrial solute carrier that shuttles metabolites, nucleotides and cofactors through the mitochondrial inner membrane. SLC25A23 is thought to act as an ATP-Mg/$P_i$ exchanger that regulates the transport of Mg-ATP in exchange for phosphate, catalyzing the net uptake or efflux of adenine nucleotides into or from the mitochondria. SLC25A23 is encoded by a gene located on human chromosome 19p13.3.

## REFERENCES


1. del Arco, A., et al. 2004. Identification of a novel human subfamily of mitochondrial carriers with calcium-binding domains. J. Biol. Chem. 279: 24701-24713.
2. Online Mendelian Inheritance in Man, OMIM™. 2004. Johns Hopkins University, Baltimore, MD. MIM Number: 608746. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
3. Arco, A.D., et al. 2005. New mitochondrial carriers: an overview. Cell. Mol. Life Sci. 62: 2204-2227.


## CHROMOSOMAL LOCATION

Genetic locus: SLC25A23 (human) mapping to 19p13.3; Slc25a23 (mouse) mapping to 17 D.

## SOURCE

SLC25A23 (D-9) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 135-167 within an internal region of SLC25A23 of human origin.

## PRODUCT

Each vial contains 200 µg $IgG_{2b}$ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

SLC25A23 (D-9) is available conjugated to agarose (sc-377109 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-377109 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-377109 PE), fluorescein (sc-377109 FITC), Alexa Fluor® 488 (sc-377109 AF488), Alexa Fluor® 546 (sc-377109 AF546), Alexa Fluor® 594 (sc-377109 AF594) or Alexa Fluor® 647 (sc-377109 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-377109 AF680) or Alexa Fluor® 790 (sc-377109 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-377109 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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## APPLICATIONS

SLC25A23 (D-9) is recommended for detection of SLC25A23 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

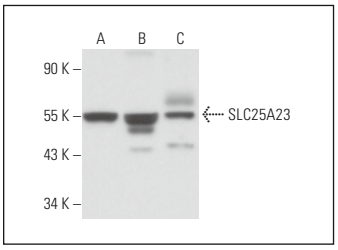
SLC25A23 (D-9) is also recommended for detection of SLC25A23 in additional species, including bovine and porcine.

Suitable for use as control antibody for SLC25A23 siRNA (h): sc-97088, SLC25A23 siRNA (m): sc-153507, SLC25A23 shRNA Plasmid (h): sc-97088-SH, SLC25A23 shRNA Plasmid (m): sc-153507-SH, SLC25A23 shRNA (h) Lentiviral Particles: sc-97088-V and SLC25A23 shRNA (m) Lentiviral Particles: sc-153507-V.

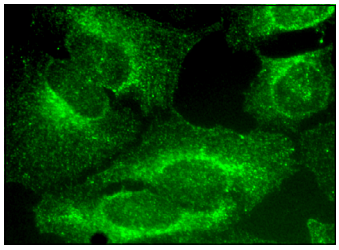
Molecular Weight of SLC25A23: 48-54 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, rat eye extract: sc-364805 or Neuro-2A whole cell lysate: sc-364185.

## DATA




SLC25A23 (D-9): sc-377109. Western blot analysis of SLC25A23 expression in HeLa (**A**) and Neuro-2A (**B**) whole cell lysates and rat eye tissue extract (**C**).



SLC25A23 (D-9): sc-377109. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization.

## SELECT PRODUCT CITATIONS


1. Tan, J.L., et al. 2019. New high-throughput screening identifies compounds that reduce viability specifically in liver cancer cells that express high levels of SALL4 by inhibiting oxidative phosphorylation. Gastroenterology 157: 1615-1629.e17.


## 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.

## PROTOCOLS

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