

# SLC25A25 (D-14): sc-132451

## BACKGROUND

SLC25A25 (solute carrier family 25 member 25), also known as MCSC (mitochondrial calcium-dependent solute carrier protein), PCSCL or SCaMC-2 (small calcium-binding mitochondrial carrier protein 2), is a 469 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 in a wide variety of tissues and localized to the mitochondrion inner membrane, SLC25A25 contains three solcar repeats and three EF-hand domains and functions as a calcium-dependent mitochondrial solute carrier. More specifically, SLC25A25 acts as an ATP-Mg/P<sub>i</sub> co-transporter, facilitating the transport of Mg-ATP in exchange for phosphate. Due to alternative splicing events, six isoforms exist for SLC25A25, namely SCaMC-2a, SCaMC-2b, isoform 3, SCaMC-2c, isoform 5 and SCaMC-2d. SCaMC-2a is ubiquitously expressed while SCaMC-2b expression is limited to lung and kidney.

## CHROMOSOMAL LOCATION

Genetic locus: SLC25A25 (human) mapping to 9q34.11; Slc25a25 (mouse) mapping to 2 B.

## SOURCE

SLC25A25 (D-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of SLC25A25 of human origin.

## 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-132451 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

SLC25A25 (D-14) is recommended for detection of SLC25A25 isoforms 1, 2, 3, 4, 5 and 6 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); non cross-reactive with other SLC25A family members.

SLC25A25 (D-14) is also recommended for detection of SLC25A25 isoforms 1, 2, 3, 4, 5 and 6 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for SLC25A25 siRNA (h): sc-92973, SLC25A25 siRNA (m): sc-153508, SLC25A25 shRNA Plasmid (h): sc-92973-SH, SLC25A25 shRNA Plasmid (m): sc-153508-SH, SLC25A25 shRNA (h) Lentiviral Particles: sc-92973-V and SLC25A25 shRNA (m) Lentiviral Particles: sc-153508-V.

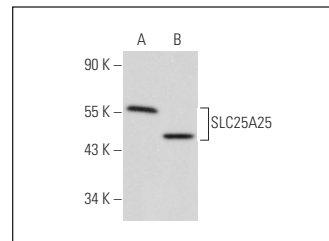
Molecular Weight of SLC25A25: 53 kDa.

Positive Controls: rat skeletal muscle extract: sc-364810 or human kidney extract: sc-363764.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



SLC25A25 (D-14): sc-132451. Western blot analysis of SLC25A25 expression in rat skeletal muscle (A) and human kidney (B) tissue extracts.

## 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](http://www.scbt.com) or our catalog for detailed protocols and support products.

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Try **SLC25A25 (4D8): sc-517143**, our highly recommended monoclonal alternative to SLC25A25 (D-14).