

# SLC25A45 (Q-13): sc-132827

## BACKGROUND

SLC25A45 (solute carrier family 25 member 45) is a 288 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 variety of tissues, SLC25A45 contains three Solcar repeats and localizes to the mitochondrion inner membrane. Due to alternative splicing events, four known isoforms exist for SLC25A45. The human gene encoding SLC25A45 localizes to chromosome 11. With approximately 135 million base pairs and 1,400 genes, chromosome 11 makes up around 4% of human genomic DNA and is considered a gene and disease association dense chromosome. Wilms' tumors, WAGR syndrome and Denys-Drash syndrome are associated with mutations of the WT1 gene located on chromosome 11. Other disorders associated with defects in chromosome 11 include Jervell and Lange-Nielsen syndrome, Jacobsen syndrome, Niemann-Pick disease, hereditary angioedema and Smith-Lemli-Opitz syndrome.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: Slc25a45 (mouse) mapping to 19 A.

## SOURCE

SLC25A45 (Q-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of SLC25A45 of mouse origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-132827 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

SLC25A45 (Q-13) is recommended for detection of SLC25A45 isoforms 1 and 2 of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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.

Suitable for use as control antibody for SLC25A45 siRNA (m): sc-153521, SLC25A45 shRNA Plasmid (m): sc-153521-SH and SLC25A45 shRNA (m) Lentiviral Particles: sc-153521-V.

Molecular Weight of SLC25A45 isoforms: 32/27/21/30 kDa.

Positive Controls: mouse prostate tissue extract

## 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 Blotting A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) 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.

## 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.