

SLC25A33 (P-12): sc-162209

BACKGROUND

SLC25A33 (solute carrier family 25, member 33), also known as BMSC-MCP (bone marrow stromal cells-mitochondrial carrier protein), is a 321 amino acid multi-pass membrane protein that localizes to mitochondria. Belonging to the mitochondrial carrier superfamily of proteins, SLC25A33 is expressed in the central nervous system as well as in testis and skeletal muscle. SLC25A33 may act as a mitochondrial transporter that participates in dendritic cell endocytosis and may also be involved in mitochondrial oxidative phosphorylation. SLC25A33 is encoded by a gene located on human chromosome 1, which spans 260 million base pairs, contains over 3,000 genes and comprises nearly 8% of the human genome. Chromosome 1 houses a large number of disease-associated genes, including those that are involved in familial adenomatous polyposis, Stickler syndrome, Parkinson's disease, Gaucher disease, schizophrenia and Usher syndrome. Aberrations in chromosome 1 are found in a variety of cancers, including head and neck cancer, malignant melanoma and multiple myeloma.

REFERENCES

1. Wang, B., et al. 2004. HuBMSC-MCP, a novel member of mitochondrial carrier superfamily, enhances dendritic cell endocytosis. *Biochem. Biophys. Res. Commun.* 314: 292-300.
2. Palmieri, F. 2004. The mitochondrial transporter family (SLC25): physiological and pathological implications. *Pflugers Arch.* 447: 689-709.
3. Weise, A., et al. 2005. New insights into the evolution of chromosome 1. *Cytogenet. Genome Res.* 108: 217-222.
4. Haitina, T., et al. 2006. Fourteen novel human members of mitochondrial solute carrier family 25 (SLC25) widely expressed in the central nervous system. *Genomics* 88: 779-790.
5. Gregory, S.G., et al. 2006. The DNA sequence and biological annotation of human chromosome 1. *Nature* 441: 315-321.
6. Marzin, Y., et al. 2006. Chromosome 1 abnormalities in multiple myeloma. *Anticancer Res.* 26: 953-959.

CHROMOSOMAL LOCATION

Genetic locus: SLC25A33 (human) mapping to 1p36.22; Slc25a33 (mouse) mapping to 4 E2.

SOURCE

SLC25A33 (P-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of SLC25A33 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-162209 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

SLC25A33 (P-12) is recommended for detection of SLC25A33 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.

SLC25A33 (P-12) is also recommended for detection of SLC25A33 in additional species, including equine, canine and porcine.

Suitable for use as control antibody for SLC25A33 siRNA (h): sc-78559, SLC25A33 siRNA (m): sc-153511, SLC25A33 shRNA Plasmid (h): sc-78559-SH, SLC25A33 shRNA Plasmid (m): sc-153511-SH, SLC25A33 shRNA (h) Lentiviral Particles: sc-78559-V and SLC25A33 shRNA (m) Lentiviral Particles: sc-153511-V.

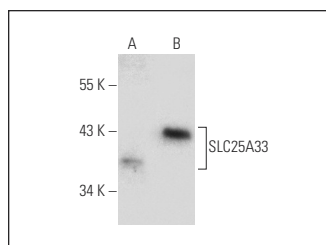
Molecular Weight of SLC25A33: 35 kDa.

Positive Controls: SLC25A33 (m): 293T Lysate: sc-126005.

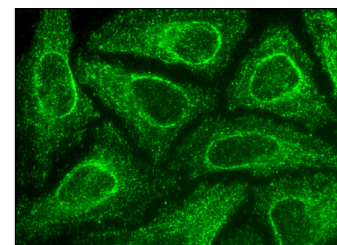
RECOMMENDED SECONDARY REAGENTS

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



SLC25A33 (P-12): sc-162209. Western blot analysis of SLC25A33 expression in non-transfected: sc-117752 (A) and mouse SLC25A33 transfected: sc-126005 (B) 293T whole cell lysates.



SLC25A33 (P-12): sc-162209. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic and membrane 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 or our catalog for detailed protocols and support products.