

SLC25A44 (C-12): sc-137765

BACKGROUND

SLC25A44 (solute carrier family 25, member 44) is a 314 amino acid multi-pass membrane protein that belongs to the SLC25 family of mitochondrial carrier proteins. SLC25A44 contains three Solcar repeats. SLC25A44 shares 31% identity and 46% similarity to yeast Ggc1, which is essential for mitochondrial genome maintenance and also involved in mitochondrial iron homeostasis. Slc25a44 expression is found in all rat tissues examined, with highest levels in hindbrain, cerebellum, and brain coronal sections containing corpus callosum, fornix, optic chiasm, thalamus, hypothalamus, midbrain, pons and cerebellum. The SLC25A44 gene is conserved in canine, bovine, mouse, rat, zebrafish, fruit fly, mosquito, *C. elegans*, *A. thaliana* and rice, and maps to human chromosome 1q22. The mouse gene has been mapped to chromosome 3. Chromosome 1 is the largest human chromosome spanning about 260 million base pairs and making up 8% of the human genome.

REFERENCES

- Weise, A., et al. 2005. New insights into the evolution of chromosome 1. *Cytogenet. Genome Res.* 108: 217-222.
- Marzin, Y., et al. 2006. Chromosome 1 abnormalities in multiple myeloma. *Anticancer Res.* 26: 953-959.
- 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.
- Gregory, S.G., et al. 2006. The DNA sequence and biological annotation of human chromosome 1. *Nature* 441: 315-321.
- Satre, M., et al. 2007. Mitochondrial carrier family: repertoire and peculiarities of the cellular slime mould *Dictyostelium discoideum*. *Biochimie* 89: 1058-1069.
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CHROMOSOMAL LOCATION

Genetic locus: SLC25A44 (human) mapping to 1q22; Slc25a44 (mouse) mapping to 3 F1.

SOURCE

SLC25A44 (C-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of SLC25A44 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-137765 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

SLC25A44 (C-12) is recommended for detection of SLC25A44 of mouse, rat and human 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 SLC25 family members.

SLC25A44 (C-12) is also recommended for detection of SLC25A44 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for SLC25A44 siRNA (h): sc-88562, SLC25A44 siRNA (m): sc-153520, SLC25A44 shRNA Plasmid (h): sc-88562-SH, SLC25A44 shRNA Plasmid (m): sc-153520-SH, SLC25A44 shRNA (h) Lentiviral Particles: sc-88562-V and SLC25A44 shRNA (m) Lentiviral Particles: sc-153520-V.

Molecular Weight of SLC25A44: 35 kDa.

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) 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.

RESEARCH USE

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

PROTOCOLS

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