

SLC46A3 (N-15): sc-84600

BACKGROUND

The major facilitator superfamily consists of presumed carbohydrate transporters with 10-12 membrane-spanning domains. SLC46A3 (solute carrier family 46, member 3), also known as FKSG16, is a 461 amino acid multi-pass membrane protein belonging to the major facilitator superfamily. SLC46A3 exists as three alternatively spliced isoforms and is encoded by a gene located on human chromosome 13. Comprising nearly 4% of human DNA, chromosome 13 contains around 114 million base pairs and 400 genes. Key tumor suppressor genes on chromosome 13 include the breast cancer susceptibility gene, BRCA2, and the RB1 (retinoblastoma) gene. RB1 encodes a crucial tumor suppressor protein which, when defective, leads to malignant growth in the retina and has been implicated in a variety of other cancers. The gene SLITRK1, which is associated with Tourette syndrome, is also located on chromosome 13. As with most chromosomes, polysomy of part or all of chromosome 13 is deleterious to development and decreases the odds of survival. Trisomy 13, also known as Patau syndrome, is quite deadly and the few who survive past one year suffer from permanent neurologic defects, difficulty eating and vulnerability to serious respiratory infections.

REFERENCES

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- Deng, H., et al. 2006. Examination of the SLITRK1 gene in Caucasian patients with Tourette syndrome. *Acta Neurol. Scand.* 114: 400-402.
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- Bugge, M., et al. 2007. Non-disjunction of chromosome 13. *Hum. Mol. Genet.* 16: 2004-2010.
- Hall, H.E., et al. 2007. The origin of trisomy 13. *Am. J. Med. Genet. A* 143: 2242-2248.
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CHROMOSOMAL LOCATION

Genetic locus: SLC46A3 (human) mapping to 13q12.3; Slc46a3 (mouse) mapping to 5 G3.

SOURCE

SLC46A3 (N-15) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping near the N-terminus of SLC46A3 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-84600 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

SLC46A3 (N-15) is recommended for detection of SLC46A3 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).

SLC46A3 (N-15) is also recommended for detection of SLC46A3 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for SLC46A3 siRNA (h): sc-76511, SLC46A3 siRNA (m): sc-153566, SLC46A3 shRNA Plasmid (h): sc-76511-SH, SLC46A3 shRNA Plasmid (m): sc-153566-SH, SLC46A3 shRNA (h) Lentiviral Particles: sc-76511-V and SLC46A3 shRNA (m) Lentiviral Particles: sc-153566-V.

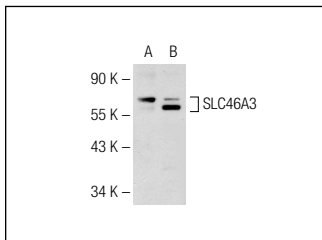
Molecular Weight of SLC46A3: 52 kDa.

Positive Controls: SLC46A3 (m): 293T Lysate: sc-123623.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



SLC46A3 (N-15): sc-84600. Western blot analysis of SLC46A3 expression in non-transfected: sc-117752 (A) and mouse SLC46A3 transfected: sc-123623 (B) 293T whole cell lysates.

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.