

SLC35F1 (K-16): sc-248617

BACKGROUND

SLC35F1 (solute carrier family 35, member F1) is a 408 amino acid multi-pass membrane protein that belongs to the SLC35F solute transporter family. Mainly expressed in brain, the SLC35F1 protein is also expressed in cardiac tissue, although its role in cardiac physiology is unknown. The SLC35F1 gene is conserved in chimpanzee, canine, mouse, rat, chicken, zebrafish, *C.elegans*, *M.grisea*, *A.thaliana* and rice, and maps to human chromosome 6q22.1. Making up nearly 6% of the human genome, chromosome 6 contains around 1,200 genes within 170 million base pairs of sequence. Deletion of a portion of the q arm of chromosome 6 is associated with early onset intestinal cancer suggesting the presence of a cancer susceptibility locus. Porphyria cutanea tarda is associated with chromosome 6 through the HFE gene which, when mutated, predisposes an individual to developing this porphyria. Notably, the PARK2 gene, which is associated with Parkinson's disease, and the genes encoding the major histocompatibility complex proteins, which are key molecular components of the immune system and determine predisposition to rheumatic diseases, are also located on chromosome 6. Stickler syndrome, 21-hydroxylase deficiency and maple syrup urine disease are also associated with genes on chromosome 6. A bipolar disorder susceptibility locus has been identified on the q arm of chromosome 6.

REFERENCES

- Mungall, A.J., et al. 2003. The DNA sequence and analysis of human chromosome 6. *Nature* 425: 805-811.
- McQueen, M.B., et al. 2005. Combined analysis from eleven linkage studies of bipolar disorder provides strong evidence of susceptibility loci on chromosomes 6q and 8q. *Am. J. Hum. Genet.* 77: 582-595.
- Park, E., et al. 2007. Modulation of parkin gene expression in noradrenergic neuronal cells. *Int. J. Dev. Neurosci.* 25: 491-497.
- Bläker, H., et al. 2008. Recurrent deletions at 6q in early age of onset non-HNPCC- and non-FAP-associated intestinal carcinomas. Evidence for a novel cancer susceptibility locus at 6q14-q22. *Genes Chromosomes Cancer* 47: 159-164.
- Nishimura, M., et al. 2009. Tissue-specific mRNA expression profiles of human solute carrier 35 transporters. *Drug Metab. Pharmacokinet.* 24: 91-99.
- Vasan, R.S., et al. 2009. Genetic variants associated with cardiac structure and function: a meta-analysis and replication of genome-wide association data. *JAMA* 302: 168-178.
- Oki, N.O., et al. 2011. Novel human genetic variants associated with extrapulmonary tuberculosis: a pilot genome wide association study. *BMC Res. Notes* 4: 28.

CHROMOSOMAL LOCATION

Genetic locus: SLC35F1 (human) mapping to 6q22.1; Slc35f1 (mouse) mapping to 10 B3.

SOURCE

SLC35F1 (K-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of SLC35F1 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-248617 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

SLC35F1 (K-16) is recommended for detection of SLC35F1 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 SLC35F family members.

SLC35F1 (K-16) is also recommended for detection of SLC35F1 in additional species, including equine, canine, bovine and avian.

Suitable for use as control antibody for SLC35F1 siRNA (h): sc-95572, SLC35F1 siRNA (m): sc-153542, SLC35F1 shRNA Plasmid (h): sc-95572-SH, SLC35F1 shRNA Plasmid (m): sc-153542-SH, SLC35F1 shRNA (h) Lentiviral Particles: sc-95572-V and SLC35F1 shRNA (m) Lentiviral Particles: sc-153542-V.

Molecular Weight of SLC35F1: 45 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.

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 or our catalog for detailed protocols and support products.