

# SLC35F3 (E-16): sc-248620

## BACKGROUND

SLC35F3 (solute carrier family 35, member F3) is a 421 amino acid multi-pass membrane protein that belongs to the SLC35F solute transporter family. The SLC35F3 protein is expressed in brain, specifically in the cerebellum. The SLC35F3 and TWIK-1 genes are adjacent in two pufferfish species, these genes are syntenic with Thrombospondin 2 (TSP-2) in chicken but not in mouse or human. Existing as two alternatively spliced isoforms, the SLC35F3 gene is conserved in chimpanzee, canine, bovine, mouse, chicken, zebrafish and *C. elegans*, and maps human chromosome 1q42.2. Chromosome 1 is the largest human chromosome spanning about 260 million base pairs and making up 8% of the human genome. There are about 3,000 genes on chromosome 1, and considering the great number of genes there are also a large number of diseases associated with chromosome 1. The MUTYH gene is located on chromosome 1 and is partially responsible for familial adenomatous polyposis. Stickler syndrome, Parkinsons, Gaucher disease and Usher syndrome are also associated with chromosome 1.

## REFERENCES

1. Watson, M.L., Kingsmore, S.F., Johnston, G.I., Siegelman, M.H., Le Beau, M.M., Lemons, R.S., Bora, N.S., Howard, T.A., Weissman, I.L. and McEver, R.P. 1990. Genomic organization of the selectin family of leukocyte adhesion molecules on human and mouse chromosome 1. *J. Exp. Med.* 172: 263-272.
2. Blackwood, D.H., Fordyce, A., Walker, M.T., St Clair, D.M., Porteous, D.J. and Muir, W.J. 2001. Schizophrenia and affective disorders—cosegregation with a translocation at chromosome 1q42 that directly disrupts brain-expressed genes: clinical and P300 findings in a family. *Am. J. Hum. Genet.* 69: 428-433.
3. Weise, A., Starke, H., Mrasek, K., Claussen, U. and Liehr, T. 2005. New insights into the evolution of chromosome 1. *Cytogenet. Genome Res.* 108: 217-222.
4. Marzin, Y., Jamet, D., Douet-Guilbert, N., Morel, F., Le Bris, M.J., Morice, P., Abgrall, J.F., Berthou, C. and De Braekeleer, M. 2006. Chromosome 1 abnormalities in multiple myeloma. *Anticancer Res.* 26: 953-959.
5. McKenzie, P., Chadalavada, S.C., Bohrer, J. and Adams, J.C. 2006. Phylogenomic analysis of vertebrate thrombospondins reveals fish-specific paralogues, ancestral gene relationships and a tetrapod innovation. *BMC Evol. Biol.* 6: 33.
6. Västermark,  $\alpha$ , Almen, M.S., Simmen, M.W., Fredriksson, R. and Schiöth, H.B. 2011. Functional specialization in nucleotide sugar transporters occurred through differentiation of the gene cluster EamA (DUF6) before the radiation of Viridiplantae. *BMC Evol. Biol.* 11: 123.

## CHROMOSOMAL LOCATION

Genetic locus: SLC35F3 (human) mapping to 1q42.2; Slc35f3 (mouse) mapping to 8 E2.

## SOURCE

SLC35F3 (E-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of SLC35F3 of human 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-248620 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

SLC35F3 (E-16) is recommended for detection of SLC35F3 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.

Suitable for use as control antibody for SLC35F3 siRNA (h): sc-88352, SLC35F3 siRNA (m): sc-153544, SLC35F3 shRNA Plasmid (h): sc-88352-SH, SLC35F3 shRNA Plasmid (m): sc-153544-SH, SLC35F3 shRNA (h) Lentiviral Particles: sc-88352-V and SLC35F3 shRNA (m) Lentiviral Particles: sc-153544-V.

Molecular Weight of SLC35F3 isoforms 1/2: 47/55 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](http://www.scbt.com) or our catalog for detailed protocols and support products.