

SLC35F3 (B-2): sc-515386

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., et al. 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., et al. 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., et al. 2005. New insights into the evolution of chromosome 1. *Cytogenet. Genome Res.* 108: 217-222.
4. Marzin, Y., et al. 2006. Chromosome 1 abnormalities in multiple myeloma. *Anticancer Res.* 26: 953-959.
5. McKenzie, P., et al. 2006. Phylogenomic analysis of vertebrate thrombospondins reveals fish-specific paralogues, ancestral gene relationships and a tetrapod innovation. *BMC Evol. Biol.* 6: 33.

CHROMOSOMAL LOCATION

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

SOURCE

SLC35F3 (B-2) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 4-19 at the N-terminus of SLC35F3 of human origin.

PRODUCT

Each vial contains 200 µg IgG₃ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-515386 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

RESEARCH USE

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

APPLICATIONS

SLC35F3 (B-2) is recommended for detection of SLC35F3 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

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.

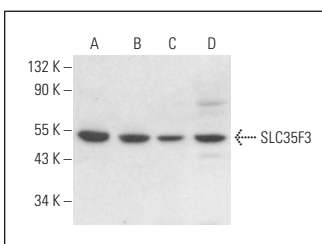
Molecular Weight of SLC35F3 isoforms 1/2: 47/55 kDa.

Positive Controls: Y79 cell lysate: sc-2240, C6 whole cell lysate: sc-364373 or NK-92 whole cell lysate: sc-364788.

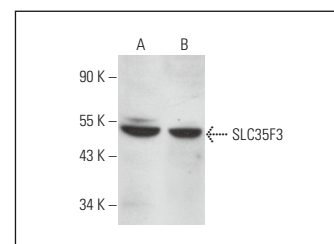
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



SLC35F3 (B-2): sc-515386. Western blot analysis of SLC35F3 expression in Y79 (A), MDA-MB-231 (B), Neuro-2A (C) and C6 (D) whole cell lysates.



SLC35F3 (B-2): sc-515386. Western blot analysis of SLC35F3 expression in NK-92 (A) and Y79 (B) 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.

PROTOCOLS

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