

IGSF4D (P-16): sc-99467

BACKGROUND

Ig (immunoglobulin) superfamily members exhibit functional characteristics including immune responses, growth factor signaling and cell adhesion. IGSF4D (Ig superfamily member 4D) is also known as CADM2 (cell adhesion molecule 2), Necl-3 (nectin-like protein 3) or synCAM2 and is a 435 amino acid protein that is a member of the nectin family. IGSF4D contains two C2-type domains and one V-type domain, which are characteristic of the nectin family and are thought to function in molecular recognition. IGSF4D is expressed in many tissues, including brain, where it is detected in the nervous system, specifically in myelinated axons and ependymal cells. IGSF4D is localized to the plasma membrane as a single-pass membrane protein and is expressed as three isoforms. IGSF4D functions in the regulation of cell-cell adhesion by homophilic and heterophilic interactions leading to cell aggregation. These interactions are also important for neuron-neuron or neuron-glia associations, which are important for the development and function of the central nervous system. IGSF4D is downregulated in lung cancer, suggesting a possible role in tumor suppression.

REFERENCES

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2. Katoh, M. and Katoh, M. 2004. Identification and characterization of human TMEM25 and mouse Tmem25 genes in silico. *Oncol. Rep.* 12: 429-433.
3. Biederer, T. 2006. Bioinformatic characterization of the SynCAM family of immunoglobulin-like domain-containing adhesion molecules. *Genomics* 87: 139-150.
4. Online Mendelian Inheritance in Man, OMIM™. 2006. Johns Hopkins University, Baltimore, MD. MIM Number: 609938. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
5. Pellissier, F., et al. 2007. The adhesion molecule Necl-3/SynCAM-2 localizes to myelinated axons, binds to oligodendrocytes and promotes cell adhesion. *BMC Neurosci.* 8: 90.
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CHROMOSOMAL LOCATION

Genetic locus: CADM2 (human) mapping to 3p12.1; Cadm2 (mouse) mapping to 16 C1.3.

SOURCE

IGSF4D (P-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an extracellular domain of IGSF4D of human origin.

STORAGE

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

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-99467 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

IGSF4D (P-16) is recommended for detection of IGSF4D 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 IGSF family members.

IGSF4D (P-16) is also recommended for detection of IGSF4D in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for IGSF4D siRNA (h): sc-78228, IGSF4D siRNA (m): sc-146191, IGSF4D shRNA Plasmid (h): sc-78228-SH, IGSF4D shRNA Plasmid (m): sc-146191-SH, IGSF4D shRNA (h) Lentiviral Particles: sc-78228-V and IGSF4D shRNA (m) Lentiviral Particles: sc-146191-V.

Molecular Weight of IGSF4D: 48 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.