

FSD2 (E-14): sc-240476

BACKGROUND

FSD2 (fibronectin type III and SPRY domain-containing protein 2), also known as SPRYD1 (SPRY domain-containing protein 1), is a 749 amino acid protein containing one B30.2/SPRY domain and 2 fibronectin type-III domains. The gene encoding FSD2 maps to human chromosome 15q25.2. Encoding more than 700 genes, chromosome 15 is made up of approximately 106 million base pairs and consists of about 3% of the human genome. Angelman and Prader-Willi syndromes are associated with loss of function or deletion of genes in the 15q11-q13 region. In the case of Angelman syndrome, this loss is due to inactivity of the maternal 15q11-q13 encoded UBE3A gene in the brain by either chromosomal deletion or mutation. Prader-Willi syndrome, Tay-Sachs disease and Marfan syndrome are also associated with chromosome 15.

REFERENCES

1. Cachón-González, et al. 2006. Effective gene therapy in an authentic model of Tay-Sachs-related diseases. *Proc. Natl. Acad. Sci. USA* 103: 10373-10378.
2. Zody, M.C., et al. 2006. Analysis of the DNA sequence and duplication history of human chromosome 15. *Nature* 440: 671-675.
3. Diene, G., et al. 2007. The Prader-Willi syndrome. *Ann. Endocrinol.* 68: 129-137.
4. Lalande, M., et al. 2007. Molecular epigenetics of Angelman syndrome. *Cell. Mol. Life Sci.* 64: 947-960.
5. Maegawa, G.H., et al. 2007. Pyrimethamine as a potential pharmacological chaperone for late-onset forms of GM2 gangliosidosis. *J. Biol. Chem.* 282: 9150-9161.
6. Makoff, A.J., et al. 2007. Detailed analysis of 15q11-q14 sequence corrects errors and gaps in the public access sequence to fully reveal large segmental duplications at breakpoints for Prader-Willi, Angelman, and inv dup(15) syndromes. *Genome Biol.* 8: R114
7. Ramirez, F., et al. 2007. Fibrillin-rich microfibrils: Structural determinants of morphogenetic and homeostatic events. *J. Cell. Physiol.* 213: 326-330.
8. ten Dijke, P., et al. 2007. Extracellular control of TGF β signalling in vascular development and disease. *Nat. Rev. Mol. Cell Biol.* 8: 857-869.

CHROMOSOMAL LOCATION

Genetic locus: FSD2 (human) mapping to 15q25.2; Fsd2 (mouse) mapping to 7 D3.

SOURCE

FSD2 (E-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of FSD2 of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-240476 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

FSD2 (E-14) is recommended for detection of FSD2 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 FSD1 or FSD1L.

FSD2 (E-14) is also recommended for detection of FSD2 in additional species, including equine and porcine.

Suitable for use as control antibody for FSD2 siRNA (h): sc-90283, FSD2 siRNA (m): sc-145256, FSD2 shRNA Plasmid (h): sc-90283-SH, FSD2 shRNA Plasmid (m): sc-145256-SH, FSD2 shRNA (h) Lentiviral Particles: sc-90283-V and FSD2 shRNA (m) Lentiviral Particles: sc-145256-V.

Molecular Weight of FSD2: 85 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.