

DGAT2L7 (C-14): sc-246449

BACKGROUND

DGAT2L7 (putative diacylglycerol O-acyltransferase 2-like protein 7) is a 249 amino acid protein belonging to the diacylglycerol acyltransferase family. DGAT2L7 is believed to function as an acyltransferase, with fatty acyl-CoA as its substrate. The gene encoding DGAT2L7 maps to human chromosome 7q22.1. Chromosome 7 is approximately 158 million bases long, encodes over 1,000 genes and makes up approximately 5% of the human genome. Chromosome 7 has been linked to osteogenesis imperfecta, Pendred syndrome, lissencephaly, citrullinemia and Shwachman-Diamond syndrome. Deletions of portions of the q arm of chromosome 7 are linked to myeloid disorders, including acute myelogenous leukemia and myelodysplasia.

REFERENCES

1. Tsipouras, P., et al. 1983. Restriction fragment length polymorphism associated with the pro α 2(I) gene of human type I procollagen. Application to a family with an autosomal dominant form of osteogenesis imperfecta. *J. Clin. Invest.* 72: 1262-1267.
2. Liang, H., et al. 1998. Molecular anatomy of chromosome 7q deletions in myeloid neoplasms: evidence for multiple critical loci. *Proc. Natl. Acad. Sci. USA* 95: 3781-3785.
3. Hillier, L.W., et al. 2003. The DNA sequence of human chromosome 7. *Nature* 424: 157-164.
4. Cheng, D., et al. 2003. Identification of acyl coenzyme A:monoacylglycerol acyltransferase 3, an intestinal specific enzyme implicated in dietary fat absorption. *J. Biol. Chem.* 278: 13611-13614.
5. Winter, A., et al. 2003. Genomic organization of the DGAT2/MOGAT gene family in cattle (*Bos taurus*) and other mammals. *Cytogenet. Genome Res.* 102: 42-47.
6. Schoch, C., et al. 2005. Genomic gains and losses influence expression levels of genes located within the affected regions: a study on acute myeloid leukemias with trisomy 8, 11, or 13, monosomy 7, or deletion 5q. *Leukemia* 19: 1224-1228.
7. Eckert, M.A., et al. 2006. The neurobiology of Williams syndrome: cascading influences of visual system impairment? *Cell. Mol. Life Sci.* 63: 1867-1875.
8. Leone, G., et al. 2007. Therapy-related leukemia and myelodysplasia: susceptibility and incidence. *Haematologica* 92: 1389-1398.

CHROMOSOMAL LOCATION

Genetic locus: DGAT2L7 (human) mapping to 7q22.1.

SOURCE

DGAT2L7 (C-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of DGAT2L7 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 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-246449 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

DGAT2L7 (C-14) is recommended for detection of DGAT2L7 of 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 DGAT2L6.

Suitable for use as control antibody for DGAT2L7 siRNA (h): sc-89391, DGAT2L7 shRNA Plasmid (h): sc-89391-SH and DGAT2L7 shRNA (h) Lentiviral Particles: sc-89391-V.

Molecular Weight of DGAT2L7: 28 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.