

FADS7 (NB-B10): sc-134338

BACKGROUND

Members of the fatty acid desaturase (FADS) family regulate the desaturation of fatty acids by introducing double bonds between defined carbons of fatty acyl chains, thereby playing an essential role in the lipid metabolic pathway. Members of this family share N-terminal cytochrome b5-like domains, C-terminal multiple membrane-spanning desaturase regions and three histidine box motifs. FADS7, also known as DEGS1 (degenerative spermatocyte homolog 1, lipid desaturase), DES1, MLD or MIG15, is a 323 amino acid multi-pass membrane protein that localizes to the endoplasmic reticulum and belongs to the FADS family. Expressed ubiquitously, FADS7 exhibits sphingolipid- δ -4-desaturase activity and is able to convert D-erythro-sphinganine to D-erythro-sphingosine. The gene encoding FADS7 maps to human chromosome 1, which spans 260 million base pairs, contains over 3,000 genes and comprises nearly 8% of the human genome.

REFERENCES

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5. Malerba, G., Schaeffer, L., Xumerle, L., Klopp, N., Trabetti, E., Biscuola, M., Cavallari, U., Galavotti, R., Martinelli, N., Guarini, P., Girelli, D., Olivieri, O., Corrocher, R., Heinrich, J., Pignatti, P.F. and Illig, T. 2008. SNPs of the FADS gene cluster are associated with polyunsaturated fatty acids in a cohort of patients with cardiovascular disease. *Lipids* 43: 289-299.

CHROMOSOMAL LOCATION

Genetic locus: DEGS1 (human) mapping to 1q42.11; Degs1 (mouse) mapping to 1 H5.

SOURCE

FADS7 (NB-B10) is a mouse monoclonal antibody raised against recombinant FADS7 protein of human origin.

PRODUCT

Each vial contains 200 μ l ascites containing IgM with < 0.1% sodium azide.

PROTOCOLS

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

APPLICATIONS

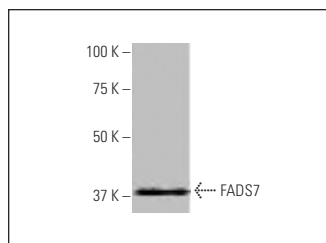
FADS7 (NB-B10) is recommended for detection of FADS7 of human origin and Degs1 of mouse and rat origin by Western Blotting (starting dilution: to be determined by researcher, dilution range 1:100-1:5000), immunoprecipitation [1-2 μ l per 100-500 μ g of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution to be determined by researcher, dilution range 1:30-1:5000).

Suitable for use as control antibody for FADS7 siRNA (h): sc-78658, Degs1 siRNA (m): sc-142987, FADS7 shRNA Plasmid (h): sc-78658-SH, Degs1 shRNA Plasmid (m): sc-142987-SH, FADS7 shRNA (h) Lentiviral Particles: sc-78658-V and Degs1 shRNA (m) Lentiviral Particles: sc-142987-V.

Molecular Weight of FADS7: 34 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227.

DATA



FADS7 (NB-B10): sc-134338. Western blot analysis of FADS7 expression in Hep G2 whole cell lysate.

STORAGE

For immediate and continuous use, store at 4° C for up to one month. For sporadic use, freeze in working aliquots in order to avoid repeated freeze/thaw cycles. If turbidity is evident upon prolonged storage, clarify solution by centrifugation.

RESEARCH USE

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