

FADS2 (N-12): sc-109272

BACKGROUND

Members of the fatty acid desaturase (FADS) family, including FADS1, FADS2 and FADS3, 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 β 5-like domains, C-terminal multiple membrane-spanning desaturase regions and 3 histidine box motifs. FADS2 (fatty acid desaturase 2), also known as D6D, DES6, LLCCL2 or TU13, is a 444 amino acid multi-pass membrane protein that localizes to the endoplasmic reticulum and contains one cytochrome β 5 heme-binding domain. Expressed in adult and fetal heart and in adult liver, brain, lung and retina, FADS2 functions as a component of a lipid metabolic pathway and catalyzes the first step in the pathway, namely the formation of unsaturated fatty acids from polyunsaturated fatty acids. Defects in the gene encoding FADS2 are the cause of cause of fatty acid δ -6-desaturase deficiency, an affliction that is characterized by skin abnormalities, corneal ulceration and growth failure. Multiple isoforms of FADS2 exist due to alternative splicing events.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: FADS2 (human) mapping to 11q12.2; Fads2 (mouse) mapping to 19 A.

SOURCE

FADS2 (N-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an N-terminal cytoplasmic domain of FADS2 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-109272 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

FADS2 (N-12) is recommended for detection of FADS2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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); non cross-reactive with FADS2 isoform 2.

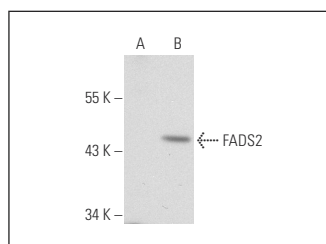
FADS2 (N-12) is also recommended for detection of FADS2 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for FADS2 siRNA (h): sc-96449, FADS2 siRNA (m): sc-145003, FADS2 shRNA Plasmid (h): sc-96449-SH, FADS2 shRNA Plasmid (m): sc-145003-SH, FADS2 shRNA (h) Lentiviral Particles: sc-96449-V and FADS2 shRNA (m) Lentiviral Particles: sc-145003-V.

Molecular Weight of FADS2: 52 kDa.

Positive Controls: AN3 CA cell lysate: sc-24662, Ramos cell lysate: sc-2216 or FADS2 (h): 293 Lysate: sc-110907.

DATA



FADS2 (N-12): sc-109272. Western blot analysis of FADS2 expression in non-transfected: sc-110760 (A) and human FADS2 transfected: sc-110907 (B) 293 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.

RESEARCH USE

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