

FADS3 (N-15): sc-242649

BACKGROUND

FADS3 (fatty acid desaturase 3), also known as cytochrome $\beta 5$ -related protein (CYB5RP), is a 445 amino acid protein belonging to the fatty acid desaturase family. Fatty acid desaturase proteins introduce double bonds between defined carbons of the fatty acyl chain to cause unsaturation of fatty acids. Fatty acid desaturase family members are fusion products composed of two conserved histidine motifs: an N-terminal cytochrome $\beta 5$ heme-binding domain and a C-terminal multiple membrane-spanning desaturase portion. The cytochrome $\beta 5$ heme-binding domain may contain an active site and may be responsible for metal ion binding. FADS3 is a multi-pass membrane protein localized to the endoplasmic reticulum and can be found in heart, uterus, lung, brainstem and liver.

REFERENCES

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3. Nakamura, M.T. and Nara, T.Y. 2004. Structure, function, and dietary regulation of $\delta 6$, $\delta 5$, and $\delta 9$ desaturases. *Annu. Rev. Nutr.* 24: 345-376.
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CHROMOSOMAL LOCATION

Genetic locus: FADS3 (human) mapping to 11q12.2; Fads3 (mouse) mapping to 19 A.

SOURCE

FADS3 (N-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an N-terminal cytoplasmic domain of FADS3 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-242649 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

FADS3 (N-15) is recommended for detection of FADS3 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 other FADS family members.

FADS3 (N-15) is also recommended for detection of FADS3 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for FADS3 siRNA (h): sc-96983, FADS3 siRNA (m): sc-145004, FADS3 shRNA Plasmid (h): sc-96983-SH, FADS3 shRNA Plasmid (m): sc-145004-SH, FADS3 shRNA (h) Lentiviral Particles: sc-96983-V and FADS3 shRNA (m) Lentiviral Particles: sc-145004-V.

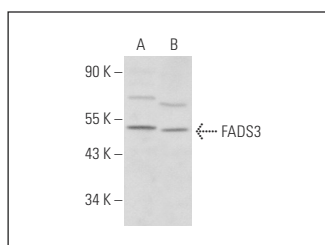
Molecular Weight of FADS3: 51 kDa.

Positive Controls: mouse brain extract: sc-2253 or RT-4 whole cell lysate: sc-364257.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



FADS3 (N-15): sc-242649. Western blot analysis of FADS3 expression in mouse brain tissue extract (A) and RT-4 whole cell lysate (B).

STORAGE

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

PROTOCOLS

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