SANTA CRUZ BIOTECHNOLOGY, INC.

ZDHHC18 (C-15): sc-162434

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The Power to Question

BACKGROUND

Zinc-finger proteins contain DNA-binding domains and have a wide variety of functions, most of which encompass some form of transcriptional activation or repression. ZDHHC1 (zinc finger, DHHC-type containing 1), also known as ZNF377 (zinc-finger protein 377) or C16orf1, is a 485 amino acid multi-pass membrane protein that contains one DHHC-type zinc finger. Expressed in fetal heart, lung and kidney and also present in adult lung and pancreas, ZDHHC1 functions as a palmitoyltransferase that catalyzes the conversion of palmitoyl-CoA and protein-cysteine to S-palmitoyl protein and CoA. Like ZDHHC1, ZDHHC5, ZDHHC6, ZDHHC7 and ZDHHC18 each contain one DHHC-type zinc finger through which they convey palmitoyltransferase activity against a broad range of substrates, including H-Ras, SNAP 25 and $GABA_A$ R proteins.

REFERENCES

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3. Nagase, T., et al. 2000. Prediction of the coding sequences of unidentified human genes. XIX. The complete sequences of 100 new cDNA clones from brain which code for large proteins *in vitro*. DNA Res. 7: 347-355.
4. Chaudhary, J., et al. 2002. Identification of a novel gene product, Sertoli cell gene with a zinc-finger domain, that is important for FSH activation of testicular Sertoli cells. Endocrinology 143: 426-435.
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6. Mitchell, D.A., et al. 2006. Protein palmitoylation by a family of DHHC protein S-acyltransferases. J. Lipid Res. 47: 1118-1127.
7. González Montoro, A., et al. 2009. A novel motif at the C-terminus of palmitoyltransferases is essential for Swf1 and Pfa3 function *in vivo*. Biochem. J. 419: 301-308.
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CHROMOSOMAL LOCATION

Genetic locus: ZDHHC18 (human) mapping to 1p36.11; Zdhhc18 (mouse) mapping to 4 D2.3.

SOURCE

ZDHHC18 (C-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of ZDHHC18 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 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-162434 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

ZDHHC18 (C-15) is recommended for detection of ZDHHC18 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg 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 ZDHHC family members.

ZDHHC18 (C-15) is also recommended for detection of ZDHHC18 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for ZDHHC18 siRNA (h): sc-88163, ZDHHC18 siRNA (m): sc-155495, ZDHHC18 shRNA Plasmid (h): sc-88163-SH, ZDHHC18 shRNA Plasmid (m): sc-155495-SH, ZDHHC18 shRNA (h) Lentiviral Particles: sc-88163-V and ZDHHC18 shRNA (m) Lentiviral Particles: sc-155495-V.

Molecular Weight of ZDHHC18: 42 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) 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.

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.