ZDHHC7 (H-68): sc-135352



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 multipass 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

- 1. Thiesen, H.J. 1990. Multiple genes encoding zinc finger domains are expressed in human T cells. New Biol. 2: 363-374.
- 2. Putilina, T., et al. 1999. The DHHC domain: a new highly conserved cysteine-rich motif. Mol. Cell. Biochem. 195: 219-226.
- 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.
- 5. Linder, M.E., et al. 2004. Model organisms lead the way to protein palmitoyltransferases. J. Cell Sci. 117: 521-526.
- Mitchell, D.A., et al. 2006. Protein palmitoylation by a family of DHHC protein S-acyltransferases. J. Lipid Res. 47: 1118-1127.
- 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.
- 8. Greaves, J., et al. 2009. The hydrophobic cysteine-rich domain of SNAP25 couples with downstream residues to mediate membrane interactions and recognition by DHHC palmitoyl transferases. Mol. Biol. Cell 20: 1845-1854.

CHROMOSOMAL LOCATION

Genetic locus: ZDHHC7 (human) mapping to 16q24.1; Zdhhc7 (mouse) mapping to 8 E1.

SOURCE

ZDHHC7 (H-68) is a rabbit polyclonal antibody raised against amino acids 241-308 mapping at the C-terminus of ZDHHC7 of human origin.

PRODUCT

Each vial contains 200 μg lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

ZDHHC7 (H-68) is recommended for detection of ZDHHC7 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.

ZDHHC7 (H-68) is also recommended for detection of ZDHHC7 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for ZDHHC7 siRNA (h): sc-93249, ZDHHC7 siRNA (m): sc-155507, ZDHHC7 shRNA Plasmid (h): sc-93249-SH, ZDHHC7 shRNA Plasmid (m): sc-155507-SH, ZDHHC7 shRNA (h) Lentiviral Particles: sc-93249-V and ZDHHC7 shRNA (m) Lentiviral Particles: sc-155507-V.

Molecular Weight of ZDHHC7 isoform: 39/35 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

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.

PROTOCOLS

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

Santa Cruz Biotechnology, Inc. 1.800.457.3801 831.457.3801 Fax 831.457.3801 Europe +00800 4573 8000 49 6221 4503 0 www.scbt.com