SANTA CRUZ BIOTECHNOLOGY, INC.

ZDHHC22 (C-5): sc-514005

SANTA CRUZ BIOTECHNOLOGY

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. ZDHHC22 (zinc finger, DHHC domain containing 22) is a 263 amino acid multi-pass membrane protein that contains one DHHC-type zinc finger and is thought to function as a palmitoyltransferase, catalyzing the transformation of palmitoyl-CoA and a cysteine-conjugated protein to an S-palmitoyl protein and free CoA. ZDHHC22 is considered a potential marker for early detection of colon neoplasia. The gene encoding ZDHHC22 maps to human chromosome 14, which houses over 700 genes and comprises nearly 3.5% of the human genome. Chromosome 14 encodes the presinilin 1 (PSEN1) gene, which is one of the three key genes associated with the development of Alzheimer's disease (AD). The SERPINA1 gene is also located on chromosome 14 and, when defective, leads to the genetic disorder α1-antitrypsin deficiency, which is characterized by severe lung complications and liver dysfunction.

REFERENCES

1. Putilina, T., et al. 1999. The DHHC domain: a new highly conserved cysteine-rich motif. Mol. Cell. Biochem. 195: 219-226.
2. Roth, A.F., et al. 2002. The yeast DHHC cysteine-rich domain protein Akr1p is a palmitoyl transferase. J. Cell Biol. 159: 23-28.
3. Heilig, R., et al. 2003. The DNA sequence and analysis of human chromosome 14. Nature 421: 601-607.
4. Ohno, Y., et al. 2006. Intracellular localization and tissue-specific distribution of human and yeast DHHC cysteine-rich domain-containing proteins. Biochim. Biophys. Acta 1761: 474-483.
5. Mitchell, D.A., et al. 2006. Protein palmitoylation by a family of DHHC protein S-acyltransferases. J. Lipid Res. 47: 1118-1127.

CHROMOSOMAL LOCATION

Genetic locus: ZDHHC22 (human) mapping to 14q24.3.

SOURCE

ZDHHC22 (C-5) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 68-90 within an internal region of ZDHHC22 of human origin.

PRODUCT

Each vial contains 200 µg IgM kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-514005 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

STORAGE

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

APPLICATIONS

ZDHHC22 (C-5) is recommended for detection of ZDHHC22 of human origin by Western Blotting (starting dilution 1:100, 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).

Suitable for use as control antibody for ZDHHC22 siRNA (h): sc-92191, ZDHHC22 shRNA Plasmid (h): sc-92191-SH and ZDHHC22 shRNA (h) Lentiviral Particles: sc-92191-V.

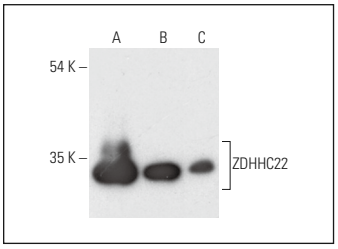
Molecular Weight of ZDHHC22: 29 kDa.

Positive Controls: human kidney extract: sc-363764, human thyroid extract: sc-363782 or human lateral ventricle tissue extract.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein L-Agarose: sc-2336 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



ZDHHC22 (C-5): sc-514005. Western blot analysis of ZDHHC22 expression in human kidney (**A**), human thyroid (**B**) and human lateral ventricle (**C**) tissue extracts.

RESEARCH USE

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

PROTOCOLS

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