

ZDHHC20 (N-15): sc-84667

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. ZDHHC20 (zinc finger, DHHC-type containing 20) is a 365 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. In response to DNA damage, ZDHHC20, which exists as multiple alternatively spliced isoforms, may be phosphorylated by ATM or ATR. The gene encoding ZDHHC20 maps to human chromosome 13, which houses over 400 genes, such as BRCA2 and RB1, and comprises nearly 4% of the human genome.

REFERENCES

1. Putilina, T., Wong, P. and Gentleman, S. 1999. The DHHC domain: a new highly conserved cysteine-rich motif. *Mol. Cell. Biochem.* 195: 219-226.
2. Roth, A.F., Feng, Y., Chen, L. and Davis, N.G. 2002. The yeast DHHC cysteine-rich domain protein Akr1p is a palmitoyl transferase. *J. Cell Biol.* 159: 23-28.
3. Ohno, Y., Kihara, A., Sano, T. and Igarashi, Y. 2006. Intracellular localization and tissue-specific distribution of human and yeast DHHC cysteine-rich domain-containing proteins. *Biochim. Biophys. Acta* 1761: 474-483.
4. Mitchell, D.A., Vasudevan, A., Linder, M.E. and Deschenes, R.J. 2006. Protein palmitoylation by a family of DHHC protein S-acyltransferases. *J. Lipid Res.* 47: 1118-1127.
5. Matsuoka, S., Ballif, B.A., Smogorzewska, A., McDonald, E.R., Hurov, K.E., Luo, J., Bakalarski, C.E., Zhao, Z., Solimini, N., Lerenthal, Y., Shiloh, Y., Gygi, S.P. and Elledge, S.J. 2007. ATM and ATR substrate analysis reveals extensive protein networks responsive to DNA damage. *Science* 316: 1160-1166.

CHROMOSOMAL LOCATION

Genetic locus: ZDHHC20 (human) mapping to 13q12.11.

SOURCE

ZDHHC20 (N-15) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping near the N-terminus of ZDHHC20 of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

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

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-84667 X, 100 µg/0.1 ml.

STORAGE

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

APPLICATIONS

ZDHHC20 (N-15) is recommended for detection of ZDHHC20 of 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).

Suitable for use as control antibody for ZDHHC20 siRNA (h): sc-76954, ZDHHC20 shRNA Plasmid (h): sc-76954-SH and ZDHHC20 shRNA (h) Lentiviral Particles: sc-76954-V.

ZDHHC20 (N-15) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

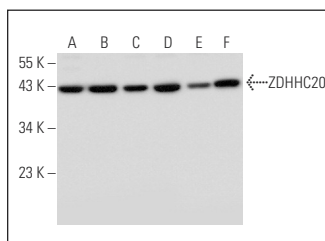
Molecular Weight of ZDHHC20: 42 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203, NCI-H460 whole cell lysate: sc-364235 or HeLa whole cell lysate: sc-2200.

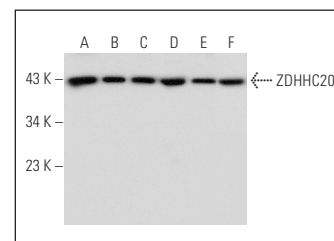
RECOMMENDED SECONDARY REAGENTS

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.

DATA



ZDHHC20 (N-15): sc-84667. Western blot analysis of ZDHHC20 expression in MCF7 (A), SHP-77 (B), HL-60 (C), MDA-MB-231 (D), ZR-75-1 (E) and HeLa (F) whole cell lysates.



ZDHHC20 (N-15): sc-84667. Western blot analysis of ZDHHC20 expression in K-562 (A), SW480 (B), Jurkat (C), NCI-H460 (D), Hep G2 (E) and COLO 205 (F) whole cell lysates.

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.