SANTA CRUZ BIOTECHNOLOGY, INC.

LDOC1 (2507C1a): sc-81103

The Power to Question

BACKGROUND

LDOC1 (leucine zipper protein down-regulated in cancer cells) is a 146 amino acid nuclear protein encoded by the human gene LDOC1. This protein contains a leucine zipper-like motif and a proline-rich region that shares marked similarity with an SH3-binding domain. The protein localizes to the nucleus and is downregulated in some cancer cell lines. It is thought to regulate the transcriptional response mediated by the nuclear factor κB (NFκB). The gene has been proposed as a tumor suppressor gene whose protein product may have an important role in the development and/or progression of some cancers.

REFERENCES

1. Nagasaki, K., Manabe, T., Hanzawa, H., Maass, N., Tsukada, T. and Yamaguchi, K. 1999. Identification of a novel gene, LDOC1, down-regulated in cancer cell lines. Cancer Lett. 140: 227-234.
2. Nagasaki, K., Schem, C., von Kaisenberg, C., Biallek, M., Rösel, F., Jonat, W. and Maass, N. 2003. Leucine-zipper protein, LDOC1, inhibits NFκB activation and sensitizes pancreatic cancer cells to apoptosis. Int. J. Cancer 105: 454-458.
3. Chih, D.Y., Park, D.J., Gross, M., Idos, G., Vuong, P.T., Hirama, T., Chumakov, A.M., Said, J. and Koeffler, H.P. 2004. Protein partners of C/EBPε. Exp. Hematol. 32: 1173-1181.
4. Inoue, M., Takahashi, K., Niide, O., Shibata, M., Fukuzawa, M. and Ra, C. 2005. LDOC1, a novel MZF-1-interacting protein, induces apoptosis. FEBS Lett. 579: 604-608.
5. Baffoe-Bonnie, A.B., Smith, J.R., Stephan, D.A., Schleutker, J., Carpten, J.D., Kainu, T., Gillanders, E.M., Matikainen, M., Teslovich, T.M., Tammela, T., Sood, R., Balshem, A.M., Scarborough, S.D., Xu, J., Isaacs, W.B., Trent, J.M., Kallioniemi, O.P. and Bailey-Wilson, J.E. 2005. A major locus for hereditary prostate cancer in Finland: localization by linkage disequilibrium of a haplotype in the HPCX region. Hum. Genet. 117: 307-316.
6. Mizutani, K., Koike, D., Suetsugu, S. and Takenawa, T. 2005. WAVE3 functions as a negative regulator of LDOC1. J. Biochem. 138: 639-646.

CHROMOSOMAL LOCATION

Genetic locus: LDOC1 (human) mapping to Xq27.1.

SOURCE

LDOC1 (2507C1a) is a mouse monoclonal antibody raised against a recombinant protein corresponding to the C-terminal region of LDOC1 of human origin.

PRODUCT

Each vial contains 100 µg IgG_{2a} in 1.0 ml of PBS with < 0.1% sodium azide and 1.0% stabilizer protein.

STORAGE

For immediate and continuous use, store at 4° C for up to one month. For sporadic use, freeze in working aliquots in order to avoid repeated freeze/thaw cycles. If turbidity is evident upon prolonged storage, clarify solution by centrifugation.

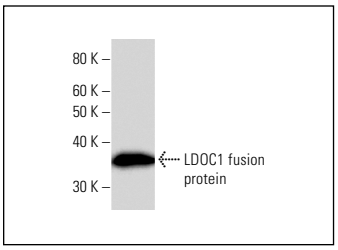
APPLICATIONS

LDOC1 (2507C1a) is recommended for detection of LDOC1 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)].

Suitable for use as control antibody for LDOC1 siRNA (h): sc-91180, LDOC1 shRNA Plasmid (h): sc-91180-SH and LDOC1 shRNA (h) Lentiviral Particles: sc-91180-V.

Molecular Weight of LDOC1: 17 kDa.

DATA



LDOC1 (2507C1a): sc-81103. Western Blot analysis of human recombinant LDOC1 fusion protein.

SELECT PRODUCT CITATIONS

1. Lee, C.H., Yang, J.R., Chen, C.Y., Tsai, M.H., Hung, P.F., Chen, S.J., Chiang, S.L., Chang, H. and Lin, P. 2019. Novel Stat3 inhibitor LDOC1 targets phospho-JAK2 for degradation by interacting with LNX1 and regulates the aggressiveness of lung cancer. Cancers 11 pii: E63.

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.