

# LDOC1 (H-40): sc-98390

## BACKGROUND

LDOC1 (leucine zipper protein downregulated 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  $\kappa$ B (NF- $\kappa$ B). 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, downregulated 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 NF- $\kappa$ B 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., Hiram, T., Chumakov, A.M., Said, J. and Koeffler, H.P. 2004. Protein partners of C/EBP $\epsilon$ . *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 (H-40) is a rabbit polyclonal antibody raised against amino acids 1-40 mapping at the N-terminus of LDOC1 of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## STORAGE

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

## APPLICATIONS

LDOC1 (H-40) is recommended for detection of LDOC1 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g 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).

LDOC1 (H-40) is also recommended for detection of LDOC1 in additional species, including equine, bovine and porcine.

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.

## 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.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.



Try **LDOC1 (2507C1a): sc-81103**, our highly recommended monoclonal alternative to LDOC1 (H-40).