

C23 (H-250): sc-13057

BACKGROUND

C23 (nucleolin, NCL) is a eukaryotic nucleolar phosphoprotein that influences synthesis and maturation of ribosomes. C23 localizes to dense fibrillar regions of the nucleolus. It contains four RNA binding domains that interact with pre-rRNA during synthesis. C23 can influence RNA processing, ribosomal gene transcription and nucleolar targeting of ribosomal components. It is known to associate with a variety of proteins, including the nucleolar protein B23. Phosphorylation by Cdc2 and casein kinase II causes translocation of C23 from the nucleolus to the cytoplasm. Mitotic phosphorylated forms of Bcl-2 are present in nuclear structures in prophase HeLa cells together with C23 and Ki-67. Retinoic acid-induced apoptosis leads to C23 down-regulation and Bcl-2 mRNA instability. C23 binds the human telomerase reverse transcriptase subunit (TERT) through interactions with its RNA binding domain 4 and carboxyl-terminal RGG domain, and this interaction is critical for the nucleolar localization of human TERT.

CHROMOSOMAL LOCATION

Genetic locus: NCL (human) mapping to 2q37.1; Ncl (mouse) mapping to 1 D.

SOURCE

C23 (H-250) is a rabbit polyclonal antibody raised against amino acids 271-520 of C23 of human origin.

PRODUCT

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

APPLICATIONS

C23 (H-250) is recommended for detection of C23 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

C23 (H-250) is also recommended for detection of C23 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for C23 siRNA (h): sc-29230, C23 siRNA (m): sc-29231, C23 shRNA Plasmid (h): sc-29230-SH, C23 shRNA Plasmid (m): sc-29231-SH, C23 shRNA (h) Lentiviral Particles: sc-29230-V and C23 shRNA (m) Lentiviral Particles: sc-29231-V.

Molecular Weight of C23: 110 kDa.

Positive Controls: CCRF-CEM cell lysate: sc-2225, KNRK nuclear extract: sc-2141 or Jurkat whole cell lysate: sc-2204.

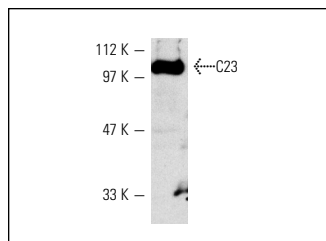
STORAGE

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

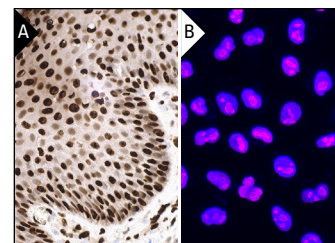
RESEARCH USE

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

DATA



C23 (H-250): sc-13057. Western blot analysis of C23 expression in KNRK nuclear extract.



C23 (H-250): sc-13057. Immunoperoxidase staining of formalin fixed, paraffin-embedded human cervix tissue showing nucleolar and nuclear staining of squamous epithelial cells (A). donkey anti-rabbit IgG-CFL 647: sc-362291. Immunofluorescence staining of formalin-fixed HeLa cells showing nucleolar localization and nuclear DAPI counterstain. Antibody tested: C23 (H-250): sc-13057. Donkey anti-rabbit IgG was conjugated to CruzFluor™ 647 succinimidyl ester: sc-362620. Kindly provided by Yang Xiang, Ph.D., Division of Newborn Medicine, Boston Childrens Hospital, Cell Biology Department, Harvard Medical School (B).

SELECT PRODUCT CITATIONS

1. Aglipay, J.A., et al. 2003. A member of the Pryn family, IFI-16, is a novel BRCA1-associated protein involved in the p53-mediated apoptosis pathway. *Oncogene* 22: 8931-8938.
2. Lindenboim, L., et al. 2010. Regulation of stress-induced nuclear protein redistribution: a new function of Bax and Bak uncoupled from Bcl-x_L. *Cell Death Differ.* 17: 346-359.
3. Donica, C.L., et al. 2011. Orphanin FQ/nociceptin activates nuclear factor κ B. *J. Neuroimmune Pharmacol.* 6: 617-625.
4. Gilbert-Sirieix, M., et al. 2011. Wnt/ β -catenin signaling pathway is a direct enhancer of thyroid transcription factor-1 in human papillary thyroid carcinoma cells. *PLoS ONE* 6: e22280.
5. Thongtan, T., et al. 2012. Characterization of putative Japanese encephalitis virus receptor molecules on microglial cells. *J. Med. Virol.* 84: 615-623.
6. Raychaudhuri, S. 2012. MicroRNAs overexpressed in growth-restricted rat skeletal muscles regulate the glucose transport in cell culture targeting central TGF- β factor SMAD4. *PLoS ONE* 7: e34596.
7. Akhrymuk, I., et al. 2012. Evasion of the innate immune response: the old world α virus nsP2 protein induces rapid degradation of Rpb1, a catalytic subunit of RNA polymerase II. *J. Virol.* 86: 7180-7191.



Try **C23 (MS-3): sc-8031** or **C23 (D-6): sc-17826**, our highly recommended monoclonal alternatives to C23 (H-250). Also, for AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647 conjugates, see **C23 (MS-3): sc-8031**.