

# Cytokeratin 23 (H-130): sc-134900

## BACKGROUND

Cytokeratins comprise a diverse group of intermediate filament proteins that are expressed in both keratinized and non-keratinized epithelial tissue. The cytokeratin proteins play a critical role in differentiation, as well as tissue specialization and function, and maintenance of the overall structural integrity of epithelial cells. There are two types of cytokeratins, namely the type I cytokeratins and the type II cytokeratins. Cytokeratin 23, also known as KRT23, CK23 or HAIK1, is a 422 amino acid intermediate filament protein that functions as a heterotetramer that is composed of two type I and two type II cytokeratins. Characteristic of most Cytokeratins, Cytokeratin 23 is thought to participate in maintaining the structural integrity of a variety of cells. Cytokeratin 23 expression is induced in pancreatic cancer cells, suggesting a possible role in carcinogenesis.

## REFERENCES

- Zhang, J.S., Wang, L., Huang, H., Nelson, M. and Smith, D.I. 2001. Keratin 23 (K23), a novel acidic keratin, is highly induced by histone deacetylase inhibitors during differentiation of pancreatic cancer cells. *Genes Chromosomes Cancer* 30: 123-135.
- Hesse, M., Magin, T.M. and Weber, K. 2001. Genes for intermediate filament proteins and the draft sequence of the human genome: novel keratin genes and a surprisingly high number of pseudogenes related to keratin genes 8 and 18. *J. Cell Sci.* 114: 2569-2575.
- Tolstonog, G.V., Sabasch, M. and Traub, P. 2002. Cytoplasmic intermediate filaments are stably associated with nuclear matrices and potentially modulate their DNA-binding function. *DNA Cell Biol.* 21: 213-239.
- Online Mendelian Inheritance in Man, OMIM<sup>™</sup>. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 606194: World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
- Suzuki, A., Ji, G., Numabe, Y., Muramatsu, M., Gomi, K., Kanazashi, M., Ogata, Y., Shimizu, E., Shibukawa, Y., Ito, A., Ito, T., Sugaya, A., Arai, T., Yamada, S., Deguchi, S. and Kamoi, K. 2004. Single nucleotide polymorphisms associated with aggressive periodontitis and severe chronic periodontitis in Japanese. *Biochem. Biophys. Res. Commun.* 317: 887-892.
- Schweizer, J., Bowden, P.E., Coulombe, P.A., Langbein, L., Lane, E.B., Magin, T.M., Maltais, L., Omary, M.B., Parry, D.A., Rogers, M.A. and Wright, M.W. 2006. New consensus nomenclature for mammalian keratins. *J. Cell. Biol.* 174: 169-174.

## CHROMOSOMAL LOCATION

Genetic locus: KRT23 (human) mapping to 17q21.2; Krt23 (mouse) mapping to 11 D.

## SOURCE

Cytokeratin 23 (H-130) is a rabbit polyclonal antibody raised against amino acids 161-290 mapping within an internal region of Cytokeratin 23 of human origin.

## RESEARCH USE

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

## PRODUCT

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

## APPLICATIONS

Cytokeratin 23 (H-130) is recommended for detection of Cytokeratin 23 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

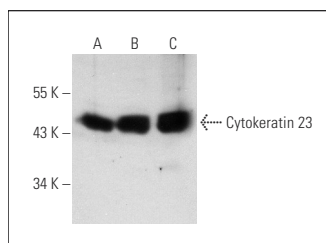
Cytokeratin 23 (H-130) is also recommended for detection of Cytokeratin 23 in additional species, including canine.

Suitable for use as control antibody for Cytokeratin 23 siRNA (h): sc-94056, Cytokeratin 23 siRNA (m): sc-142763, Cytokeratin 23 shRNA Plasmid (h): sc-94056-SH, Cytokeratin 23 shRNA Plasmid (m): sc-142763-SH, Cytokeratin 23 shRNA (h) Lentiviral Particles: sc-94056-V and Cytokeratin 23 shRNA (m) Lentiviral Particles: sc-142763-V.

Molecular Weight of Cytokeratin 23: 48 kDa.

Positive Controls: JAR cell lysate: sc-2276, HeLa whole cell lysate: sc-2200 or HeLa nuclear extract: sc-2120.

## DATA



Cytokeratin 23 (H-130): sc-134900. Western blot analysis of Cytokeratin 23 expression in JAR (A) and HeLa (B) whole cell lysates and HeLa nuclear extract (C).

## STORAGE

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

## PROTOCOLS

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

**MONOS**  
Satisfaction  
Guaranteed

Try **Cytokeratin 23 (C-1): sc-365892** or **Cytokeratin 23 (14L-3): sc-100927**, our highly recommended monoclonal alternatives to Cytokeratin 23 (H-130).