

Cytokeratin 20 (N-13): sc-17112

BACKGROUND

Cytokeratins comprise a diverse group of intermediate filament proteins (IFPs) that are expressed as pairs in both keratinized and non-keratinized epithelial tissue, where they constitute up to 85% of mature keratinocytes in the vertebrate epidermis. Cytokeratins play a critical role in differentiation and tissue specialization and function to maintain the overall structural integrity of epithelial cells. The α -helical coiled-coil dimers associate laterally end-to-end to form 10 nm diameter filaments. Cytokeratins are useful markers of tissue differentiation, and in addition, they aid in the characterization of malignant tumors. Cytokeratin 20 is abundantly expressed in goblet cells and enterocytes of the gastrointestinal tract, and is a useful marker of pancreatic and colorectal cancer. Cytokeratin 20 is also helpful in distinguishing different types of highly related carcinomas, such as renal oncocytomas from renal cell carcinomas.

REFERENCES

1. Moll, R., et al. 1993. The human gene encoding Cytokeratin 20 and its expression during fetal development and in gastrointestinal carcinomas. *Differentiation* 53: 75-93.
2. van der Velden, L.A., et al. 1993. Cytokeratin expression in normal and (pre)malignant head and neck epithelia: an overview. *Head Neck* 15: 133-146.
3. Wauters, C.C., et al. 1995. Keratins 7 and 20 as diagnostic markers of carcinomas metastatic to the ovary. *Hum. Pathol.* 26: 852-855.
4. Marceau, N., et al. 1995. Cytokeratin expression, fibrillar organization and subtle function in liver cells. *Biochem. Cell Biol.* 73: 619-625.
5. Fuchs, E. 1995. Keratins and the skin. *Annu. Rev. Cell. Dev. Biol.* 11: 123-153.
6. Quillien, V., et al. 1995. Serum and tissue distribution of a fragment of Cytokeratin 19 (CYFRA 21-1) in lung cancer patients. *Anticancer Res.* 15: 2857-2863.
7. Mukhopadhyay, T., et al. 1996. Functional inactivation of p53 by antisense RNA induces invasive ability of lung carcinoma cells and downregulates cytokeratin synthesis. *Anticancer Res.* 16: 1683-1689.

CHROMOSOMAL LOCATION

Genetic locus: KRT20 (human) mapping to 17q12; Krt20 (mouse) mapping to 11 D.

SOURCE

Cytokeratin 20 (N-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of Cytokeratin 20 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-17112 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

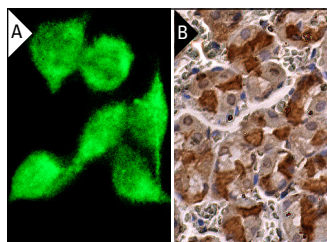
Cytokeratin 20 (N-13) is recommended for detection of Cytokeratin 20 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Cytokeratin 20 siRNA (h): sc-43313, Cytokeratin 20 siRNA (m): sc-43314, Cytokeratin 20 shRNA Plasmid (h): sc-43313-SH, Cytokeratin 20 shRNA Plasmid (m): sc-43314-SH, Cytokeratin 20 shRNA (h) Lentiviral Particles: sc-43313-V and Cytokeratin 20 shRNA (m) Lentiviral Particles: sc-43314-V.

Molecular Weight of Cytokeratin 20: 46 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200 or human colon extract: sc-363757.

DATA



Cytokeratin 20 (N-13): sc-17112. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoskeletal localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human stomach tissue showing cytoplasmic staining of glandular cells (B).

SELECT PRODUCT CITATIONS

1. Watanabe, H., et al. 2008. Regulation of pancreatic duct cell differentiation by phosphatidylinositol-3 kinase. *Biochem. Biophys. Res. Commun.* 370: 33-37.
2. Hirokawa, Y., et al. 2014. Colonic myofibroblast cell line stimulates colonoid formation. *Am. J. Physiol. Gastrointest. Liver Physiol.* 306: G547-G556.

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.



Try **Cytokeratin 20 (E-9): sc-271183** or **Cytokeratin 20 (SPM140): sc-56522**, our highly recommended monoclonal alternatives to Cytokeratin 20 (N-13).