

# Cytokeratin 10 (SPM262): sc-56518

## BACKGROUND

Cytokeratins comprise a diverse group of intermediate filament proteins (IFPs) that are expressed as pairs in both keratinized and non-keratinized epithelial tissue. Cytokeratins play a critical role in differentiation and tissue specialization and function to maintain the overall structural integrity of epithelial cells. Cytokeratins have been found to be useful markers of tissue differentiation, which is directly applicable to the characterization of malignant tumors. Cytokeratins 10 and 13 are present in the cytoskeletal region of a subset of squamous cell carcinomas. Cytokeratin 10 is a heterotetramer of two type I and two type II keratins, is generally associated with keratin 1, and is seen in all suprabasal cell layers including stratum corneum.

## REFERENCES

- Ivanyi, D., et al. 1989. New monoclonal antibodies recognizing epidermal differentiation-associated keratins in formalin-fixed, paraffin-embedded tissue. Keratin 10 expression in carcinoma of the vulva. *J. Pathol.* 159: 7-12.
- Broekaert, D., et al. 1990. An investigation of cytokeratin expression in skin epithelial cysts and some uncommon types of cystic tumours using chain-specific antibodies. *Arch. Dermatol. Res.* 282: 383-391.
- 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.
- Silen, A., et al. 1994. Evaluation of a new tumor marker for Cytokeratin 8 and 18 fragments in healthy individuals and prostate cancer patients. *Prostate* 24: 326-332.
- 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.
- Marceau, N. and Loranger, A. 1995. Cytokeratin expression, fibrillar organization and subtle function in liver cells. *Biochem. Cell Biol.* 73: 619-625.
- Silen, A., et al. 1995. A novel IRMA and ELISA for quantifying Cytokeratin 8 and 18 fragments in the sera of healthy individuals and cancer patients. *Scand. J. Clin. Lab. Invest.* 55: 153-161.

## CHROMOSOMAL LOCATION

Genetic locus: KRT10 (human) mapping to 17q21.2; Krt10 (mouse) mapping to 11 D.

## SOURCE

Cytokeratin 10 (SPM262) is a mouse monoclonal antibody raised against cytoskeletal preparation extracted from ectocervical epithelium of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>2a</sub> kappa light chain 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

Cytokeratin 10 (SPM262) is recommended for detection of Cytokeratin 10 of mouse, rat, human and feline 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 immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for Cytokeratin 10 siRNA (h): sc-35149, Cytokeratin 10 siRNA (m): sc-35150, Cytokeratin 10 shRNA Plasmid (h): sc-35149-SH, Cytokeratin 10 shRNA Plasmid (m): sc-35150-SH, Cytokeratin 10 shRNA (h) Lentiviral Particles: sc-35149-V and Cytokeratin 10 shRNA (m) Lentiviral Particles: sc-35150-V.

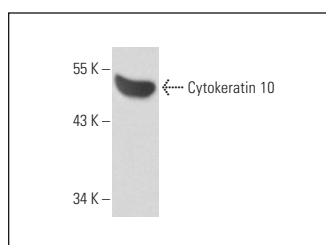
Molecular Weight of Cytokeratin 10: 57 kDa.

Positive Controls: A-431 whole cell lysate: sc-2201, HeLa whole cell lysate: sc-2200 or MCF7 whole cell lysate: sc-2206.

## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

## DATA



Cytokeratin 10 (SPM262): sc-56518. Western blot analysis of Cytokeratin 10 expression in A-431 whole cell lysate.

## SELECT PRODUCT CITATIONS

- Serini, S., et al. 2010. Docosahexaenoic acid reverts resistance to UV-induced apoptosis in human keratinocytes: involvement of COX-2 and HuR. *J. Nutr. Biochem.* 22: 874-885.
- Kim, S.R., et al. 2011. Expression of keratin 10 in rat organ surface primo-vascular tissues. *J. Acupunct Meridian Stud.* 4: 102-106.

## RESEARCH USE

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