

Cytokeratin 5 (A-16): sc-17090

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. Cytokeratin 5 is expressed in normal basal cells. Mutations of the cytokeratin 5 gene (KRT5) have been shown to result in the autosomal dominant disorder epidermolysis bullosa (EB).

REFERENCES

1. 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.
2. 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.
3. 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.
4. 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.
5. Stephens, K., et al. 1995. Epidermolysis bullosa simplex: a keratin 5 mutation is a fully dominant allele in epidermal cytoskeleton function. *Amer. J. Hum. Genet.* 56: 577-585.
6. Marceau, N., et al. 1995. Cytokeratin expression, fibrillar organization and subtle function in liver cells. *Biochem. Cell Biol.* 73: 619-625.
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.

SOURCE

Cytokeratin 5 (A-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of Cytokeratin 5 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.

Blocking peptide available for competition studies, sc-17090 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

Cytokeratin 5 (A-16) is recommended for detection of Cytokeratin 5 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 5 (A-16) is also recommended for detection of Cytokeratin 5 in additional species, including equine, bovine and porcine.

Suitable for use as control antibody for Cytokeratin 5 siRNA (h): sc-35153.

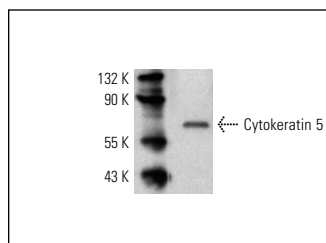
Molecular Weight of Cytokeratin 5: 58 kDa.

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

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



Cytokeratin 5 (A-16): sc-17090. Western blot analysis of Cytokeratin 5 expression in DU 145 whole cell lysate.

SELECT PRODUCT CITATIONS

1. White, S.R., et al. 2008. Interleukin-1β mediates human airway epithelial cell migration via NFκB. *Am. J. Physiol. Lung Cell Mol. Physiol.* 295: L1018-L1027.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.