

# Cytokeratin 5 (3E2F1): sc-81702

## 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. Marceau, N., et al. 1995. Cytokeratin expression, fibrillar organization and subtle function in liver cells. *Biochem. Cell Biol.* 73: 619-625.

## CHROMOSOMAL LOCATION

Genetic locus: KRT5 (human) mapping to 12q13.13; Krt5 (mouse) mapping to 15 F2.

## SOURCE

Cytokeratin 5 (3E2F1) is a mouse monoclonal antibody raised against a recombinant protein corresponding to amino acids 316-491 of Cytokeratin 5 of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

Cytokeratin 5 (3E2F1) 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 immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for Cytokeratin 5 siRNA (h): sc-35153, Cytokeratin 5 siRNA (m): sc-60041, Cytokeratin 5 shRNA Plasmid (h): sc-35153-SH, Cytokeratin 5 shRNA Plasmid (m): sc-60041-SH, Cytokeratin 5 shRNA (h) Lentiviral Particles: sc-35153-V and Cytokeratin 5 shRNA (m) Lentiviral Particles: sc-60041-V.

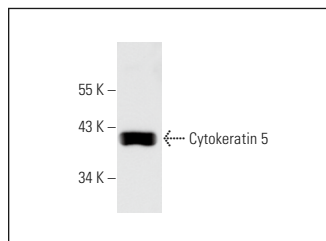
Molecular Weight of Cytokeratin 5: 58 kDa.

Positive Controls: DU 145 cell lysate: sc-2268, HeLa whole cell lysate: sc-2200 or MCF7 whole cell lysate: sc-2206.

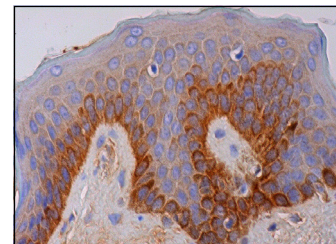
## STORAGE

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

## DATA



Cytokeratin 5 (3E2F1): sc-81702. Western blot analysis of human recombinant Cytokeratin 5.



Cytokeratin 5 (3E2F1): sc-81702. Immunoperoxidase staining of formalin fixed, paraffin-embedded human skin tissue showing cytoplasmic staining of melanocytes and keratinocytes.

## SELECT PRODUCT CITATIONS

1. Fang, S., et al. 2008. Comparative proteomics analysis of cytokeratin and involucrin expression in lesions from patients with systemic lupus erythematosus. *Acta Biochim. Biophys. Sin.* 40: 989-995.
2. Heupel, W.M., et al. 2009. Pemphigus vulgaris IgG cause loss of desmoglein-mediated adhesion and keratinocyte dissociation independent of epidermal growth factor receptor. *Am. J. Pathol.* 174: 475-485.
3. Zhao, J., et al. 2014. Evaluation of ultrasound-processed rapid cell blocks in the cytopathologic diagnosis of cavity fluids. *Acta Cytol.* 58: 182-191.
4. Kang, S.Y.C., et al. 2015. Characterization of epithelial progenitors in normal human palatine tonsils and their HPV16 E6/E7-induced perturbation. *Stem Cell Reports* 5: 1210-1225.

## RESEARCH USE

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

## PROTOCOLS

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



See **Cytokeratin 5 (RCK103): sc-32721** for Cytokeratin 5 antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.