

Cytokeratin 10 (DE-K10): sc-52318

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.

CHROMOSOMAL LOCATION

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

SOURCE

Cytokeratin 10 (DE-K10) is a mouse monoclonal antibody raised against cytoskeletal epidermis preparation of human origin.

PRODUCT

Each vial contains 500 µl culture supernatant containing IgG₁ with < 0.1% sodium azide.

APPLICATIONS

Cytokeratin 10 (DE-K10) is recommended for detection of Cytokeratin 10 of mouse, rat and human origin by Western Blotting (starting dilution to be determined by researcher, dilution range 1:10-1:200), immunoprecipitation [10-20 µl per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution to be determined by researcher, dilution range 1:10-1:200) and immunohistochemistry (including paraffin-embedded sections) (starting dilution to be determined by researcher, dilution range 1:10-1:200).

Cytokeratin 10 (DE-K10) is also recommended for detection of Cytokeratin 10 in additional species, including feline and canine.

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 human skin extract: sc-363777.

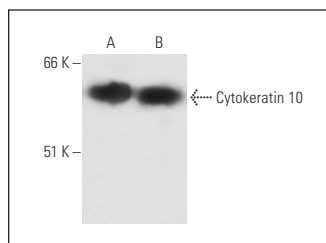
STORAGE

For immediate and continuous use, store at 4° C for up to one month. For sporadic use, freeze in working aliquots in order to avoid repeated freeze/thaw cycles. If turbidity is evident upon prolonged storage, clarify solution by centrifugation.

RESEARCH USE

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

DATA



Cytokeratin 10 (DE-K10): sc-52318. Western blot analysis of Cytokeratin 10 expression in A-431 whole cell lysate (A) and human skin tissue extract (B).

SELECT PRODUCT CITATIONS

- Pontiggia, L., et al. 2009. Markers to evaluate the quality and self-renewing potential of engineered human skin substitutes *in vitro* and after transplantation. *J. Invest. Dermatol.* 129: 480-490.
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- Sakabe, J., et al. 2013. Kallikrein-related peptidase 5 functions in proteolytic processing of profilaggrin in cultured human keratinocytes. *J. Biol. Chem.* 288: 17179-17189.
- Spriggs, C.C. and Laimins, L.A. 2017. FANCD2 binds human papillomavirus genomes and associates with a distinct set of DNA repair proteins to regulate viral replication. *MBio* 8: e02340-16.
- Bienkowska-Haba, M., et al. 2018. A new cell culture model to genetically dissect the complete human papillomavirus life cycle. *PLoS Pathog.* 14: e1006846.
- Liu, N., et al. 2019. Stem cell competition orchestrates skin homeostasis and ageing. *Nature* 568: 344-350.
- Nanba, D., et al. 2021. EGFR-mediated epidermal stem cell motility drives skin regeneration through COL17A1 proteolysis. *J. Cell Biol.* 220: e202012073.
- Sanchez, M.M., et al. 2022. Development of a vascularized human skin equivalent with hypodermis for photoaging studies. *Biomolecules* 12: 1828.

PROTOCOLS

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



See **Cytokeratin 10 (LH2): sc-53252** for Cytokeratin 10 antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.