

# Cytokeratin 10 (V1K-10): sc-51581

## 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

1. 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.
2. 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.
3. 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.
4. 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.

## CHROMOSOMAL LOCATION

Genetic locus: KRT10 (human) mapping to 17q21.2.

## SOURCE

Cytokeratin 10 (V1K-10) is a mouse monoclonal antibody raised against cytoskeleton epidermis preparation of human origin.

## PRODUCT

Each vial contains 100 µg IgG<sub>1</sub> in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

Cytokeratin 10 (V1K-10) is recommended for detection of Cytokeratin 10 of 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 10 siRNA (h): sc-35149, Cytokeratin 10 shRNA Plasmid (h): sc-35149-SH and Cytokeratin 10 shRNA (h) Lentiviral Particles: sc-35149-V.

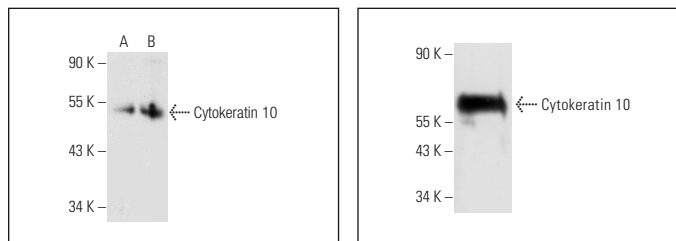
Molecular Weight of Cytokeratin 10: 57 kDa.

Positive Controls: Cytokeratin 10 (h): 293T Lysate: sc-113858, A-431 whole cell lysate: sc-2201 or human skin extract: sc-363777.

## STORAGE

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

## DATA



Cytokeratin 10 (V1K-10): sc-51581. Western blot analysis of Cytokeratin 10 expression in non-transfected: sc-117752 (A) and human Cytokeratin 10 transfected: sc-113858 (B) 293T whole cell lysates.

Cytokeratin 10 (V1K-10): sc-51581. Western blot analysis of Cytokeratin 10 expression in human skin tissue extract.

## SELECT PRODUCT CITATIONS

1. Xiao, J., et al. 2010. Profiling pancreatic cancer-secreted proteome using 15N amino acids and serum-free media. *Pancreas* 39: e17-23.
2. Di Costanzo, A., et al. 2011. A dominant mutation etiologic for human tricho-dento-osseous syndrome impairs the ability of DLX3 to downregulate  $\Delta Np63\alpha$ . *J. Cell. Physiol.* 226: 2189-2197.
3. Shi, G., et al. 2014. Clinicopathological features and expression of four keratins (K10, K14, K17 and K19) in six cases of eruptive vellus hair cysts. *Clin. Exp. Dermatol.* 39: 496-499.
4. Cubillos, S. and Norgauer, J. 2016. Low vitamin D-modulated calcium-regulating proteins in psoriasis vulgaris plaques: S100A7 overexpression depends on joint involvement. *Int. J. Mol. Med.* 38: 1083-1092.
5. Yang, P.P., et al. 2017. Immunohistochemical evaluation of epidermal proliferation, differentiation and melanocytic density in symmetrical acrokeratoderma. *Clin. Exp. Dermatol.* 42: 509-515.
6. Chamcheu, J.C., et al. 2019. Fisetin, a 3,7,3',4'-tetrahydroxyflavone inhibits the PI3K/Akt/mTOR and MAPK pathways and ameliorates psoriasis pathology in 2D and 3D organotypic human inflammatory skin models. *Cells* 8: 1089.
7. Yang, B.B., et al. 2020. Suppressor of fused inhibits skin wound healing. *Adv. Wound Care* 9: 233-244.

## RESEARCH USE

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

## CONJUGATES

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