

Cytokeratin 10/13 (DE-K13): sc-6258

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. For example, cytokeratins 10 and 13 are expressed highly in a subset of squamous cell carcinomas while Cytokeratin 18 is expressed in a majority of adenocarcinomas and basal cell carcinomas.

CHROMOSOMAL LOCATION

Genetic locus: KRT10/KRT13 (human) mapping to 17q21.2.

SOURCE

Cytokeratin 10/13 (DE-K13) is a mouse monoclonal antibody raised against cytoskeletal preparation extracted from human ectocervical epithelium.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

Cytokeratin 10/13 (DE-K13) is recommended for detection of Cytokeratin 10 and Cytokeratin 13 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); specific for Cytokeratin 13 by IHC(P).

Molecular Weight of Cytokeratin 10/13: 50 kDa.

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

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, UltraCruz® Blocking Reagent: sc-516214 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. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

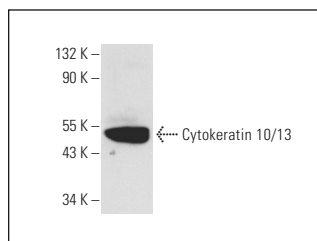
STORAGE

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

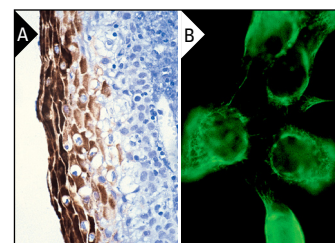
RESEARCH USE

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

DATA



Cytokeratin 10/13 (DE-K13): sc-6258. Western blot analysis of Cytokeratin 10/13 expression in A-431 whole cell lysate.



Cytokeratin 10/13 (DE-K13): sc-6258. Immunoperoxidase staining of formalin-fixed, paraffin-embedded normal human tonsil showing intense cytoskeletal staining of epithelial cells (A). Immunofluorescence staining of methanol-fixed A-431 cells showing staining of cytoskeletal elements (B).

SELECT PRODUCT CITATIONS

1. Soni, S., et al. 2003. Stromelysin-3 expression is an early event in human oral tumorigenesis. *Int. J. Cancer* 107: 309-316.
2. Su, P.F., et al. 2006. Distinct gene expression profiles in immortalized human urothelial cells exposed to inorganic arsenite and its methylated trivalent metabolites. *Environ. Health Perspect.* 114: 394-403.
3. Pi, J., et al. 2008. Arsenic-induced malignant transformation of human keratinocytes: involvement of Nrf2. *Free Radic. Biol. Med.* 45: 651-658.
4. Howie, H.L., et al. 2011. β-HPV 5 and 8 E6 promote p300 degradation by blocking Akt/p300 association. *PLoS Pathog.* 7: e1002211.
5. Armstrong, S.M., et al. 2012. Co-regulation of transcellular and paracellular leak across microvascular endothelium by Dynamin and Rac. *Am. J. Pathol.* 180: 1308-1323.
6. Mikhailova, A., et al. 2015. Human pluripotent stem cell-derived limbal epithelial stem cells on bioengineered matrices for corneal reconstruction. *Exp. Eye Res.* 146: 26-34.
7. Kato, K., et al. 2017. Opposite effects of tumor protein D (TPD) 52 and TPD54 on oral squamous cell carcinoma cells. *Int. J. Oncol.* 50: 1634-1646.
8. Wechsler, E.I., et al. 2018. E5 can be expressed in anal cancer and leads to epidermal growth factor receptor-induced invasion in a human papillomavirus 16-transformed anal epithelial cell line. *J. Gen. Virol.* 99: 631-644.
9. Wu, C.L., et al. 2022. A new scoring system facilitating diagnosis of oral squamous malignancy on biopsy specimens. *BMC Oral Health* 22: 165.

CONJUGATES

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.