

Cytokeratin 13 (AE8): sc-57003

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 13 belongs to the intermediate filament family and is a heterotetramer of two type I acidic and two type II basic keratins. It is generally associated with Cytokeratin 4. Defects in the KRT13 gene are a cause of white sponge nevus of cannon (WSN), a rare autosomal dominant disorder which predominantly affects noncornified stratified squamous epithelia and is characterized by the presence of soft, white and spongy plaques in the oral mucosa.

CHROMOSOMAL LOCATION

Genetic locus: KRT13 (human) mapping to 17q21.2; Krt13 (mouse) mapping to 11 D.

SOURCE

Cytokeratin 13 (AE8) is a mouse monoclonal antibody raised against esophageal keratins of rabbit origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

Cytokeratin 13 (AE8) is recommended for detection of Cytokeratin 13 of mouse, rat, human and rabbit 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 13 siRNA (h): sc-43308, Cytokeratin 13 siRNA (m): sc-44558, Cytokeratin 13 shRNA Plasmid (h): sc-43308-SH, Cytokeratin 13 shRNA Plasmid (m): sc-44558-SH, Cytokeratin 13 shRNA (h) Lentiviral Particles: sc-43308-V and Cytokeratin 13 shRNA (m) Lentiviral Particles: sc-44558-V.

Molecular Weight of Cytokeratin 13: 52 kDa.

Positive Controls: A-431 whole cell lysate: sc-2201 or rat tongue tissue extract.

RESEARCH USE

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

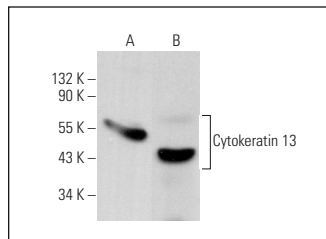
PROTOCOLS

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

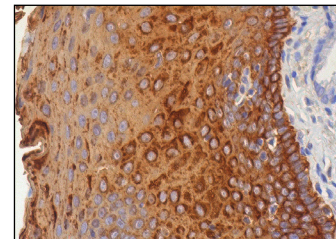
STORAGE

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

DATA



Cytokeratin 13 (AE8): sc-57003. Western blot analysis of Cytokeratin 13 expression in A-431 whole cell lysate (A) and rat tongue tissue extract (B).



Cytokeratin 13 (AE8): sc-57003. Immunoperoxidase staining of formalin fixed, paraffin-embedded human esophagus tissue showing cytoplasmic staining of squamous epithelial cells.

SELECT PRODUCT CITATIONS

- Pickard, A., et al. 2012. Regulation of epithelial differentiation and proliferation by the stroma: a role for the retinoblastoma protein. *J. Invest. Dermatol.* 132: 2691-2699.
- Li, H., et al. 2012. Effects of multiple agents on epithelial differentiation of rabbit adipose-derived stem cells in 3D culture. *Tissue Eng. Part A* 18: 1760-1770.
- Nittayananta, W., et al. 2012. Changes in oral cytokeratin expression in HIV-infected subjects with long-term use of HAART. *Oral Dis.* 18: 793-801.
- Li, H., et al. 2014. Epithelial-differentiated adipose-derived stem cells seeded bladder acellular matrix grafts for urethral reconstruction: an animal model. *Tissue Eng. Part A* 20: 774-784.
- Garreis, F., et al. 2016. Upregulation of transient receptor potential vanilloid type-1 channel activity and Ca²⁺ influx dysfunction in human pterygial cells. *Invest. Ophthalmol. Vis. Sci.* 57: 2564-2577.
- Xiong, R., et al. 2018. Evaluating mode of action of acrolein toxicity in an *in vitro* human airway tissue model. *Toxicol. Sci.* 166: 451-464.
- Xiong, R., et al. 2019. Disease-related responses induced by cadmium in an *in vitro* human airway tissue model. *Toxicol. Lett.* 303: 16-27.
- Inamochi, A., et al. 2019. Simple oral mucosal epithelial transplantation in a rabbit model. *Sci. Rep.* 9: 18088.
- Mitani, A., et al. 2019. Characterization of doxycycline-dependent inducible Simian Virus 40 large T antigen immortalized human conjunctival epithelial cell line. *PLoS ONE* 14: e0222454.



See **pan-Cytokeratin (C11): sc-8018** for pan-Cytokeratin antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor[®] 488, 546, 594, 647, 680 and 790.