SANTA CRUZ BIOTECHNOLOGY, INC.

Cytokeratin 13 (Ks13.1): sc-101460

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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.

REFERENCES

1. Richard, G., et al. 1995. Keratin 13 point mutation underlies the hereditary mucosal epithelial disorder white sponge nevus. Nat. Genet. 11: 453-455.
2. Rugg, E., et al. 1999. Identification of two novel mutations in Keratin 13 as the cause of white sponge naevus. Oral Dis. 5: 321-324.
3. Terrinoni, A., et al. 2001. A novel mutation in the Keratin 13 gene causing oral white sponge nevus. J. Dent. Res. 80: 919-923.
4. Chao, S.C., et al. 2003. A novel mutation in the Keratin 4 gene causing white sponge naevus. Br. J. Dermatol. 148: 1125-1128.

CHROMOSOMAL LOCATION

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

SOURCE

Cytokeratin 13 (Ks13.1) is a mouse monoclonal antibody raised against esophagus of human origin.

PRODUCT

Each vial contains 50 µg IgG_1 in 0.5 ml of PBS with <0.1% sodium azide and 1.0% stabilizer protein.

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.

PROTOCOLS

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

APPLICATIONS

Cytokeratin 13 (Ks13.1) is recommended for detection of Cytokeratin 13 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 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).

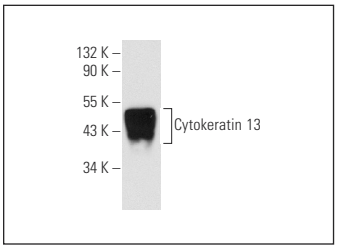
Cytokeratin 13 (Ks13.1) is also recommended for detection of Cytokeratin 13 in additional species, including bovine.

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.

DATA



Cytokeratin 13 (Ks13.1): sc-101460. Western blot analysis of Cytokeratin 13 expression in A-431 whole cell lysate.

SELECT PRODUCT CITATIONS

1. Bertolin, M., et al. 2019. Optimized protocol for regeneration of the conjunctival epithelium using the cell suspension technique. Cornea 38: 469-479.
2. Kara, A., et al. 2019. Evaluation of the effect of diclofenac sodium and 5-fluourasil in a 3D cholesteatoma cell culture model. Otol. Neurotol. 40: 1018-1025.
3. Singh, S., et al. 2022. SARS-CoV-2 and its β variant of concern infect human conjunctival epithelial cells and induce differential antiviral innate immune response. Ocul. Surf. 23: 184-194.
4. Chen, T.C., et al. 2022. Repeated cell sorting ensures the homogeneity of ocular cell populations expressing a transgenic protein. PLoS ONE 17: e0265183.

CONJUGATES

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.