

# Cytokeratin 17 (Ks17.E3): sc-101461

## BACKGROUND

Cytokeratin 17 is a member of the cytokeratin subfamily of intermediate filament proteins (IFPs). It is unique in that it is normally expressed in the basal cells of complex epithelia but not in stratified or simple epithelia. Cytokeratin 17 contains 432 amino acids and is expressed in the nail bed, hair follicle, sebaceous glands and other epidermal appendages. Cytokeratin 17 functions to regulate cell growth and size through its interactions with the adaptor protein 14-3-3- $\sigma$  to mediate protein synthesis. Mutations in the gene encoding for Cytokeratin 17 lead to depressed protein translation and smaller sized skin keratinocytes, corresponding to decreased Akt/mTOR signaling activity. Cytokeratin 17 may be a useful marker for cervical stem cell identification, squamous cell carcinoma of the larynx, respiratory syncytial virus and transitional cell carcinomas of the human urinary tract.

## REFERENCES

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- Domachowske, J.B., et al. 2000. Cytokeratin 17 is expressed via NF $\kappa$ B activation and is associated with the formation of cytopathic syncytia. *J. Infect. Dis.* 182: 1022-1028.
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## CHROMOSOMAL LOCATION

Genetic locus: KRT17 (human) mapping to 17q21.2; Krt17 (mouse) mapping to 11 D.

## SOURCE

Cytokeratin 17 (Ks17.E3) is a mouse monoclonal antibody raised against Cytokeratin 17 of human origin.

## PRODUCT

Each vial contains IgG<sub>2b</sub> in 500  $\mu$ l of PBS with < 0.1% sodium azide and 1.0% stabilizer protein.

## APPLICATIONS

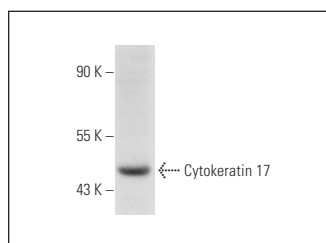
Cytokeratin 17 (Ks17.E3) is recommended for detection of Cytokeratin 17 of mouse, rat and human origin by Western Blotting (starting dilution to be determined by researcher, dilution range 1:10-1:200), immunoprecipitation [10-20  $\mu$ l per 100-500  $\mu$ g of total protein (1 ml of cell lysate)], immunofluorescence (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).

Suitable for use as control antibody for Cytokeratin 17 siRNA (h): sc-43311, Cytokeratin 17 siRNA (m): sc-43312, Cytokeratin 17 shRNA Plasmid (h): sc-43311-SH, Cytokeratin 17 shRNA Plasmid (m): sc-43312-SH, Cytokeratin 17 shRNA (h) Lentiviral Particles: sc-43311-V and Cytokeratin 17 shRNA (m) Lentiviral Particles: sc-43312-V.

Molecular Weight of Cytokeratin 17: 46 kDa.

Positive Controls: A-431 whole cell lysate: sc-2201, Hep G2 cell lysate: sc-2227 or T24 cell lysate: sc-2292.

## DATA



Cytokeratin 17 (Ks17.E3): sc-101461. Western blot analysis of Cytokeratin 17 expression in T24 whole cell lysate.

## SELECT PRODUCT CITATIONS

- Elango, T., et al. 2015. Methotrexate normalized keratinocyte activation cycle by overturning abnormal keratins as well as deregulated inflammatory mediators in psoriatic patients. *Clin. Chim. Acta* 451: 329-337.
- Prakoso, Y.A., et al. 2020. Celery (*Apium graveolens*) as a potential anti-bacterial agent and its effect on Cytokeratin-17 and other healing promoters in skin wounds infected with methicillin-resistant *Staphylococcus aureus*. *Vet. World* 13: 865-871.

## 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.