SANTA CRUZ BIOTECHNOLOGY, INC.

Cytokeratin 18 (h3): 293 Lysate: sc-112918

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 highly expressed in a subset of squamous cell carcinomas while Cytokeratin 18 is expressed in a majority of adenocarcinomas and basal cell carcinomas. Cytokeratin 18 contains two major phosphorylation sites, Ser 33 and Ser 52. Phosphorylation of Ser 18 is essential for the association of Cytokeratin 18 with 14-3-3 proteins and is involved in keratin organization and distribution.

REFERENCES

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8. Mukhopadhyay, T. and Roth, J.A. 1996. Functional inactivation of p53 by antisense RNA induces invasive ability of lung carcinoma cells and down-regulates cytokeratin synthesis. Anticancer Res. 16: 1683-1689.
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STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

RESEARCH USE

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

CHROMOSOMAL LOCATION

Genetic locus: KRT18 (human) mapping to 12q13.13.

PRODUCT

Cytokeratin 18 (h3): 293 Lysate represents a lysate of human Cytokeratin 18 transfected 293 cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

Cytokeratin 18 (h3): 293 Lysate is suitable as a Western Blotting positive control for human reactive Cytokeratin 18 antibodies. Recommended use: 10-20 µl per lane.

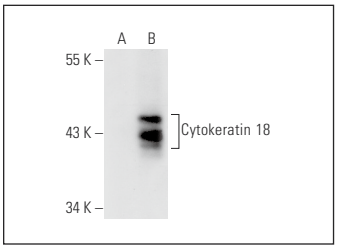
Control 293 Lysate: sc-110760 is available as a Western Blotting negative control lysate derived from non-tranfected 293 cells.

Either Cytokeratin 5/8 (RCK102): sc-32328 is recommended as a positive control antibody for Western Blot analysis of enhanced human Cytokeratin 18 expression in Cytokeratin 18 transfected 293 cells (starting dilution 1:100, dilution range 1:100-1:1,000).

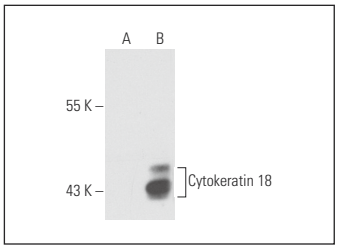
RECOMMENDED SUPPORT REAGENTS

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. .

DATA



Cytokeratin 5/8 (RCK102): sc-32328. Western blot analysis of Cytokeratin 18 expression in non-transfected: sc-117752 (**A**) and human Cytokeratin 18 transfected: sc-112918 (**B**) 293T whole cell lysates.



Cytokeratin 18 (DC-10): sc-6259. Western blot analysis of Cytokeratin 18 expression in non-transfected: sc-110760 (**A**) and human Cytokeratin 18 transfected: sc-112918 (**B**) 293 whole cell lysates.

PROTOCOLS

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