



Cytokeratin 6A (m): 293T Lysate: sc-119620

BACKGROUND

Cytokeratins comprise a diverse group of intermediate filament proteins (IFPs) that are expressed as pairs in both keratinized and non-keratinized epithelial tissue, where they constitute up to 85% of mature keratinocytes in the vertebrate epidermis. Cytokeratins play a critical role in differentiation and tissue specialization and function to maintain the overall structural integrity of epi-thelial cells. The α -helical coiled-coil dimers associate laterally end-to-end to form 10 nm diameter filaments. Cytokeratins, which are useful markers of tissue differentiation, also aid in the characterization of malignant tumors. IL-1 and TNF α induce transcription of Cytokeratin 6 in epidermal keratinocytes via the C/EBP β transcription factor. In humans, multiple isoforms of Cytokeratin 6 (6A-6F), encoded by several highly homologous genes, have distinct tissue expression patterns, and Cytokeratin 6A is the dominant form in epithelial tissue. The gene encoding human Cytokeratin 6A maps to chromosome 12q13.13, and mutations in this gene are linked to several inheritable hair and skin pathologies.

REFERENCES

1. van der Velden, L.A., Schaafsma, H.E., Manni, J.J., Ramaekers, F.C. and Kuijpers, W. 1993. Cytokeratin expression in normal and (pre)malignant head and neck epithelia: an overview. *Head Neck* 15: 133-146.
2. Marceau, N. and Loranger, A. 1995. Cytokeratin expression, fibrillar organization and subtle function in liver cells. *Biochem. Cell Biol.* 73: 619-625.
3. Fuchs, E. 1995. Keratins and the skin. *Annu. Rev. Cell Dev. Biol.* 11: 123-153.
4. Quillien, V., Ramee, M.P., Bansard, J.Y., Meritte, H., Briens, E., Logeais, Y., Langanay, T., Corbineau, H. and Dazord, L. 1995. Serum and tissue distribution of a fragment of Cytokeratin 19 (cyfra 21-1) in lung cancer patients. *Anticancer Res.* 15: 2857-2863.
5. 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.
6. Machesney, M., Tidman, N., Waseem, A., Kirby, L. and Leigh, I. 1998. Activated keratinocytes in the epidermis of hypertrophic scars. *Am. J. Pathol.* 152: 1133-1141.
7. Porter, R.M., Lunny, D.P., Ogden, P.H., Morley, S.M., McLean, W.H., Evans, A., Harrison, D.L., Rugg, E.L. and Lane, E.B. 2000. K15 expression implies lateral differentiation within stratified epithelial basal cells. *Lab. Invest.* 80: 1701-1710.
8. Komine, M., Rao, L.S., Kaneko, T., Tomic-Canic, M., Tamaki, K., Freedberg, I.M. and Blumenberg, M. 2000. Transcriptional complex containing NF κ B and C/EBP β . *J. Biol. Chem.* 275: 32077-32088.
9. Komine, M., Rao, L.S., Freedberg, I.M., Simon, M., Milisavljevic, V. and Blumenberg, M. 2001. Interleukin-1 induces transcription of keratin K6 in human epidermal keratinocytes. *J. Invest. Dermatol.* 116: 330-338.

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.

CHROMOSOMAL LOCATION

Genetic locus: Krt6a (mouse) mapping to 15 F2.

PRODUCT

Cytokeratin 6A (m): 293T Lysate represents a lysate of mouse Cytokeratin 6A transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

APPLICATIONS

Cytokeratin 6A (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive Cytokeratin 6A antibodies. Recommended use: 10-20 μ l per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

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.