SANTA CRUZ BIOTECHNOLOGY, INC.

BLCAP (h): 293T Lysate: sc-116163

BACKGROUND

BLCAP (bladder cancer-associated protein) is an 87 amino acid highly conserved multi-pass transmembrane protein that is highly expressed in normal esophagus, thyroid and brain tissue. Overexpression of BLCAP inhibits cell growth and initiates apoptosis via upregulation of p21 and downregulation of Bcl-x_L and Bcl-2. Since p53 and NFκB activity remain unchanged, the regulation of the cell cycle and apoptosis by BLCAP represents a novel pathway independent of p53 and NFκB. Transcription of the gene encoding BLCAP is almost completely repressed in high invasive transitional cell carcinomas. Additionally, BLCAP is expressed in all non-cancerous cervical tissues, but expression is lost in primary cervical cancer tissue. This evidence suggests that BLCAP may be a suitable marker for carcinogenic invasiveness and progression.

REFERENCES

1. Gromova, I., Gromov, P. and Celis, J.E. 1999. Identification of true differentially expressed mRNAs in a pair of human bladder transitional cell carcinomas using an improved differential display procedure. Electrophoresis 20: 241-248.
2. Gromova, I., Gromov, P. and Celis, J.E. 2002. Bc10: A novel human bladder cancer-associated protein with a conserved genomic structure downregulated in invasive cancer. Int. J. Cancer 98: 539-546.
3. Su, H.C., Zhao, Y.H., Fan, D.G., Fan, Q.Y., Zhang, P., Wen, Y.H. and Liu, Y.Y. 2003. Relationship between expression of BLCAP protein and malignancy of osteosarcoma. Xi Bao Yu Fen Zi Mian Yi Xue Za Zhi 19: 465-466.
4. Clutterbuck, D.R., Leroy, A., O'Connell, M.A. and Semple, C.A. 2005. A bioinformatic screen for novel A-I RNA editing sites reveals recoding editing in Bc10. Bioinformatics 21: 2590-2595.
5. Evans, H.K., Weidman, J.R., Cowley, D.O. and Jirtle, R.L. 2005. Comparative phylogenetic analysis of BLCAP/Nnat reveals eutherian-specific imprinted gene. Mol. Biol. Evol. 22: 1740-1748.
6. Levanon, E.Y., Hallegger, M., Kinar, Y., Shemesh, R., Djinovic-Carugo, K., Rechavi, G., Jantsch, M.F. and Eisenberg, E. 2005. Evolutionarily conserved human targets of adenosine to inosine RNA editing. Nucleic Acids Res. 33: 1162-1168.
7. Zuo, Z., Zhao, M., Liu, J., Gao, G. and Wu, X. 2006. Functional analysis of bladder cancer-related protein gene: a putative cervical cancer tumor suppressor gene in cervical carcinoma. Tumour Biol. 27: 221-226.

CHROMOSOMAL LOCATION

Genetic locus: BLCAP (human) mapping to 20q11.23.

PRODUCT

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

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.

APPLICATIONS

BLCAP (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive BLCAP antibodies. Recommended use: 10-20 µl 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.