



## BLCAP (F-12): sc-85302

### 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-xL 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

- 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.
- 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.
- 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.
- 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.
- 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.
- 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.
- 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.
- Yao, J., Duan, L., Fan, M., Yuan, J. and Wu, X. 2007. Overexpression of BLCAP induces S phase arrest and apoptosis independent of p53 and NFκB in human tongue carcinoma: BLCAP overexpression induces S phase arrest and apoptosis. *Mol. Cell. Biochem.* 297: 81-92.

### 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.

### CHROMOSOMAL LOCATION

Genetic locus: BLCAP (human) mapping to 20q11.23; Bclap (mouse) mapping to 2 H1.

### SOURCE

BLCAP (F-12) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping near the C-terminus of BLCAP of human origin.

### PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, ready P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

### APPLICATIONS

BLCAP (F-12) is recommended for detection of BLCAP of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for BLCAP siRNA (h): sc-72653, BLCAP siRNA (m): sc-141709, BLCAP shRNA Plasmid (h): sc-72653-SH, BLCAP shRNA Plasmid (m): sc-141709-SH, BLCAP shRNA (h) Lentiviral Particles: sc-72653-V and BLCAP shRNA (m) Lentiviral Particles: sc-141709-V.

Molecular Weight of BLCAP: 10 kDa.

### RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

### PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.