



## Mac-2BP (M-300): sc-98816

### BACKGROUND

Mac-2BP (Mac-2-binding protein), also known as LGALS3BP (lectin, galactoside-binding, soluble, 3 binding protein), 90K or BTBD17B, is a 585 amino acid protein that is secreted into the extracellular matrix and contains one SRCR domain, one BTB (POZ) domain and one BACK domain. Expressed ubiquitously, Mac-2BP exists as both a homodimer and a homomultimer and functions to promote Integrin-mediated cell adhesion, possibly playing a role in the stimulation of host defenses against tumor cells and viruses. Mac-2BP levels are elevated in HIV-infected hosts, further implicating Mac-2BP in immune system function. The gene encoding Mac-2BP maps to human chromosome 17, which comprises over 2.5% of the human genome and encodes over 1,200 genes.

### REFERENCES

- Iacobelli, S., Bucci, I., D'Egidio, M., Giuliani, C., Natoli, C., Tinari, N., Rubinstein, M. and Schlessinger, J. 1993. Purification and characterization of a 90 kDa protein released from human tumors and tumor cell lines. *FEBS Lett.* 319: 59-65.
- Koths, K., Taylor, E., Halenbeck, R., Casipit, C. and Wang, A. 1993. Cloning and characterization of a human Mac-2-binding protein, a new member of the superfamily defined by the macrophage scavenger receptor cysteine-rich domain. *J. Biol. Chem.* 268: 14245-14249.
- Ullrich, A., Sures, I., D'Egidio, M., Jallal, B., Powell, T.J., Herbst, R., Dreps, A., Azam, M., Rubinstein, M. and Natoli, C. 1994. The secreted tumor-associated antigen 90K is a potent immune stimulator. *J. Biol. Chem.* 269: 18401-18407.
- Calabrese, G., Sures, I., Pompetti, F., Natoli, G., Palka, G. and Iacobelli, S. 1995. The gene (LGALS3BP) encoding the serum protein 90K, associated with cancer and infection by the human immunodeficiency virus, maps at 17q25. *Cytogenet. Cell Genet.* 69: 223-225.
- Brakebusch, C., Jallal, B., Fusco, O., Iacobelli, S. and Ullrich, A. 1997. Expression of the 90K immunostimulator gene is controlled by a promoter with unique features. *J. Biol. Chem.* 272: 3674-3682.
- Online Mendelian Inheritance in Man, OMIM™. 1998. Johns Hopkins University, Baltimore, MD. MIM Number: 600626. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
- Park, Y.P., Choi, S.C., Kim, B.Y., Kim, J.T., Song, E.Y., Kang, S.H., Yoon, D.Y., Paik, S.G., Kim, K.D., Kim, J.W. and Lee, H.G. 2008. Induction of Mac-2BP by nerve growth factor is regulated by the PI3K/Akt/NFκB-dependent pathway in the HEK293 cell line. *BMB Rep.* 41: 784-789.
- Becker, R., Lenter, M.C., Vollkommer, T., Boos, A.M., Pfaff, D., Augustin, H.G. and Christian, S. 2008. Tumor stroma marker endosialin (Tem1) is a binding partner of metastasis-related protein Mac-2 BP/90K. *FASEB J.* 22: 3059-3067.
- Weng, L.P., Wu, C.C., Hsu, B.L., Chi, L.M., Liang, Y., Tseng, C.P., Hsieh, L.L. and Yu, J.S. 2008. Secretome-based identification of Mac-2 binding protein as a potential oral cancer marker involved in cell growth and motility. *J. Proteome Res.* 7: 3765-3775.

### CHROMOSOMAL LOCATION

Genetic locus: Lgals3bp (mouse) mapping to 11 E2.

### SOURCE

Mac-2BP (M-300) is a rabbit polyclonal antibody raised against amino acids 131-430 mapping within an internal region of Mac-2BP of mouse origin.

### PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

### APPLICATIONS

Mac-2BP (M-300) is recommended for detection of Mac-2BP of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], 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 Mac-2BP siRNA (m): sc-75723, Mac-2BP shRNA Plasmid (m): sc-75723-SH and Mac-2BP shRNA (m) Lentiviral Particles: sc-75723-V.

Molecular Weight of Mac-2BP: 90 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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

### 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.

### PROTOCOLS

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