



bomapin (M-14): sc-23510

BACKGROUND

Serpins, which are high molecular weight serine proteinase inhibitors, regulate a diverse set of intra- and extracellular processes such as complement activation, fibrinolysis, coagulation, cellular differentiation, tumor suppression, apoptosis and cell migration. Serpins are also involved in the regulation of proteolytic processes in a variety of biological systems. The ov-serpins are a subset of the serpin superfamily, of which the cytoplasmic protein bomapin (PI10) is a member. The bomapin gene maps to the serpin cluster at human chromosome 18q21.3 and encodes a 397 amino acid serine protease inhibitor 10 that is highly expressed in human bone marrow cells. Bomapin is expressed in monocytic THP-1 and AML-193 cell lines. However, after treatment with phorbol myristate acetate, which induces monocytic differentiation, bomapin expression is reduced in THP-1 and AML-193 cells. In conclusion, bomapin may play a role in the regulation of protease activities, specifically in early stages of cellular differentiation and during hematopoiesis.

REFERENCES

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2. Korpula-Mastalerz, R. and Dubin, A. 1996. The intracellular serpin family. *Acta Biochim. Pol.* 43: 419-429.
3. Bartuski, A.J., Kamachi, Y., Schick, C., Overhauser, J. and Silverman, G.A. 1997. Cytoplasmic antiproteinase 2 (PI8) and bomapin (PI10) map to the serpin cluster at 18q21.3. *Genomics* 43: 321-328.
4. Silverman, G.A., Bartuski, A.J., Cataltepe, S., Gornstein, E.R., Kamachi, Y., Schick, C. and Uemura, Y. 1998. SCCA1 and SCCA2 are proteinase inhibitors that map to the serpin cluster at 18q21.4. *Tumour Biol.* 19: 480-487.
5. Riewald, M., Chuang, T., Neubauer, A., Riess, H. and Schleef, R.R. 1998. Expression of bomapin, a novel human serpin, in normal/malignant hematopoiesis and in the monocytic cell lines THP-1 and AML-193. *Blood* 91: 1256-1262.

CHROMOSOMAL LOCATION

Genetic locus: Serpinb10 (mouse) mapping to 1 E2.1.

SOURCE

bomapin (M-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of bomapin 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.

Blocking peptide available for competition studies, sc-23510 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

bomapin (M-14) is recommended for detection of Bomapin 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 bomapin siRNA (m): sc-40369, bomapin shRNA Plasmid (m): sc-40369-SH and bomapin shRNA (m) Lentiviral Particles: sc-40369-V.

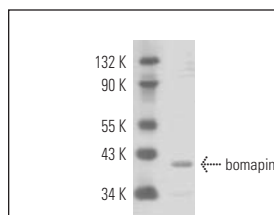
Molecular Weight of bomapin: 42 kDa.

Positive Controls: LADMAC cell lysate.

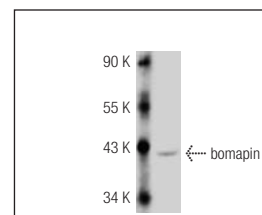
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



bomapin (M-14): sc-23510. Western blot analysis of bomapin expression in LADMAC whole cell lysate.



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RESEARCH USE

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

PROTOCOLS

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