



bomapin (C-20): sc-15438

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

1. Riewald, M., et al. 1995. Molecular cloning of bomapin (protease inhibitor 10), a novel human serpin that is expressed specifically in the bone marrow. *J. Biol. Chem.* 270: 26754-26757.
2. Korpula-Mastalerz, R., et al. 1996. The intracellular serpin family. *Acta Biochim. Pol.* 43: 419-429.
3. Bartuski, A.J., et al. 1997. Cytoplasmic antiproteinase 2 (PI8) and bomapin (PI10) map to the serpin cluster at 18q21.3. *Genomics* 43: 321-328.
4. Silverman, G.A., et al. 1998. SCCA1 and SCCA2 are proteinase inhibitors that map to the serpin cluster at 18q21.4. *Tumour Biol.* 19: 480-487.
5. Riewald, M., et al. 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 (human) mapping to 18q21.3.

SOURCE

bomapin (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of bomapin of human 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-15438 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.

RESEARCH USE

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

APPLICATIONS

bomapin (C-20) is recommended for detection of bomapin of 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 bomapin siRNA (h): sc-106812, bomapin shRNA Plasmid (h): sc-106812-SH and bomapin shRNA (h) Lentiviral Particles: sc-106812-V.

Molecular Weight of bomapin: 42 kDa.

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) 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.

PROTOCOLS

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