

# MAGP-1 (N-20): sc-50084

## BACKGROUND

Elastic fibers endow loose connective tissue with a resilience that complements the tensile strength of collagenous fibers. They are composed of the protein elastin and a network of 10-12 nm microfibrils, which contain several glycoproteins, including fibrillin-1, fibrillin-2, and the microfibril-associated glycoproteins MAGP-1 and MAGP-2. During elastogenesis, MAGP-1 and MAGP-2 bind the fibrillins to tropoelastin in the extracellular matrix of several elastic and non-elastic tissues. MAGP-1 is an O-Glycosylated protein secreted to the extracellular space and the extracellular matrix. MAGP-1 associates with Biglycan and elastin in a ternary complex. It can make intermolecular disulfide bonds with other MAGP-1 molecules or with other microfibril components and may form transglutaminase cross-links. Underexpression and overexpression of the Zebrafish homolog of MAGP-1 (Magp-1) protein levels demonstrate the critical role of MAGP-1 in vascular development.

## REFERENCES

- Gibson, M.A. and Cleary, E.G. 1987. The immunohistochemical localisation of microfibril-associated glycoprotein (MAGP) in elastic and non-elastic tissues. *Immunol. Cell Biol.* 65: 345-356.
- Gibson, M.A., Kumaratilake, J.S. and Cleary, E.G. 1989. The protein components of the 12 nm microfibrils of elastic and non-elastic tissues. *J. Biol. Chem.* 264: 4590-4598.
- Kumaratilake, J.S., Gibson, M.A., Fanning, J.C. and Cleary, E.G. 1989. The tissue distribution of microfibrils reacting with a monospecific antibody to MAGP, the major glycoprotein antigen of elastin-associated microfibrils. *Eur. J. Cell Biol.* 50: 117-127.
- Kobayashi, R., Tashima, Y., Masuda, H., Shozawa, T., Numata, Y., Miyauchi, K. and Hayakawa, T. 1989. Isolation and characterization of a new 36 kDa microfibril-associated glycoprotein from porcine aorta. *J. Biol. Chem.* 264: 17437-17444.
- Segade, F., Trask, B.C., Broekelmann, T.J., Pierce, R.A. and Mecham, R.P. 2002. Identification of a matrix-binding domain in MAGP-1 and MAGP-2 and intracellular localization of alternative splice forms. *J. Biol. Chem.* 277: 11050-11057.

## CHROMOSOMAL LOCATION

Genetic locus: MFAP2 (human) mapping to 1p36.13; Mfap2 (mouse) mapping to 4 D3.

## SOURCE

MAGP-1 (N-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of MAGP-1 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-50084 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

MAGP-1 (N-20) is recommended for detection of MAGP-1 of mouse, rat and human 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).

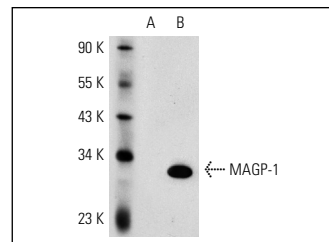
MAGP-1 (N-20) is also recommended for detection of MAGP-1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for MAGP-1 siRNA (h): sc-60980, MAGP-1 siRNA (m): sc-60981, MAGP-1 shRNA Plasmid (h): sc-60980-SH, MAGP-1 shRNA Plasmid (m): sc-60981-SH, MAGP-1 shRNA (h) Lentiviral Particles: sc-60980-V and MAGP-1 shRNA (m) Lentiviral Particles: sc-60981-V.

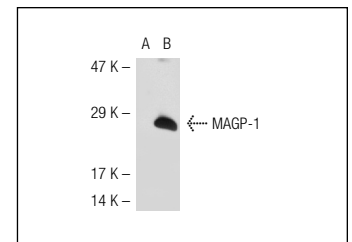
Molecular Weight of MAGP-1: 31 kDa.

Positive Controls: MAGP-1 (h): 293 Lysate: sc-111900, MAGP-1 (m): 293T Lysate: sc-125577 or mouse ovary extract: sc-2404.

## DATA



MAGP-1 (N-20): sc-50084. Western blot analysis of MAGP-1 expression in non-transfected: sc-110760 (A) and human MAGP-1 transfected: sc-111900 (B) whole cell lysates.



MAGP-1 (N-20): sc-50084. Western blot analysis of MAGP-1 expression in non-transfected: sc-117752 (A) and mouse MAGP-1 transfected: sc-125577 (B) 293T whole cell lysates.

## 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.



Try **MAGP-1 (G-7): sc-166075** or **MAGP-1 (E-8): sc-271518**, our highly recommended monoclonal alternatives to MAGP-1 (N-20).