MAGP-1 (H-105): sc-134436



The Power to Question

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 0-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

- 1. 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-nanometer microfibrils of elastic and nonelastic tissues. J. Biol. Chem. 264: 4590-4598.
- 3. 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.
- Penner, A.S., Rock, M.J., Kielty, C.M. and Shipley, J.M. 2002. Microfibrilassociated glycoprotein-2 interacts with fibrillin-1 and fibrillin-2 suggesting a role for MAGP-2 in elastic fiber assembly. J. Biol. Chem. 277: 35044-35049.

CHROMOSOMAL LOCATION

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

SOURCE

MAGP-1 (H-105) is a rabbit polyclonal antibody raised against amino acids 1-105 mapping at the N-terminus of MAGP-1 of human origin.

PRODUCT

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

APPLICATIONS

MAGP-1 (H-105) 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 μ g per 100-500 μ g 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).

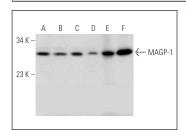
MAGP-1 (H-105) is also recommended for detection of MAGP-1 in additional species, including equine, canine, bovine and porcine.

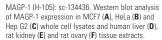
Suitable for use as control antibody for MAGP-1 siRNA (h): sc-60980, MAGP-1 siRNA (m): sc-60981, MAGP-1 shRNA Plasmid (h): sc-60980-SH, MAGP-1 shRNA Plasmid (m): sc-60981-SH, MAGP-1 shRNA (h) Lentiviral Particles: sc-60980-V and MAGP-1 shRNA (m) Lentiviral Particles: sc-60981-V.

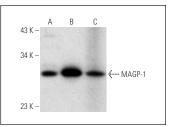
Molecular Weight of MAGP-1: 31 kDa.

Positive Controls: mouse ovary extract: sc-2404, HeLa whole cell lysate: sc-2200 or Hep G2 cell lysate: sc-2227.

DATA







MAGP-1 (H-105): sc-134436. Western blot analysis of MAGP-1 expression in MDA-MB-231 whole cell lysate (**A**) and mouse ovary (**B**) and human kidney (**C**) tissue extracts

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 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 (H-105).

Santa Cruz Biotechnology, Inc. 1.800.457.3801 831.457.3800 fax 831.457.3801 Europe +00800 4573 8000 49 6221 4503 0 www.scbt.com