

MAGP-1 (m): 293T Lysate: sc-125577

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

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.
2. 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.
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.
4. 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.
5. Segade, F., Trask, B.C., Broekelmann, T.J., Pierce, R.A. and Mecham, R.P. 2002. Identification of a matrix-binding domain in MAGP1 and MAGP2 and intracellular localization of alternative splice forms. *J. Biol. Chem.* 277: 11050-11057.
6. Penner, A.S., Rock, M.J., Kiely, C.M. and Shipley, J.M. 2002. Microfibril-associated 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.
7. Tsuruga, E., Yajima, T. and Irie, K. 2005. Microfibril-associated glycoprotein-1 and fibrillin-2 are associated with tropoelastin deposition *in vitro*. *Int. J. Biochem. Cell Biol.* 37: 120-129.
8. Chen, E., Larson, J.D. and Ekker, S.C. 2006. Functional analysis of Zebrafish microfibril-associated glycoprotein-1 (Magp-1) *in vivo* reveals roles for microfibrils in vascular development and function. *Blood* 107: 4364-4374.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

CHROMOSOMAL LOCATION

Genetic locus: Mfap2 (mouse) mapping to 4 D3.

PRODUCT

MAGP-1 (m): 293T Lysate represents a lysate of mouse MAGP-1 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

MAGP-1 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive MAGP-1 antibodies. Recommended use: 10-20 µl per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

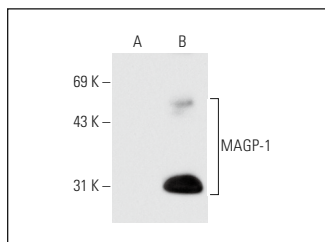
MAGP-1 (G-7): sc-166075 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse MAGP-1 expression in MAGP-1 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

RECOMMENDED SUPPORT REAGENTS

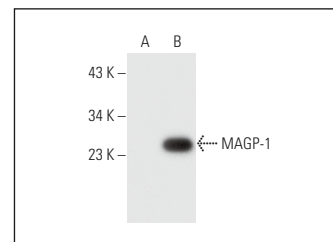
To ensure optimal results, the following support reagents are recommended:

1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



MAGP-1 (G-7): sc-166075. 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.



MAGP-1 (E-8): sc-271518. 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.

RESEARCH USE

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

PROTOCOLS

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