

megsin (H-10): sc-515694

BACKGROUND

Megsin, also designated SerpinB7 and TP55, is a 380 amino acid cytoplasmic protein that is predominantly expressed in mesangial cells, which play an important role in maintaining glomerular structure and function. As a member of the serpin family, megsin is a serine protease inhibitor which potentially inactivate MMP-2, MMP-9 and plasmin, proteins that are notably responsible for degradation of extracellular matrix. Overexpression of megsin results in an increase in number of mesangial cells and therefore a progressive mesangial matrix expansion, which is accompanied by immune complex deposition. This finding suggests that megsin significantly influences the role of mesangial cells in renal structure and is likely implicated in a variety of nephropathies.

REFERENCES

- Miyata, T., et al. 2002. Overexpression of the serpin megsin induces progressive mesangial cell proliferation and expansion. *J. Clin. Invest.* 109: 585-593.
- Xia, Y.F., et al. 2006. A family-based association study of megsin A23167G polymorphism with susceptibility and progression of IgA nephropathy in a Chinese population. *Clin. Nephrol.* 65: 153-159.
- Inagi, R., et al. 2006. A severe diabetic nephropathy model with early development of nodule-like lesions induced by megsin overexpression in RAGE/iNOS transgenic mice. *Diabetes* 55: 356-366.
- Xia, Y., et al. 2006. Association of megsin 2093C-2180T haplotype at the 3' untranslated region with disease severity and progression of IgA nephropathy. *Nephrol. Dial. Transplant.* 21: 1570-1574.
- Miyata, T., et al. 2007. Megsin gene: its genomic analysis, pathobiological functions, and therapeutic perspectives. *Curr. Genomics* 8: 203-208.

CHROMOSOMAL LOCATION

Genetic locus: SERPINB7 (human) mapping to 18q21.33; Serpinb7 (mouse) mapping to 1 E2.1.

SOURCE

megsin (H-10) is a mouse monoclonal antibody raised against amino acids 32-165 mapping near the N-terminus of megsin of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

megsin (H-10) is available conjugated to agarose (sc-515694 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-515694 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-515694 PE), fluorescein (sc-515694 FITC), Alexa Fluor[®] 488 (sc-515694 AF488), Alexa Fluor[®] 546 (sc-515694 AF546), Alexa Fluor[®] 594 (sc-515694 AF594) or Alexa Fluor[®] 647 (sc-515694 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-515694 AF680) or Alexa Fluor[®] 790 (sc-515694 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

megsin (H-10) is recommended for detection of megsin of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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 megsin siRNA (h): sc-75768, megsin siRNA (m): sc-75769, megsin shRNA Plasmid (h): sc-75768-SH, megsin shRNA Plasmid (m): sc-75769-SH, megsin shRNA (h) Lentiviral Particles: sc-75768-V and megsin shRNA (m) Lentiviral Particles: sc-75769-V.

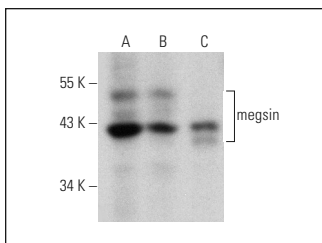
Molecular Weight of megsin: 43 kDa.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210, NRK whole cell lysate: sc-364197 or human keratinocyte whole cell lysate.

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. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz[®] Mounting Medium: sc-24941 or UltraCruz[®] Hard-set Mounting Medium: sc-359850.

DATA



megsin (H-10): sc-515694. Western blot analysis of megsin expression in NIH/3T3 (A), NRK (B) and human keratinocyte (C) 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 for detailed protocols and support products.