MEGF10 (A-20): sc-54242



The Boures to Overtion

BACKGROUND

MEGF10 (multiple epidermal growth factor-like domains 10) is a 1,140 amino acid protein encoded by the human gene MEGF10. MEGF10 belongs to the MEGF family and contains 15 EGF-like domains and one EMI domain. The engulfment of dying cells is a specialized form of phagocytosis that is highly conserved across evolution and is mediated by the concerted action of several molecules. MEGF10 is an engulfment receptor protein that localizes to the plasma membrane in a punctuated pattern. The MEGF10 protein shares structural similarities with nematode engulfment receptor cell death abnormal-1 (CED-1). MEGF10 function is modulated by the ATP binding cassette transporter ABCA1, which is an ortholog to CED-7. It is expressed at the cell surface in clusters around cell corpses during engulfment, and during the engulfment of apoptotic thymocytes is recruited to the bottom of the forming phagocytic cup.

REFERENCES

- Nagase, T., Nakayama, M., Nakajima, D., Kikuno, R. and Ohara, O. 2001. Prediction of the coding sequences of unidentified human genes. XX. The complete sequences of 100 new cDNA clones from brain which code for large proteins *in vitro*. DNA Res. 8: 85-95.
- Mangahas, P.M. and Zhou, Z. 2005. Clearance of apoptotic cells in *Caeno-rhabditis elegans*. Semin. Cell Dev. Biol. 16: 295-306.
- 3. Yu, X., Odera, S., Chuang, C.H., Lu, N. and Zhou, Z. 2006. *C. elegans* Dynamin mediates the signaling of phagocytic receptor CED-1 for the engulfment and degradation of apoptotic cells. Dev. Cell 10: 743-757.
- Hamon, Y., Trompier, D., Ma, Z., Venegas, V., Pophillat, M., Mignotte, V., Zhou, Z. and Chimini, G. 2007. Cooperation between engulfment receptors: the case of ABCA1 and MEGF10. PLoS ONE 1: e120.
- Krivtsov, A.V., Rozov, F.N., Zinovyeva, M.V., Hendrikx, P.J., Jiang, Y., Visser, J.W. and Belyavsky, A.V. 2007. Jedi-a novel transmembrane protein expressed in early hematopoietic cells. J. Cell. Biochem. 101: 767-784.
- Suzuki, E. and Nakayama, M. 2007. The mammalian CED-1 ortholog MEGF10/KIAA1780 displays a novel adhesion pattern. Exp. Cell Res. 313: 2451-2464.
- Suzuki, E. and Nakayama, M. 2007. MEGF10 is a mammalian ortholog of CED-1 that interacts with clathrin assembly protein complex 2 medium chain and induces large vacuole formation. Exp. Cell Res. 313: 3729-4372.

CHROMOSOMAL LOCATION

Genetic locus: MEGF10 (human) mapping to 5q23.2; Megf10 (mouse) mapping to 18 D3.

SOURCE

MEGF10 (A-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of MEGF10 of human origin.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

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-54242 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

MEGF10 (A-20) is recommended for detection of MEGF10 of mouse, rat and 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).

MEGF10 (A-20) is also recommended for detection of MEGF10 in additional species, including canine, bovine and avian.

Suitable for use as control antibody for MEGF10 siRNA (h): sc-39422, MEGF10 siRNA (m): sc-61910, MEGF10 shRNA Plasmid (h): sc-39422-SH, MEGF10 shRNA Plasmid (m): sc-61910-SH, MEGF10 shRNA (h) Lentiviral Particles: sc-39422-V and MEGF10 shRNA (m) Lentiviral Particles: sc-61910-V.

Molecular Weight of MEGF10: 122 kDa.

Positive Controls: BC3H1 cell lysate: sc-2299 or rat skeletal muscle extract: sc-364810.

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) with UltraCruz™ Mounting Medium: sc-24941.

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.

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