M-ficolin (h2): 293T Lysate: sc-159506



The Power to Question

BACKGROUND

M-ficolin, also known as ficolin-A, ficolin-1, ficolin- α , FCN1, FCNM or collagen/Fibrinogen domain containing protein 1, is a 326 amino acid member of the ficolin lectin family. Characteristic of ficolin family proteins, M-ficolin contains a short N-terminus, one collagen-like domain and one Fibrinogen-like domain at its C-terminus. M-ficolin is a secreted innate immunity pattern recognition molecule predominantly expressed in peripheral blood leukocytes. It is believed to function as a plasma protein and is known to interact with elastin, carbohydrates and corticosteroids. M-ficolin exists as a homopolymer through intermolecular disulfide bonding and is involved in activating lectin activity via association with MASPs and specific carbohydrate ligands.

REFERENCES

- 1. Ohashi, T. and Erickson, H.P. 1997. Two oligomeric forms of plasma ficolin have differential lectin activity. J. Biol. Chem. 272: 14220-14226.
- Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 601252. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
- Hummelshoj, T., Munthe-Fog, L., Madsen, H.O., Fujita, T., Matsushita, M. and Garred, P. 2005. Polymorphisms in the FCN2 gene determine serum variation and function of Ficolin-2. Hum. Mol. Genet. 14: 1651-1658.
- Frederiksen, P.D., Thiel, S., Larsen, C.B. and Jensenius, J.C. 2005. M-ficolin, an innate immune defence molecule, binds patterns of acetyl groups and activates complement. Scand. J. Immunol. 62: 462-473.
- 5. Liu, Y., Endo, Y., Iwaki, D., Nakata, M., Matsushita, M., Wada, I., Inoue, K., Munakata, M. and Fujita, T. 2005. Human M-ficolin is a secretory protein that activates the lectin complement pathway. J. Immunol. 175: 3150-3156.
- Thiel, S. 2007. Complement activating soluble pattern recognition molecules with collagen-like regions, mannan-binding lectin, ficolins and associated proteins. Mol. Immunol. 44: 3875-3888.
- Hummelshoj, T., Fog, L.M., Madsen, H.O., Sim, R.B. and Garred, P. 2007.
 Comparative study of the human ficolins reveals unique features of Ficolin-3 (Hakata antigen). Mol. Immunol. 45: 1623-1632.
- Garlatti, V., Martin, L., Gout, E., Reiser, J.B., Fujita, T., Arlaud, G.J., Thielens, N.M. and Gaboriaud, C. 2007. Structural basis for innate immune sensing by M-ficolin and its control by a pH-dependent conformational switch. J. Biol. Chem. 282: 35814-35820.
- Frankenberger, M., Schwaeble, W. and Ziegler-Heitbrock, L. 2008. Expression of M-ficolin in human monocytes and macrophages. Mol. Immunol. 45: 1424-1430.

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.

PROTOCOLS

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

CHROMOSOMAL LOCATION

Genetic locus: FCN1 (human) mapping to 9q34.3.

PRODUCT

M-ficolin (h2): 293T Lysate represents a lysate of human M-ficolin transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

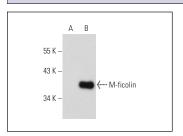
APPLICATIONS

M-ficolin (h2): 293T Lysate is suitable as a Western Blotting positive control for human reactive M-ficolin antibodies. Recommended use: 10-20 μ l per lane

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

M-ficolin (036-05-1): sc-80486 is recommended as a positive control antibody for Western Blot analysis of enhanced human M-ficolin expression in M-ficolin transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

DATA



M-ficolin (036-05-1): sc-80486. Western blot analysis of M-ficolin expression in non-transfected: sc-117752 (A) and human M-ficolin transfected: sc-159506 (B) 293T whole cell I vsates.

RESEARCH USE

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

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