SANTA CRUZ BIOTECHNOLOGY, INC.

FMIP (L-17): sc-5830

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Although the macrophage colony stimulating factor (M-CSF) and its receptor, c-Fms, are involved in the survival and proliferation of hematopoietic cells, little is known about the signalling events leading to differentiation into mature blood cells. An Fms-interacting protein, FMIP, transiently binds to M-CSF-activated Fms-molecules. This binding results in a rapid phosphorylation of FMIP within its Fms-binding domain, thereby dissociating Fms and FMIP. Endogenous levels of FMIP may form a threshold that decide whether bipotential progenitor cells differentiate into macrophages or granulocytes. Myeloid progenitor cells express low levels of endogenous FMIP and, upon M-CSF specific signalling, are differentiated into macrophages. Overexpression of FMIP may saturate Fms, which results in predominant cytoplasmic expression of FMIP and favors granulocyte differentiation.

REFERENCES

1. Ullrich, A. and Schlessinger, J. 1990. Signal transduction by receptors with tyrosine kinase activity. Cell 61: 203-212.
2. Gliniak, S.C. and Rohrschneider, R.L. 1990. Expression of the M-CSF receptor is controlled posttranscriptionally by the dominant actions of GM-CSF or multi-CSF. Cell 63: 1073-1083.
3. Ciba Foundation Symposium 204. 1997. The Molecular Basis of Cellular Defence Mechanisms. New York: John Wiley & Sons, 3-16.
4. Broudy, V.C. 1997. Stem cell factor and hematopoiesis. Blood 90: 1345-1364.
5. Tamura, T., Mancini, A., Joos, H., Koch, A., Hakim, C., Dumanski, J., Weidner, K.M. and Neimann, H. 1999. FMIP, a novel Fms-interacting protein, affects granulocyte/macrophage differentiation. Oncogene 18: 6488-6495.

CHROMOSOMAL LOCATION

Genetic locus: THOC5 (human) mapping to 22q12.2; Thoc5 (mouse) mapping to 11 A1.

SOURCE

FMIP (L-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of FMIP of mouse origin.

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-5830 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

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.

APPLICATIONS

FMIP (L-17) is recommended for detection of FMIP 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).

FMIP (L-17) is also recommended for detection of FMIP in additional species, including equine, canine and bovine.

Suitable for use as control antibody for FMIP siRNA (h): sc-105364, FMIP siRNA (m): sc-145205, FMIP shRNA Plasmid (h): sc-105364-SH, FMIP shRNA Plasmid (m): sc-145205-SH, FMIP shRNA (h) Lentiviral Particles: sc-105364-V and FMIP shRNA (m) Lentiviral Particles: sc-145205-V.

Molecular Weight of FMIP: 78 kDa.

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) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

PROTOCOLS

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