

FMIP (Y-17): sc-5829

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. A 78 kDa 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

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- 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.
- Cross, M.A., Heyworth, C.M. and Dexter, T.M. 1997. The Molecular Basis of cellular defence mechanisms, ciba foundation symposium. New York: John Wiley & Sons, 3-16.
- Broudy, V.C. 1997. Stem cell factor and hematopoiesis. *Blood* 90: 1345-1364.
- 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 (Y-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-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-5829 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 (Y-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), 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).

FMIP (Y-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.

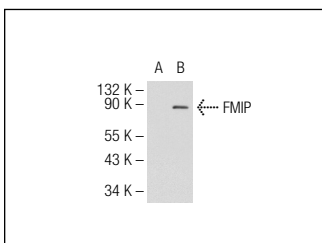
Molecular Weight of FMIP: 78 kDa.

Positive Controls: FMIP (h2): 293T Lysate: sc-128641 or Jurkat whole cell lysate: sc-2204.

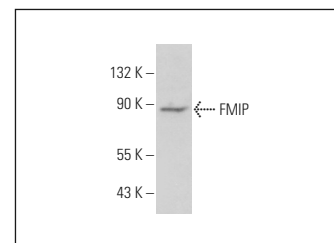
RECOMMENDED SECONDARY REAGENTS

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



FMIP (Y-17): sc-5829. Western blot analysis of FMIP expression in non-transfected: sc-117752 (A) and human FMIP transfected: sc-128641 (B) 293T whole cell lysates.



FMIP (Y-17): sc-5829. Western blot analysis of FMIP expression in Jurkat whole cell lysate.

PROTOCOLS

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