

# GM-CSF (NYRhGMCSF): sc-73290

## BACKGROUND

Colony stimulating factors (CSFs) were initially characterized by their ability to stimulate *in vitro* colony formation by hematopoietic progenitor cells in semisolid media. Several of these CSFs have been assigned an interleukin number, while three (GM-CSF, G-CSF and M-CSF) have retained their CSF designations. The human granulocyte-macrophage colony stimulating factor (GM-CSF) is a pleiotropic cytokine with a 17 amino acid signal peptide that is cleaved to produce the mature form of 127 amino acids. The mature murine GM-CSF protein is 124 amino acids and shares 60% homology with the human GM-CSF protein. GM-CSF is a glycoprotein that can stimulate the proliferation of hematopoietic cells including granulocytes and macrophages. It has been shown to promote the phosphorylation of cPLA2 in human neutrophils. The phosphorylation of cPLA2 was accompanied by an increase in the enzyme activity.

## REFERENCES

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6. Costello, R.T. 1993. Therapeutic use of granulocyte-macrophage colony-stimulating factor (GM-CSF). A review of recent experience. *Acta Oncol.* 32: 403-408.
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8. Nahas, N., Waterman, W.H. and Sha'afi, R.I. 1996. Granulocyte-macrophage colony-stimulating factor (GM-CSF) promotes phosphorylation and an increase in the activity of cytosolic phospholipase A2 in human neutrophils. *Biochem. J.* 313: 503-508.

## CHROMOSOMAL LOCATION

Genetic locus: CSF2 (human) mapping to 5q31.1.

## SOURCE

GM-CSF (NYRhGMCSF) is a mouse monoclonal antibody raised against recombinant GM-CSF of human origin.

## PRODUCT

Each vial contains 100 µg IgG in 1.0 ml PBS with < 0.1% sodium azide and 0.1% gelatin.

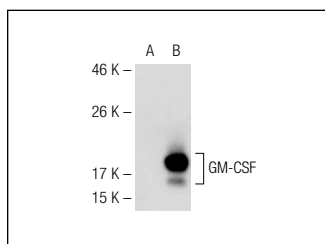
## APPLICATIONS

GM-CSF (NYRhGMCSF) is recommended for detection of GM-CSF of 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)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with other cytokines or growth factors, such as M-CSF, G-CSF, IL-8, IL-16, IL-1β, TGF β1 and TNFα.

Suitable for use as control antibody for GM-CSF siRNA (h): sc-39391; and as shRNA Plasmid control antibody for GM-CSF shRNA Plasmid (h): sc-39391-SH.

Molecular Weight of GM-CSF: 14 kDa.

## DATA



GM-CSF (NYRhGMCSF): sc-73290. Western blot analysis of GM-CSF expression in non-transfected: sc-117752 (A) and human GM-CSF transfected: sc-111983 (B) 293T 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](http://www.scbt.com) for detailed protocols and support products.