

# G-CSFR (N-16): sc-323898

## BACKGROUND

The diverse biological activities of G-CSF are initiated by the binding of G-CSF to a specific receptor (G-CSFR) that belongs to the cytokine/hematopoietic receptor superfamily. In contrast to the majority of hematopoietic receptors that are activated through the formation of heteromeric complexes composed of  $\alpha$ ,  $\beta$  and sometimes  $\gamma$  subunits, G-CSFR proteins are believed to form homodimeric complexes upon ligand binding. Four distinct alternative splice variants of G-CSFR have been described, one of which exists as a soluble receptor protein. Although G-CSFR lacks consensus motifs in its cytoplasmic domains that are characteristic of kinase activities, certain sequences have been identified that are conserved among several members of the cytokine receptor superfamily. For example, the carboxy terminal regions of G-CSFR contains a domain, designated box 3, that is only shared with the IL-6R subunit, gp130.

## REFERENCES

1. Bazan, J.F. 1989. A novel family of growth factor receptors: a common binding domain in the growth hormone, Prolactin, erythropoietin and IL-6 receptors, and the p75 IL-2 receptor  $\beta$  chain. *Biochem. Biophys. Res. Commun.* 164: 788-795.
2. Larsen, A., et al. 1990. Expression cloning of human granulocyte colony-stimulating factor receptor: a structural mosaic of hematopoietin receptor, immunoglobulin, and fibronectin domains. *J. Exp. Med.* 172: 1559-1570.
3. Fukunaga, R., et al. 1990. Three different mRNAs encoding human granulocyte colony-stimulating factor receptor. *Proc. Natl. Acad. Sci. USA* 87: 8702-8706.
4. Miyajima, A., et al. 1992. Cytokine receptors and signal transduction. *Annu. Rev. Immunol.* 10: 295-331.
5. Saito, M., et al. 1992. Molecular cloning of a murine IL-6 receptor-associated signal transducer, gp130, and its regulated expression *in vivo*. *J. Immunol.* 148: 4066-4071.

## CHROMOSOMAL LOCATION

Genetic locus: CSF3R (human) mapping to 1p34.3; Csf3r (mouse) mapping to 4 D2.2.

## SOURCE

G-CSFR (N-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an N-terminal extracellular domain of G-CSFR of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-323898 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## RESEARCH USE

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

## APPLICATIONS

G-CSFR (N-16) is recommended for detection of G-CSFR of mouse and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g 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).

G-CSFR (N-16) is also recommended for detection of G-CSFR in additional species, including equine.

Suitable for use as control antibody for G-CSFR siRNA (h): sc-40006, G-CSFR siRNA (m): sc-40007, G-CSFR shRNA Plasmid (h): sc-40006-SH, G-CSFR shRNA Plasmid (m): sc-40007-SH, G-CSFR shRNA (h) Lentiviral Particles: sc-40006-V and G-CSFR shRNA (m) Lentiviral Particles: sc-40007-V.

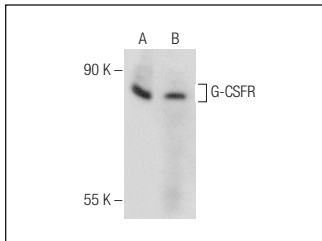
Molecular Weight of normal G-CSFR: 85-90 kDa.

Molecular Weight of glycosylated G-CSFR: 105-110 kDa.

Molecular Weight of heavily glycosylated G-CSFR: 130-135 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203, mouse placenta tissue extract or HL-60 whole cell lysate: sc-2209.

## DATA



G-CSFR (N-16): sc-323898. Western blot analysis of G-CSFR expression in K-562 (A) and HL-60 (B) 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.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.



Try **G-CSFR (A-7): sc-514639** or **G-CSFR (F-11): sc-393698**, our highly recommended monoclonal alternatives to G-CSFR (N-16).