SANTA CRUZ BIOTECHNOLOGY, INC.

G-CSFR (M-20): sc-694

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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 α, β and sometimes γ 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 contain a domain, designated box 3, that is only shared with the IL-6R subunit, gp130.

CHROMOSOMAL LOCATION

Genetic locus: Csf3r (mouse) mapping to 4 D2.2.

SOURCE

G-CSFR (M-20) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping at the C-terminus of G-CSFR 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-694 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

G-CSFR (M-20) is recommended for detection of G-CSFR of mouse and rat 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).

Suitable for use as control antibody for G-CSFR siRNA (m): sc-40007, G-CSFR shRNA Plasmid (m): sc-40007-SH 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: mouse placenta extract: sc-364247.

RESEARCH USE

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

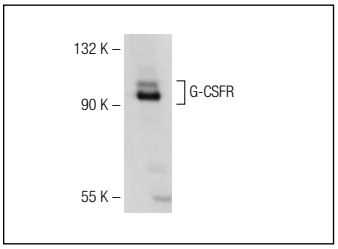
PROTOCOLS

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

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

DATA



G-CSFR (M-20): sc-694. Western blot analysis of G-CSFR expression in mouse placenta tissue extract.

SELECT PRODUCT CITATIONS

1. Naumann, U., et al. 2001. Chimeric tumor suppressor 1, a p53-derived chimeric tumor suppressor gene, kills p53 mutant and p53 wild-type glioma cells in synergy with irradiation and CD95 ligand. Cancer Res. 61: 5833-5842.
2. Gery, S., et al. 2005. C/EBP δ expression in a Bcr-Abl-positive cell line induces growth arrest and myeloid differentiation. Oncogene 24: 1589-1597.
3. Helbling, D., et al. 2005. CBFB-SMMHC is correlated with increased calreticulin expression and suppresses the granulocytic differentiation factor CEBPA in AML with inv(16). Blood 106: 1369-1375.
4. Guerzoni, C., et al. 2006. Inducible activation of CEBPB, a gene negatively regulated by Bcr/Abl, inhibits proliferation and promotes differentiation of Bcr/Abl-expressing cells. Blood 107: 1080-4089.
5. Ferrari-Amorotti, G., et al. 2006. Leukemogenesis induced by wild-type and STI571-resistant Bcr/Abl is potently suppressed by C/EBPα. Blood 108: 1353-1362.
6. Kuhlmann, M.T., et al. 2006. G-CSF/SCF reduces inducible arrhythmias in the infarcted heart potentially via increased connexin 43 expression and arteriogenesis. J. Exp. Med. 203: 87-97.
7. Meuer, K., et al. 2006. Granulocyte-colony stimulating factor is neuroprotective in a model of Parkinson's disease. J. Neurochem. 97: 675-686.
8. Pitzer, C., et al. 2010. The hematopoietic factor granulocyte-colony stimulating factor improves outcome in experimental spinal cord injury. J. Neurochem. 113: 930-942.
9. Henriques, A., et al. 2010. G-CSF protects motoneurons against axotomy-induced apoptotic death in neonatal mice. BMC Neurosci. 11: 25.
10. Burek, M., et al. 2014. Differential cytokine release from brain microvascular endothelial cells treated with dexamethasone and multiple sclerosis patient sera. J. Steroids Hormon. Sci. 5: 128.