G-CSF (3D1): sc-53292

**BACKGROUND**

Granulocyte-colony stimulating factor, G-CSF, is a pleiotropic cytokine that influences differentiation, proliferation and activation of the neutrophilic granulocyte lineage. The murine G-CSF cDNA encodes a 208 amino acid precursor containing a 30 amino acid signal peptide that is proteolytically cleaved to form a 178 amino acid residue mature protein. Two G-CSF cDNAs, which are identical except for a three amino acid deletion in the amino terminus of one form of the protein, have been isolated from human cells. Murine and human G-CSF share 73% sequence identity at the amino acid level. G-CSF signals through the G-CSF receptor, G-CSFR, a heavily glycosylated 812 amino acid polypeptide with a single transmembrane domain. Stimulation of the G-CSFR results in the activation of the Ras/MAPK pathway and phosphorylation of the adaptor protein Shc. Studies indicate that the kinases Lyn and Syk and the the transcription factor Stat3 are activated in response to G-CSF stimulation.

**CHROMOSOMAL LOCATION**

Genetic locus: CSF3 (human) mapping to 17q21.1.

**SOURCE**

G-CSF (3D1) is a mouse monoclonal antibody raised against recombinant G-CSF of human origin.

**PRODUCT**

Each vial contains 200 µg IgGκ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available azide-free for neutralizing, sc-53292 L, 200 µg/0.1 ml.

G-CSF (3D1) is available conjugated to agarose (sc-53292 AC), 500 µg/0.25 ml agarose in 1 ml, for IP, to HRP (sc-53292 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-53292 PE), fluorescein (sc-53292 FITC), Alexa Fluor® 488 (sc-53292 AF488), Alexa Fluor® 546 (sc-53292 AF546), Alexa Fluor® 594 (sc-53292 AF594) or Alexa Fluor® 647 (sc-53292 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-53292 AF680) or Alexa Fluor® 790 (sc-53292 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

**APPLICATIONS**

G-CSF (3D1) is recommended for detection of G-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)), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for G-CSF siRNA (h): sc-39389, G-CSF shRNA Plasmid (h): sc-39389-SH and G-CSF shRNA (h) Lentiviral Particles: sc-39389-V.

Molecular Weight of G-CSF: 19 kDa.

Positive Controls: U-698-M whole cell lysate: sc-364799.

**STORAGE**

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

**DATA**

**SELECT PRODUCT CITATIONS**


**RESEARCH USE**

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