SANTA CRUZ BIOTECHNOLOGY, INC.

G-CSFR (F-11): sc-393698

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.

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 β-chain. Biochem. Biophys. Res. Commun. 164: 788-795.
2. Fukunaga, R., et al. 1990. Three different mRNAs encoding human granulocyte colony-stimulating factor receptor. Proc. Natl. Acad. Sci. USA 87: 8702-8706.
3. 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.
4. Miyajima, A., et al. 1992. Cytokine receptors and signal transduction. Annu. Rev. Immunol. 10: 295-331.

CHROMOSOMAL LOCATION

Genetic locus: CSF3R (human) mapping to 1p34.3.

SOURCE

G-CSFR (F-11) is a mouse monoclonal antibody raised against amino acids 25-200 mapping near the N-terminus of G-CSFR of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

G-CSFR (F-11) is available conjugated to agarose (sc-393698 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-393698 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-393698 PE), fluorescein (sc-393698 FITC), Alexa Fluor® 488 (sc-393698 AF488), Alexa Fluor® 546 (sc-393698 AF546), Alexa Fluor® 594 (sc-393698 AF594) or Alexa Fluor® 647 (sc-393698 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-393698 AF680) or Alexa Fluor® 790 (sc-393698 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

RESEARCH USE

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

APPLICATIONS

G-CSFR (F-11) is recommended for detection of G-CSFR of human origin by Western Blotting (starting dilution 1:100, 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 (h): sc-40006, G-CSFR shRNA Plasmid (h): sc-40006-SH and G-CSFR shRNA (h) Lentiviral Particles: sc-40006-V.

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

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

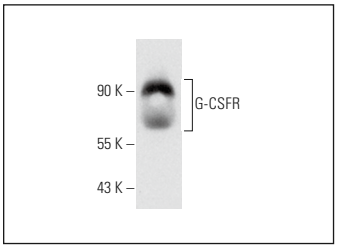
Molecular Weight of heavily glycosylated G-CSFR: 130-135 kDa.

Positive Controls: human placenta extract: sc-363772 or G-CSFR (h): 293T Lysate: sc-116475.

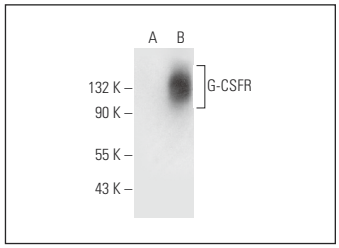
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



G-CSFR (F-11): sc-393698. Western blot analysis of G-CSFR expression in human placenta tissue extract.



G-CSFR (F-11): sc-393698. Western blot analysis of G-CSFR expression in non-transfected: sc-117752 (**A**) and human G-CSFR transfected: sc-116475 (**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.

PROTOCOLS

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