DATASHEET

G-CSF Rabbit Monoclonal Antibody(C4068)

CAT. NO. AMA03888

KEY FEATURES

Target	G-CSF	Source / Host	Rabbit
Reactivity	Human, Mouse, Rat	Clonality	Monoclonal
Applications	WB,IHC,IF/ICC	Conjugation	Unconjugated
Form / Buffer	Liquid in PBS, pH 7.3, 50% glycerol, 0.05% BSA, and 0.05% Proclin300.	Storage	at -20°C

BACKGROUND

G-CSF (Granulocyte colony stimulating factor) is a naturally occurring cytokine that stimulates the production and antibacterial function of neutrophils and monocytes. Human G-CSF is an 18.8 kDa protein containing 175 amino acid residues, and a soluble isoform of the G-CSF receptor has been described. The pleotropic cytokine is produced by activated monocytes, macrophages, endothelial cells, fibroblasts, astrocytes, osteoblasts and bone marrow cells. G-CSF has been shown to have specific effects on the proliferation, differentiation and activation of hematopoietic cells. G-CSF is also expressed by various transformed cells such as carcinoma cells and myeloblastic leukemia cells. G-CSF is encoded by two distinct DNA sequences, resulting in a full size, high activity and a shorter, low activity isoform of G-CSF. G-CSF is highly conserved among species and has been shown to exert its biological functions through interaction with its receptor expressed on the surface of hematopoietic progenitors, neutrophilic granulocytes and certain carcinoma cell lines. Clinical use of G-CSF has been approved for several therapeutic applications, treatment of neonatal infections, therapy of acute myocardial infarction, granulocyte transfusion in patients with neutropenia, in severe infections and sepsis, therapy in chronic autoimmune neutropenia, treatment of acute myeloid leukemias, Sweet’ s syndrome and AIDS. Further, G-CSF has been shown to be a marker protein for different carcinomas such as bladder cancer and dysfunction of the protein has been linked to Kostmann Syndrome.

APPLICATION

To ensure optimal assay performance, AREX recommends conducting reagent titration tailored to each testing system for optimal detection results.

WB	1:500 - 1:2000
IHC	
IF/ICC	1:50 - 1:200

*Results are sample-specific. Please refer to your local assay conditions and test parameters for reference.

OVERVIEW

Description	Recombinant rabbit monoclonal antibody to G-CSF
Specificity	Recognizes endogenous levels of G-CSF protein
Antibody Type	Primary antibody, Recombinant
Immunogen	KLH-conjugated synthetic peptide encompassing a sequence within human G-CSF protein. The exact sequence is proprietary.
Purification	The antibody was purified by immunogen affinity chromatography.
Form/Buffer	Liquid in PBS, pH 7.3, 50% glycerol, 0.05% BSA, and 0.05% Proclin300.
Alternative Names	C17orf33; GCSF; Granulocyte colony-stimulating factor; G-CSF; Pluripoietin; Filgrastim; Lenograstim
Gene Symbol	CSF3
Entrez Gene	1440(Human);12985(Mouse);
SwissProt	P09919(Human);P09920(Mouse);

*AREX continuously optimizes our products. Webpage content may not reflect the latest updates. For inquiries, please contact info@arexbio.com or your local distributor.

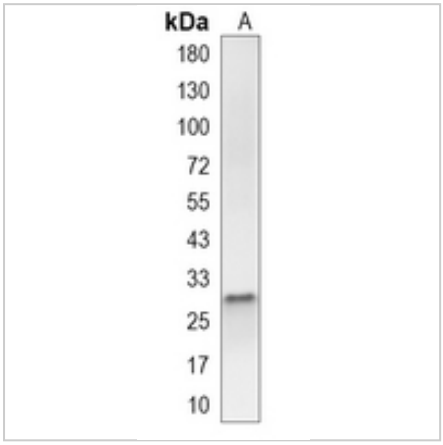
*Clone Number, Reactivity, Source/Host and Clonality can be found in the product name and Key Features section above.

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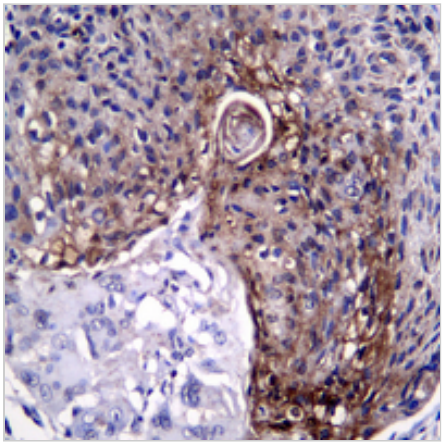
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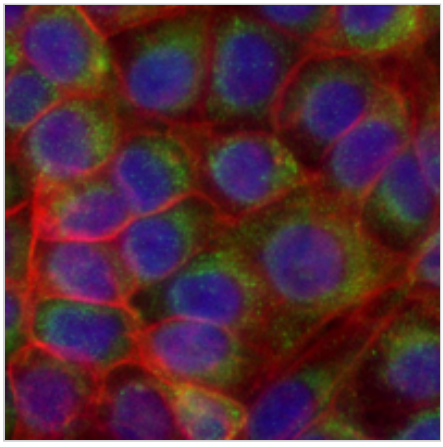
DATA



Western blot analysis of G-CSF expression in MCF7 (A) whole cell lysates. (Predicted band size: 22 kD; Observed band size: 30 kD)



Immunohistochemical analysis of G-CSF staining in human esophagus cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



Immunofluorescent analysis of G-CSF staining in MCF7 cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a humidified chamber. Cells were washed with PBST and incubated with an AREX® Fluor 488-conjugated secondary antibody (green) in PBS at room temperature in the dark. Phalloidin - AREX® Fluor 594 was used to stain Actin filaments (red). DAPI was used to stain the cell nuclei (blue).

STORAGE

Store at 4°C short term. For long term storage, store at -20°C, avoiding freeze/thaw cycles.

NOTE

For Research Use Only. Not for diagnostic, therapeutics, prophylactic or in vivo use.

More information: www.arexbio.com