

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human GM-CSF in direct ELISAs and Western blots.
Source	Recombinant Monoclonal Mouse IgG ₁ Clone # 3209R
Purification	Protein A or G purified from cell culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human GM-CSF Ala18-Glu144 Accession # P04141
Endotoxin Level	<0.10 EU per 1 µg of the antibody by the LAL method.
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

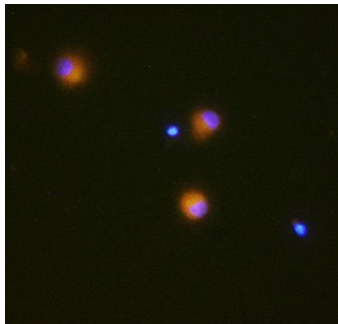
APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
Western Blot	1 µg/mL	Recombinant Human GM-CSF (Catalog # 215-GM) under non-reducing conditions only
Immunocytochemistry	5-25 µg/mL	See Below
Neutralization	Measured by its ability to neutralize GM-CSF-induced proliferation in the TF-1 human erythroleukemic cell line. Kitamura, T. <i>et al.</i> (1989) <i>J. Cell Physiol.</i> 140 :323. The Neutralization Dose (ND ₅₀) is typically 0.075-0.45 µg/mL in the presence of 0.1 ng/mL Recombinant Human GM-CSF.	

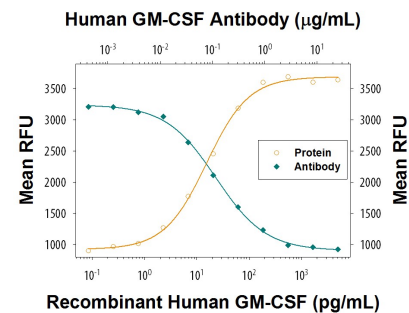
DATA

Immunocytochemistry



GM-CSF in Human Dendritic Cells.
GM-CSF was detected in immersion fixed differentiated human dendritic cells using Mouse Anti-Human GM-CSF Monoclonal Antibody (Catalog # MAB215R) at 10 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Mouse IgG Secondary Antibody (yellow; Catalog # NL007) and counterstained with DAPI (blue). Specific staining was localized to cytoplasm. View our protocol for [Fluorescent ICC Staining of Non-adherent Cells](#).

Neutralization



Cell Proliferation Induced by GM-CSF and Neutralization by Human GM-CSF Antibody. Recombinant Human GM-CSF (Catalog # 215-GM) stimulates proliferation in the TF-1 human erythroleukemic cell line in a dose-dependent manner (orange line) as measured by Resazurin (Catalog # AR002). Proliferation elicited by Recombinant Human GM-CSF (0.1 ng/mL) is neutralized (green line) by increasing concentrations of Human GM-CSF Monoclonal Antibody (Catalog # MAB215R). The ND₅₀ is typically 0.075-0.45 µg/mL.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

Granulocyte Macrophage Colony Stimulating Factor (GM-CSF) is a growth factor produced by a variety of lymphoid cells. It binds to receptor heterodimers consisting of a GM-CSF-specific α chain and the common β chain that is shared by the high-affinity receptors for IL-3 and IL-5.