Datasheet for ABIN2444133

GM-CSF Protein (AA 18-144) (Biotin)

1 Image

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Overview

Quantity:	200 µg
Target:	GM-CSF (CSF2)
Protein Characteristics:	AA 18-144
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This GM-CSF protein is labelled with Biotin.

Product Details

Brand:	MABSol®,UltraLys
Sequence:	AA 18-144
Specificity:	The primary amines in the side chains of lysine residues and the N-terminus of the protein are conjugated with biotins using standard chemical labeling method. A standard biotin reagent (13.5 angstroms) is used in this product.
Characteristics:	The product does NOT contain any epitope tags. The protein has a calculated MW of 14.5 kDa. The protein migrates as 18-28 kDa on a SDS-PAGE gel under reducing (R) condition due to glycosylation.
Purity:	>95 % as determined by SDS-PAGE.
Endotoxin Level:	Less than 1.0 EU per µg by the LAL method.

Target Details

Target:	GM-CSF (CSF2)
Alternative Name:	GM-CSF (CSF2 Products)
Background:	Granulocyte-macrophage colony-stimulating factor (GM-CSF) is also known as Colony stimulating factor 2 (granulocyte-macrophage), is a cytokine initially characterized by its ability to induce colonies of granulocytes and macrophages from myeloid progenitor cells, and is secreted by macrophages, T cells, mast cells, endothelial cells and fibroblasts. GM-CSF is a cytokine that functions as a white blood cell growth factor. GM-CSF stimulates stem cells to produce granulocytes (neutrophils, eosinophils, and basophils) and monocytes. Monocytes exitthe circulation and migrate into tissue, whereupon they mature into macrophages and dendritic cells. Thus, it is part of the immune/inflammatory cascade, by which activation of a small number of macrophages can rapidly lead to an increase in their numbers, a process crucial for fighting infection. The active form of the protein is found extracellularly as a homodimer. Human GM-CSF glycosylated in its mature form. As a part of the immune/inflammatory cascade, GM-CSF promotes Th1 biased immune response, angiogenesis, allergic inflammation, and the development of autoimmunity, and thus worthy of consideration for therapeutic target. GM-CSF has also recently been evaluated in clinical trials for its potential as a vaccine adjuvant in HIV-infected patients. The preliminary results have been promising. GM-CSF is also used as a medication to stimulate the production of white blood cells following chemotherapy.
Molecular Weight:	14.5 kDa
NCBI Accession:	NP_000749
Pathways:	JAK-STAT Signaling, Cellular Response to Molecule of Bacterial Origin

Application Details

Comment:	A chemically labeled biotinylated protein with ultra sensitivity. The product is produced using a chemical labeling approach. The primary amines in the side chains of lysine residues and the N-terminus of protein are conjugated with biotins. Chemical labeling usually results in multiple biotin attachment on a single protein molecule, which could potentially lead to higher detection sensitivity.
Restrictions:	For Research Use only

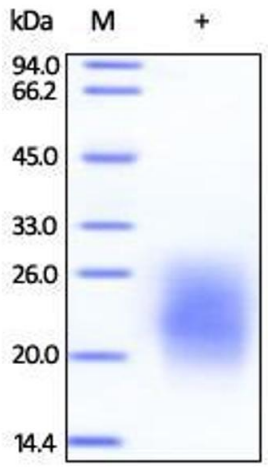
Handling

Format:	Lyophilized

Handling

Buffer:	PBS, pH 7.4
Handling Advice:	Please avoid repeated freeze-thaw cycles.
Storage:	-20 °C
Storage Comment:	Lyophilized Protein should be stored at -20 °C or lower for long term storage. Upon reconstitution, working aliquots should be stored at -20 °C or -70 °C. Avoid repeated freeze-thaw cycles.

Images



SDS-PAGE

Image 1. Biotinylated Human GM-CSF on SDS-PAGE under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 95%.