GM-CSF Rat Active Protein

PRODUCT OVERVIEW

Product Name	GM-CSF, Active Protein
Full Product Name	Rat GM-CSF
Product Gene Name	GM-CSF active protein
Product Synonym Names	Recombinant Rat GM-CSF
Sequence	MAPTRSPNPV TRPWKHVDAI KEALSLLNDM RALENEKNED VDIISN EFSI QRPTCVQTRL KLYKQGLRGN LTKLNGALTM IASHYQTNCP P TPETDCEIE VTTFEDFIKN LKGFLFDIPF DCWKPVQK
Host	E Coli
Species Reactivity	Rat
Form/Format	Lyophilized
Purity/Purification	> 98% by SDS-PAGE and HPLC analysis
Molecular Weight	14.5 kDa
Chromosome Location	Chromosome: 10; NC_005109.3 (39379120..39381430, complement). Location: 10q22
3D Structure	ModBase 3D Structure for P48750
Active Protein Note	Protein activity can be an ambiguous term. Please refer to the data sheet or inquire with Technical Support to determine the definition of activity for this product.
Endotoxin Level	< 0.1 ng/ug of GM-CSF
Biological Activity	The ED50 was determined by the dose-dependent stimulation of the proliferation of Murine FDC-P1 cells is <= 0.01 ng/ml, corresponding to a specific activity of >= 1.0 x 108 units/mg.
Product Categories/Family for GM-CSF active protein	Cytokines & Growth Factors
ISO Certification	Manufactured in an ISO 9001:2008 Certified Laboratory.
Related Product Information for GM-CSF active protein	GM-CSF is a hematopoietic growth factor that stimulates the development of neutrophils and macrophages and promotes the proliferation and development of early erythroid megakaryocytic and eosinophilic progenitor cells. It is produced in by endothelial cells, monocytes, fibroblasts and T-lymphocytes. GM-CSF inhibits neutrophil migration and enhances the functional activity of the mature end-cells. The human and murine molecules are species-specific and exhibit no cross-species reactivity. Recombinant rat GM-CSF is a 14.5 kDa globular protein consisting of 128 amino acids residues.
Other Notes	Small volumes of GM-CSF active protein vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for GM-CSF purchase	MBS692145 is an active protein targeting GM-CSF. Also known as Rat GM-CSF. Reactive in Rat. Host: E Coli.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for GM-CSF. It may not necessarily be applicable to this product.

NCBI GI #	449083355
NCBI GeneID	116630

NCBI Accession #	NP_446304.1
UniProt Primary Accession #	P48750
UniProt Related Accession #	P48750
GenBank Nucleotide #	NM_053852.1
NCBI Official Full Name	granulocyte-macrophage colony-stimulating factor
NCBI Official Synonym Full Names	colony stimulating factor 2 (granulocyte-macrophage)
NCBI Official Symbol	Csf2
NCBI Official Synonym Symbols	Gmcsf; Gm-csf
UniProt Protein Name	Granulocyte-macrophage colony-stimulating factor
UniProt Synonym Protein Names	Colony-stimulating factor
Protein Family	Granulocyte colony-stimulating factor receptor
UniProt Gene Name	Csf2
UniProt Synonym Gene Names	Csfgm; GM-CSF; CSF
UniProt Entry Name	CSF2_RAT
NCBI Protein Information	granulocyte-macrophage colony-stimulating factor; CSF
NCBI Summary for GM-CSF	plays a role in alveolar epithelial fluid transport [RGD, Feb 2006]
UniProt Comments for GM-CSF	Function: Cytokine that stimulates the growth and differentiation of hematopoietic precursor cells from various lineages, including granulocytes, macrophages, eosinophils and erythrocytes By similarity. Subunit structure: Monomer. The signaling GM-CSF receptor complex is a dodecamer of two head-to-head hexamers of two alpha, two beta, and two ligand subunits By similarity. Subcellular location: Secreted. Sequence similarities: Belongs to the GM-CSF family.
Research Articles on GM-CSF	**1.** Expression of SCF+GM-CSF after hepatectomy can contribute to biliary remodeling (e.g., post-transplantation) by functional deregulation of the activity of key signaling intermediates involved in cell expansion and multipotent differentiation.
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