

GM-CSF Recombinant Protein | CSF2 recombinant protein

GM-CSF Protein, Mouse, Recombinant (hFc Tag)

CATALOG #
AAA257487

HOST
HEK293 Cells

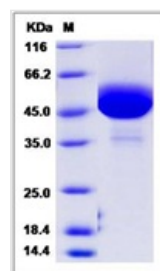
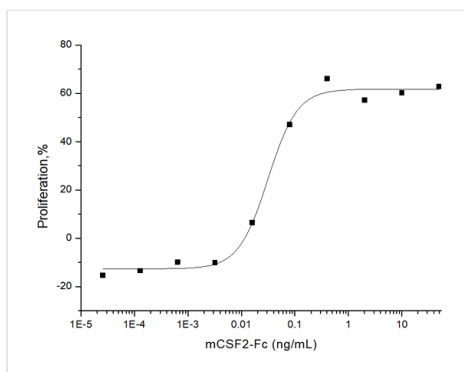
PRODUCT SYNONYMS

GM-CSF; GM-CSF Protein; Mouse; Recombinant (hFc Tag); Mouse GM-CSF/CSF2 Protein (Fc Tag); colony stimulating factor 2 (granulocyte-macrophage); Csfgm Protein; Gm-CSf Protein; GMCSF Protein; MGI-IGM Protein; CSF2 recombinant protein

PRODUCT SPECIFICATIONS

Host	HEK293 Cells
Purity/Purification	>95 % as determined by SDS-PAGE
Form/Format	Lyophilized from sterile PBS, pH7.4. Normally 5%-8% trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization.
Sequence Positions	384aa
Sequence	Ala18-Lys1 41
Species	Mouse
Tag	hFc
Endotoxin	<1.0EU per ug of the protein as determined by the LAL method
Predicted N Terminal	Glu
Protein Construction	JA DNA sequence encoding the mouse CSF2 (P01587) (Ala18-Lys141) was expressed with the fused Fc region of human IgG1 at the N-terminus
Activity	Measured in a cell proliferation assay using FDC-P1 cells. The ED50 for this effect is typically 0.02-0.1ng/mL.
Preparation and Storage	Samples are stable for up to twelve months from date of receipt at -20 degree C to -80 degree C. Store it under sterile conditions at -20 degree C to -80 degree C. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles. Shipping: They are shipped out with blue ice pack

IMAGES



Application Data

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ADDITIONAL INFORMATION

Related Product Information for CSF2 recombinant protein	Granulocyte-macrophage colony-stimulating factor (GM-CSF) is one of an array of cytokines with pivotal roles in embryo implantation and subsequent development. Several cell lineages in the reproductive tract and gestational tissues synthesise GM-CSF under direction by ovarian steroid hormones and signalling agents originating in male seminal fluid and the conceptus. The pre-implantation embryo, invading placental trophoblast cells and the abundant populations of leukocytes controlling maternal immune tolerance are all subject to GM-CSF regulation. GM-CSF stimulates the differentiation of hematopoietic progenitors to monocytes and neutrophils, and reduces the risk for febrile neutropenia in cancer patients. GM-CSF also has been shown to induce the differentiation of myeloid dendritic cells (DCs) that promote the development of T-helper type 1 (cellular) immune responses in cognate T cells. The active form of the protein is found extracellularly as a homodimer, and the encoding gene is localized to a related gene cluster at chromosome region 5q31 which is known to be associated with 5q-syndrome and acute myelogenous leukemia. 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 been utilized in the clinical management of multiple disease processes. Most recently, GM-CSF has been incorporated into the treatment of malignancies as a sole therapy, as well as a vaccine adjuvant. While the benefits of GM-CSF in this arena have been promising, recent reports have suggested the potential for GM-CSF to induce immune suppression and, thus, negatively impact outcomes in the management of cancer patients. GM-CSF deficiency in pregnancy adversely impacts fetal and placental development, as well as progeny viability and growth after birth, highlighting this cytokine as a central maternal determinant of pregnancy outcome with clinical relevance in human fertility.
Product Categories/Family for CSF2 recombinant protein	Cancer Drug Targets; IL17 signaling pathway
References	Robertson SA. (2007) GM-CSF regulation of embryo development and pregnancy. Cytokine Growth Factor Rev. 18(3-4): 287-98. Waller EK. (2007) The role of sargramostim (rhGM-CSF) as immunotherapy. Oncologist. 12 Suppl 2: 22-6. Clive KS, et al. (2010) Use of GM-CSF as an adjuvant with cancer vaccines: beneficial or detrimental? Expert Rev Vaccines. 9(5): 519-25.

NCBI AND UNIPROT INFORMATION

NCBI GI #	110625658
NCBI GeneID	12981
NCBI Accession #	NP_034099.2
NCBI GenBank Nucleotide #	NM_009969.4
UniProt Accession #	P01587
Molecular Weight	16,091 Da
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	Csfgm; GMCSF; Gm-CSF; MGI-IGM
NCBI Protein Information	granulocyte-macrophage colony-stimulating factor; CSF; granulocyte-macrophage colony stimulating factor 2; put. GM-CSF
UniProt Protein Name	Granulocyte-macrophage colony-stimulating factor
UniProt Gene Name	Csf2
UniProt Synonym Gene Names	Csfgm; GM-CSF; CSF
UniProt Entry Name	CSF2_MOUSE

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

