Rev. 1

Recombinant Murine GM-CSF (rmGM-CSF)

Catalog #122-03

Product Description

GM-CSF was initially characterized as a factor that can support the in vitro colony formation of granulocyte-macrophage progenitors. It is also a growth factor for erythroid, megakaryocyte, and eosinophil progenitors. GM-CSF is produced by T cells, B cells, macrophages, mast cells, endothelial cells, fibroblasts, and adipocytes in response to cytokine or inflammatory stimuli. On mature hematopoietic cells, GM-CSF acts as a prosurvival factor and activates effector functions of granulocytes, monocytes/macrophages, and eosinophils. It promotes a Th1 biased immune response, angiogenesis, allergic inflammation, and the development of autoimmunity. GM-CSF, similar to IL-3 and IL-5, is a cytokine with a core of four bundled α-helices. Mature mouse GM-CSF is glycosylated and shares 49% - 54% amino acid sequence identity with canine, feline, human, and porcine GM-CSF and 69% with rat GM-CSF. The activity of GM-CSF is species specific between human and mouse. Mouse GM-CSF is only weakly active on rat cells, although rat GM-CSF is fully active on mouse cells. This product has a His tag at the C-terminus.

Specifications

Synonyms	CSF-2, MGI-1GM, GM-CSF, Pluripoietin-alpha, Molgramostin, Sargramostim
AA Sequence	APTRSPITVTRPWKHVEAIKEALNLLDDMPVTLNEEVEVVSNEF SFKKLTCVQTRLKIFEQGLRGNFTKLKGALNMTASYYQTYCPP TPETDCETQVTTYADFIDSLKTFLTDIPFECKKPGQKAAAHHHH HH
Source	*Pichia pastoris*
Molecular Weight	Predicted molecular weight at 15.1 kDa. Apparent molecular weight on SDS-PAGE at approximately 17 & 21 kDa due to glycosylation.
Purity	> 95% by SDS-PAGE
Physical Appearance	White lyophilized powder
Endotoxin	<0.1 ng/μg of protein (<1 EU/μg)

Formulation

Lyophilized from a 0.2μm filtered solution in PBS, pH 7.4.

Product Usage

This product is for research use only. It is not approved for use in humans, animals, or *in vitro* diagnostic procedures.

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Reconstitution

Reconstitute in sterile distilled water containing 0.1% BSA to a concentration of 0.1-1.0 mg/mL.

Storage

Store at -20°C after receiving. Upon reconstitution, store at 2-8°C for up to one week. For maximal stability, aliquot and store at -20°C. Avoid repeated freeze/ thaw cycles.

Shipping

Dry ice.