Recombinant Human Granulocyte Macrophage Colony Stimlating Factor (rHu GM-CSF)

Catalog No: #70203

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Description

Product Name	Recombinant Human Granulocyte Macrophage Colony Stimlating Factor (rHu GM-CSF)
Brief Description	Recombinant Protein
Host Species	E.coli
Purification	> 98 % by SDS-PAGE and HPLC analyses.
Species Reactivity	Hu
Target Name	rHu GM-CSF
Other Names	Granulocyte Macrophage Colony-Stimulating Factor, CSF-2, MGI-1GM, Pluripoietin-α
Accession No.	accession:P04141 GeneID:1437
Uniprot	P04141
GeneID	1437;
Calculated MW	Approximately 14.5 kDa, a sing
SDS-PAGE MW	Sterile Filtered White lyophil
Target Sequence	APARSPSPST QPWEHVNAIQ EARRLLNLSR DTAAEMNETV EVISEMFDLQ EPTCLQTRLE LYKQGLRGSL TKLKGPLTMM ASHYKQHCPP TPETSCATQI ITFESFKENL KDFLLVIPFD CWEPVQE
Formulation	Lyophilized from a 0.2 μm filtered concentrated solution in PBS, pH 7.4.
Storage	This lyophilized preparation is stable at 2-8 °C, but should be kept at -20 °C for long term storage, preferably desiccated. Upon reconstitution, the preparation is stable for up to one week at 2-8 °C. For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20 °C to -70 °C. Avoid repeated freeze thaw cycles.

Background

Granulocyte-Macrophage Colony Stimulating Factor (GM-CSF) is secreted by a number of different cell types (including activated T cells, B cells, macrophages, mast cells, endothelial cells and fibroblasts) in response to cytokine or immune and inflammatory stimulation. It was initially characterized as a growth factor that can support the in vitro colony formation of granulocyte-macrophage progenitors and has functions of stimulates the growth and differentiation of hematopoietic precursor cells from various lineages. GM-CSF has also been reported to have a functional role on non-hematopoietic cells and can induce human endothelial cells to migrate and proliferate. Additionally, it can stimulate the proliferation of a number of tumor cell lines, including osteogenic sarcoma, carcinoma and adenocarcinoma cell lines. Human GM-CSF shares 54 % sequences identity with mouse GM-CSF, but has no biological effects across species. GM-CSF is used as a medication to stimulate the production of white blood cells following chemotherapy and has also recently been evaluated in clinical trials for its potential as a vaccine adjuvant in HIV-infected patients.

References

1. Wang JM, Chen ZG, Colotta F, et al. 1988. Behring Inst Mitt: 270-3.
2. 1989. N Engl J Med, 320: 253-4.
3. Nissen-Druey C. 1989. Nouv Rev Fr Hematol, 31: 99-101.
4. Eager RandNemunaitis J. 2005. Mol Ther, 12: 18-27.
5. Tran T, Fernandes DJ, Schuliga M, et al. 2005. Br J Pharmacol, 145: 123-31.

Note: This product is for in vitro research use only