Epoto Biotech

南京艾璞拓生物科技有限公司

Recombinant Mouse CSF2, Tag Free

Catalog Number: MF-2042

General Information

Synonyms	Colony-stimulating factor; CSF; CSF2; CSF-2; GMCSF; GM-CSF; Molgramostim; molgramostin
Accession #	P01587
Source	Human embryonic kidney cell, HEK293-derived mouse CSF2 protein
	Ala18-Lys141
Predicted Moleucular weight	14.1 kDa

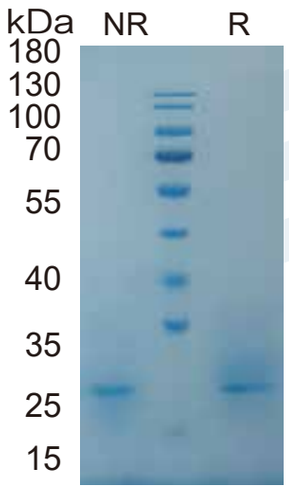
Components and Storage

Formulation	Solution protein.
	Dissolved in sterile PBS buffer.
	This solution can be diluted into other aqueous buffers. Centrifuge the vial prior to opening.
Storage and Stability	Avoid repeated freeze-thaw cycles.
	It is recommended that the protein be aliquoted for optimal storage.
	12 months from date of receipt, -20 to -70 ° C as supplied.
Shipping	Shipping with dry ice

Quality

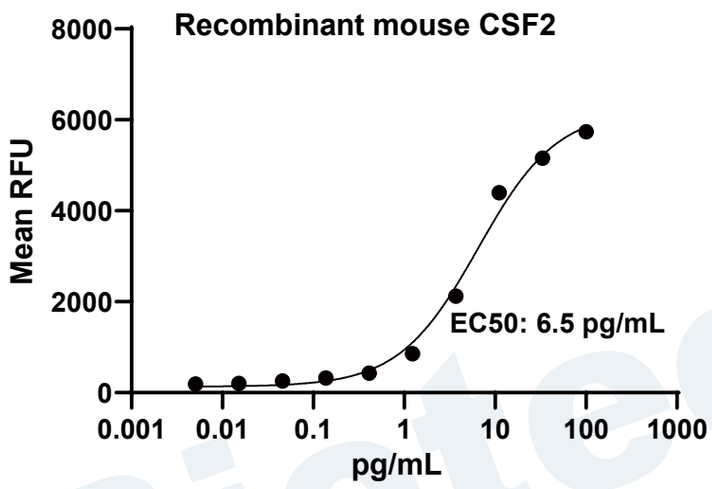
Purity	> 95%, determined by SDS-PAGE
Endotoxin Level	<0.010 EU per 1 ug of the protein by the LAL method
Activity	Measured in a cell proliferation assay using DA3 mouse myeloma cells.
	The EC50 for this effect is 5-30 pg/mL.

SDS-PAGE



4 ug/lane protein was resolved with SDS-PAGE under non-reducing (NR) and reducing (R) conditions and visualized by Coomassie Blue staining.

Bioactivity



Recombinant mouse CSF2(Catalog # MF-2042) stimulates cell proliferation of the DA3 mouse myeloma cells

Background

CSF2 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 a number of different cell types (including 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 is a survival factor for and activates the effector functions of granulocytes, monocytes/macrophages, and eosinophils (1, 2). GM-CSF promotes a Th1 biased immune response, angiogenesis, allergic inflammation, and the development of autoimmunity (3-5). It shows clinical effectiveness in ameliorating chemotherapy-induced neutropenia, and GM-CSF transfected tumor cells are utilized as cancer vaccines (6, 7). The 22 kDa glycosylated GM-CSF, similar to IL-3 and IL-5, is a cytokine with a core of four bundled alpha -helices (8-10). Mature mouse GM-CSF shares 49%-54% amino acid sequence identity with canine, feline, human, and porcine GM-CSF and 69% with rat GM-CSF. GM-CSF exerts its biological effects through a heterodimeric receptor complex composed of GM-CSF R alpha /CD116 and the signal transducing common beta chain (CD131) which is also a component of the high-affinity receptors for IL-3 and IL-5 (11, 12). In addition, GM-CSF binds a naturally occurring soluble form of GM-CSF R alpha (13).

Reference

1. Martinez-Moczygemba, et al. (2003) J. Allergy Clin. Immunol. 112:653.
2. Barreda, D.R. et al. (2004) Dev. Comp. Immunol. 28:509.
3. Eksioglu, E.A. et al. (2007) Exp. Hematol. 35:1163.
4. Cao, Y. (2007) J. Clin. Invest. 117:2362.
5. Fleetwood, A.J. et al. (2005) Crit. Rev. Immunol. 25:405.
6. Heuser, M. et al. (2007) Semin. Hematol. 44:148.
7. Hege, K.M. et al. (2006) Int. Rev. Immunol. 25:321.
8. Kaushansky, K. et al. (1992) Biochemistry 31:1881.
9. Diederichs, K. et al. (1991) Science 254:1779.
10. Gough, N.M. et al. (1984) Nature 309:763.
11. Onetto-Pothier, N. et al. (1990) Blood 75:59.
12. Hayashida, K. et al. (1990) Proc. Natl. Acad. Sci. 87:9655.
13. Pelley, J.L. et al. (2007) Exp. Hematol. 35:1483.

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