gibco
by life technologies

Recombinant Mouse Granulocyte Macrophage-Colony Stimulating Factor (GM–CSF)

Publication Number MAN0003599 **Revision Date** 03 May 2011

Catalog Number:	PMC2014	PMC2015	PMC2016	PMC2011	PMC2013
Quantity:	2 µg	10 µg	25 µg	100 µg	1 mg

Lot Number:	See product label.
Molecular Weight:	14 kDa
Purity:	>95% as determined by SDS-PAGE analysis.
Biological Activity:	ED_{50} range = 0.001 to 0.01 ng/mL, determined by the dose dependent proliferation of MC/9 cells. Optimal concentration for individual application should be determined by a dose response assay.
Formulation:	Lyophilized, carrier free.
Sterility:	Filtered through a 0.22 micron sterile filter.
Endotoxin:	<0.1 ng/µg
Production:	Recombinant mouse GM–CSF is produced in *E. coli* and purified via sequential chromatography.
Reconstitution Recommendation:	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute lyophilized recombinant mouse GM–CSF in sterile, distilled water to a concentration of 0.1–1.0 mg/mL. Further dilutions should be made in low endotoxin medium or a buffered solution containing a carrier protein such as heat inactivated FCS or tissue culture grade BSA.
Suggested Working Dilutions:	The optimal concentration should be determined for each specific application.
Storage:	Store lyophilized recombinant mouse GM-CSF at 2°C to 8°C, preferably desiccated. Upon reconstitution, apportion into working aliquots and store at ≤ –20°C. Avoid repeated freeze/thaw cycles.
Expiration Date:	Expires one year from date of receipt when stored as instructed.
References:	Beissert, S., J. Hosoi, S. Grabbe, A. Asahina, and R.D. Granstein (1995) IL-10 inhibits tumor antigen presentation by epidermal antigen-presenting cells. J. Immunol. 154(3):1280–1286. Bradney, C.P., G.D. Sempowski, H.X. Liao, B.F. Haynes, and H.F. Staats (2002) Cytokines as adjuvants for the induction of anti-human immunodeficiency virus peptide immunoglobulin G (IgG) and IgA antibodies in serum and mucosal secretions after nasal immunization. J. Virol. 76(2):517–524. Grabbe, S., M. Steinert, K. Mahnke, A. Schwartz, T.A. Luger, and T. Schwarz (1996) Dissection of antigenic and irritative effects of epicutaneously applied haptens in mice. Evidence that not the antigenic component but nonspecific proinflammatory effects of haptens determine the concentration-dependent elicitation of allergic contact dermatitis. J. Clin. Invest. 98(5):1158–1164. Jones, M., M. Komatsu, and R.B. Levy (2000) Cytotoxically impaired transplant recipients can efficiently resist major histocompatibility complex-matched bone marrow allografts. Biol. Blood Marrow Transplantation 6 (4A):456–464. Mackey, M.F., Z. Wang, K. Eichelberg and R.N. Germain (2003) Distinct contributions of different CD40 TRAF binding sites to CD154-induced dendritic cell maturation and IL-12 secretion. Eur. J. Immunol. 33(3):779–789. Rubinson, D.A., C.P. Dillon, A.V. Kwiatkowski, C. Sievers, L.L. Yang, J. Kopinja, M.D. Zhang, M. T. McManus, F. B. Gertler, M. L. Scott and L. Van Parijs (2003) A lentivirus-based system to functionally silence genes in primary mammalian cells, stem cells and transgenic mice by RNA interference. Nature Genetics 33(3):401–406. Stumbles, P.A., J.A. Thomas, C.L. Pimm, P.T. Lee, T.J. Venaille, S. Proksch, and P.G. Holt (1998) Resting respiratory tract dendritic cells preferentially stimulate T helper cell type 2 (Th2) responses and require obligatory cytokine signals for induction of Th1 immunity. J. Exp. Med. 188(11):2019–2031.

Explanation of Symbols

The symbols present on the product label are explained below:

Symbol	Description
REF	Catalog Number
RUO	Research Use Only
	Use by
	Manufacturer
[–]	Without, does not contain
	Protect from light
	Directs the user to consult instructions for use (IFU), accompanying the product.

Symbol	Description
LOT	Batch code
IVD	In vitro diagnostic medical device
	Temperature limitation
EC REP	European Community authorized representative
[+]	With, contains
⚠	Consult accompanying documents

Limited Use Label License: Research Use Only

The purchase of this product conveys to the purchaser the limited, non-transferable right to use the purchased amount of the product only to perform internal research for the sole benefit of the purchaser. No right to resell this product or any of its components is conveyed expressly, by implication, or by estoppel. This product is for internal research purposes only and is not for use in commercial applications of any kind, including, without limitation, quality control and commercial services such as reporting the results of purchaser's activities for a fee or other form of consideration. For information on obtaining additional rights, please contact outlicensing@lifetech.com or Out Licensing, Life Technologies, 5791 Van Allen Way, Carlsbad, California 92008.

For Research Use Only. Caution: Not for human or animal therapeutic or diagnostic use.

Manufactured under ISO 13485 Quality Standard

Manufacturing site: 7335 Executive Way | Frederick, MD 21704 | Toll Free in USA 800.955.6288

.

For support visit www.lifetechnologies.com/support or email techsupport@lifetech.com

www.lifetechnologies.com

life technologies™