gibco
by life technologies

Recombinant Mouse Interleukin–2 (IL–2)

Publication Number MAN0004296 **Rev.** 1.00

Catalog Number:	PMC0024	PMC0025	PMC0021	PMC0023
Quantity:	10 µg	25 µg	100 µg	1 mg

Lot Number:	See product label.
Molecular Weight:	~17 kDa
Purity:	>95% as determined by SDS–PAGE analysis.
Amino Acid Sequence:	APTSSSTSSS TAEAQQQQQQ QQQQQQHLEQ LLMDLQELLS RMENYRNLKL PRMLTFKFYL PKQATELKDL QCLEDELGPL RHVLDLTESK SFQLEDAENF ISNIRVTVVK LKGSDNTFEC QFDDESATVV DFLRRWIAFC QSIISTSPQ
Biological Activity:	ED_{50} range = 0.1–0.4 ng/mL (Specific Activity: 1.0×10^7–2.5×10^6 units/mg), determined by the dose dependent proliferation of mouse CTLL–2 cells. The optimal concentration for each specific application should be determined by an initial dose-response assay.
Formulation:	Lyophilized, carrier free.
Sterility:	Filtered prior to lyophilization through a 0.22 micron sterile filter.
Endotoxin:	<0.1 ng/µg
Production:	Recombinant mouse IL–2 is produced in *E. coli* and purified via sequential chromatography.
Reconstitution Recommendation:	We recommend that the vial be briefly centrifuged prior to opening to bring the contents to the bottom. Lyophilized mouse IL–2 should be reconstituted in 100 mM acetic acid to a concentration of 0.1–1.0 mg/mL to regain full activity. Stock solutions should be apportioned into working aliquots and stored at ≤ –20°C. Further dilutions should be made in low endotoxin medium or buffered solution with FBS or tissue culture grade BSA.
Suggested Working Dilutions:	The optimal concentration should be determined for each specific application.
Storage:	Lyophilized mouse IL–2 should be stored at 2°C to 8°C, preferably desiccated. Store reconstituted mouse IL–2 at ≤ –20°C (not in a frost-free freezer). Keep freeze-thaw cycles to a minimum.
Expiration Date:	Expires one year from date of receipt when stored as instructed.
References:	Gillis, S., M.M. Ferm, W. Ou, and K.A. Smith (1978) T cell growth factor: parameters of production and a quantitative microassay for activity. J. Immunol. 120(6):2027–2032. Grabbe, S., R.S. Bhardwaj, K. Mahnke, M.M. Simon, T. Schwarz, and T.A. Luger (1996) Alpha-melanocyte-stimulating hormone induces hapten-specific tolerance in mice. J. Immunol. 156(2):473–478. Hornell, T.M.C., S.M. Martin, N.B. Myers, and J.M. Connolly (2001) Peptide length variants p2Ca and QL9 present distinct conformations to L^d-specific T cells. J. Immunol. 167(8):4207–4214. Kashima, N., C. Nishi-Takoaka, T. Fujita, S. Taki, G. Yamada, J. Hamuro, and T. Taniguchi (1985) Unique structure of murine interleukin–2 as deduced from cloned cDNAs. Nature 313(6001):402–404. Kelly, E., A. Won, Y. Refaeli, and L. Van Parijs (2002) IL–2 and related cytokines can promote T cell survival by activating AKT. J. Immunol. 168(2):597–603. Kuklin, N.A., M. Daheshia, S. Chun, and B.T. Rouse (1998) Immunomodulation by mucosal gene transfer using TGF-beta DNA. J. Clin. Invest. 102(2):438–444. Manickan, E., R.J. Rouse, Z. Yu, W.S. Wire, and B.T. Rouse (1995) Genetic immunization against herpes simplex virus. Protection is mediated by CD4+ T lymphocytes. J. Immunol. 155(1):259–265. McManus, M.T., B.B. Haines, C.P. Dillon, C.E. Whitehurst, L. Van Parijs, J.Z. Chen, and P.A. Sharp (2002) Small interfering RNA-mediated gene silencing in T lymphocytes. J. Immunol. 169(10):5754–5760. 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.

References, Continued:	Smith, K.A. (1988) Interleukin–2: inception, impact, and implications. Science 240(4856):1169–1176. Staeva–Vieira, T.P. and L.P. Freedman (2002) 1,25–dihydroxyvitamin D–3 inhibits IFN–gamma and IL–4 levels during in vitro polarization of primary murine CD4(+) T cells. J. Immunol. 168(3):1181–1189. Tschetter, J.R., E. Mozes, and G.M. Shearer (2000) Progression from acute to chronic disease in a murine parent–into–F–1 model of graft-versus-host disease. J. Immunol. 165(10):5987–5994. Yokota, T., N. Arai, F. Lee, D. Rennick, T. Mosmann, and K. Arai (1985) Use of a cDNA expression vector for isolation of mouse interleukin 2 cDNA clones: expression of T–cell growth-factor activity after transfection of monkey cells. Proc. Nat'l. Acad. Sci. U.S.A. 82(1):68–72.

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

Revision Date 17 May 2011

life technologies™