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Recombinant Human Interleukin–7 (IL–7)

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Catalog Number:	PHC0075	PHC0076	PHC0071	PHC0073
Quantity:	5 µg	25 µg	100 µg	1 mg

Lot Number:	See product label.
Molecular Weight:	17.5 kDa
Purity:	>95% pure by SDS–PAGE
Amino Acid Sequence:	DCDIEGKDGK QYESVLMVSI DQLLDSMKEI GSNCLNNEFN FFKRHICDAN KEGMFLFRAA RKLRQFLKMN STGDFDLHLL KVSEGTTILL NCTGQVKGRK PAALGEAQPT KSLEENKSLK EQKKLNDLCF LKRLLQEIKT CWNKILMGTK EH
Biological Activity:	ED_{50} range = 0.2–1 ng/mL (Specific Activity: 5.0×10^6–1.0×10^6 units/mg), determined by the dose dependent proliferation of human PBMCs. Optimal concentration for individual application should be determined by a dose response assay.
Formulation:	Lyophilized, carrier-free
Sterility:	Filtered prior to lyophilization through 0.22 micron sterile filter.
Endotoxin:	<0.1 ng/µg
Production:	Recombinant human IL–7 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 human IL–7 should be reconstituted in sterile, distilled water to 0.1–1.0 mg/mL to regain full activity. These 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 human IL-7 should be stored at 2°C to 8°C, preferably desiccated. Store reconstituted human IL-7 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:	Ayyoub, M., S. Stevanovic, U. Sahin, P. Guillaume, C. Servis, D. Rimoldi, D. Valmori, P. Romero, J.C. Cerottini, H.G. Rammensee, M. Pfreundschuh, D. Speiser, and F. Levy (2002) Proteasome-assisted identification of a SSX-2-derived epitope recognized by tumor-reactive CTL infiltrating metastatic melanoma. J. Immunol. 168(4):1717–1722. Butterfield, L.H., S.M. Jilani, N.G. Chakraborty, L.A. Bui, A. Ribas, V.B. Dissette, R. Lau, S.C. Gamradt, J.A. Glaspy, W.H. McBride, B. Mukherji and J.S. Economou (1998) Generation of melanoma-specific cytotoxic T lymphocytes by dendritic cells transduced with a MART-1 adenovirus. J. Immunol. 161(10):5607–5613. Cosenza, L., E. Sweeny, and J.R. Murphy (1997) Disulfide bond assignment in human interleukin-7 by matrix–assisted laser desorption/ionization mass spectroscopy and site-directed cysteine to serine mutational analysis. J. Biol. Chem. 272(52):32995–33000. Frost, P.A., L.H. Butterfield, V.B. Dissette, J.S. Economou, and B. Bonavida (2001) Immunosensitization of melanoma tumor cells to non-MHC Fas-mediated killing by MART-1-specific CTL cultures. J. Immunol. 166(5):3564–3573. Le, P.T., K.L. Adams, N. Zaya, H.L. Mathews, W.J. Storkus, and T.M. Ellis (2001) Human thymic epithelial cells inhibit IL-15-and IL-2-driven differentiation of NK cells from the early human thymic progenitors. J. Immunol. 166(4):2194–2201. Loparev, V., J. Parsons, J. Knight, J. Fanelli Panus, C. Ray, R. Buller, D. Pickup, and J. Esposito (1998) A third distinct tumor necrosis factor receptor of orthopoxviruses. Proc. Nat'l. Acad. Sci. 95(7):3786–3791. Roth, M.D., Q.W. Cheng, A. Harui, S.K. Basak, K. Mitani, T.A. Low, and S.M. Kiertscher (2002) Helper-dependent adenoviral vectors efficiently express transgenes in human dendritic cells but still stimulate antiviral immune responses. J. Immunol. 169(8):4651–4656.

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

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