

Cell Therapy Systems Recombinant Human Interleukin-7 CTS™ (IL-7)

PRODUCT ANALYSIS SHEET

Catalog Number:	CTP0071	СТР0073
Quantity:	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 to 1 ng/mL (Specific Activity: 5.0 x 10 ⁶ to 1.0 x 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 to 1.0 mg/mL to regain full activity. These stock solutions should be apportioned into working aliquots and stored at $\leq -20^{\circ}$ C. Further dilutions should be made in low endotoxin medium or buffered solution with FBS or tissue culture grade BSA. It is recommended that all culture media containing supplements, such as growth factor, be sterile filtered prior to use for cell, gene, or tissue-based applications to minimize risk of contamination.	
Suggested Working Dilutions:	The optimal concentration should be determined for each specific application.	
Storage:	Lyophilized human IL-7 should be stored at 2 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.	

For Research Use or Non-Commercial Manufacturing of Cell Based Products for Clinical Research. CAUTION: Not intended for direct administration into humans or animals www.invitrogen.com

Manufactured under ISO 13485 Quality Standard

Invitrogen Corporation • 542 Flynn Rd • Camarillo • CA 93012 • Tel: 800.955.6288 For technical support or support related to CTSTM products, <u>www.invitrogen.com/celltherapysupport</u>

PICTS-Hu IL-7

(Rev 07/10) DCC-10-1460

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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					
Symbol	Description	Symbol	Description		
REF	Catalogue Number	LOT	Batch code		
RUO	Research Use Only	IVD	In vitro diagnostic medical device		
X	Use by	ł	Temperature limitation		
***	Manufacturer	EC REP	European Community authorised representative		
[-]	Without, does not contain	[+]	With, contains		
from Light	Protect from light	\triangle	Consult accompanying documents		
\prod_{i}	Directs the user to consult instructions for use (IFU), accompanying the product.				

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