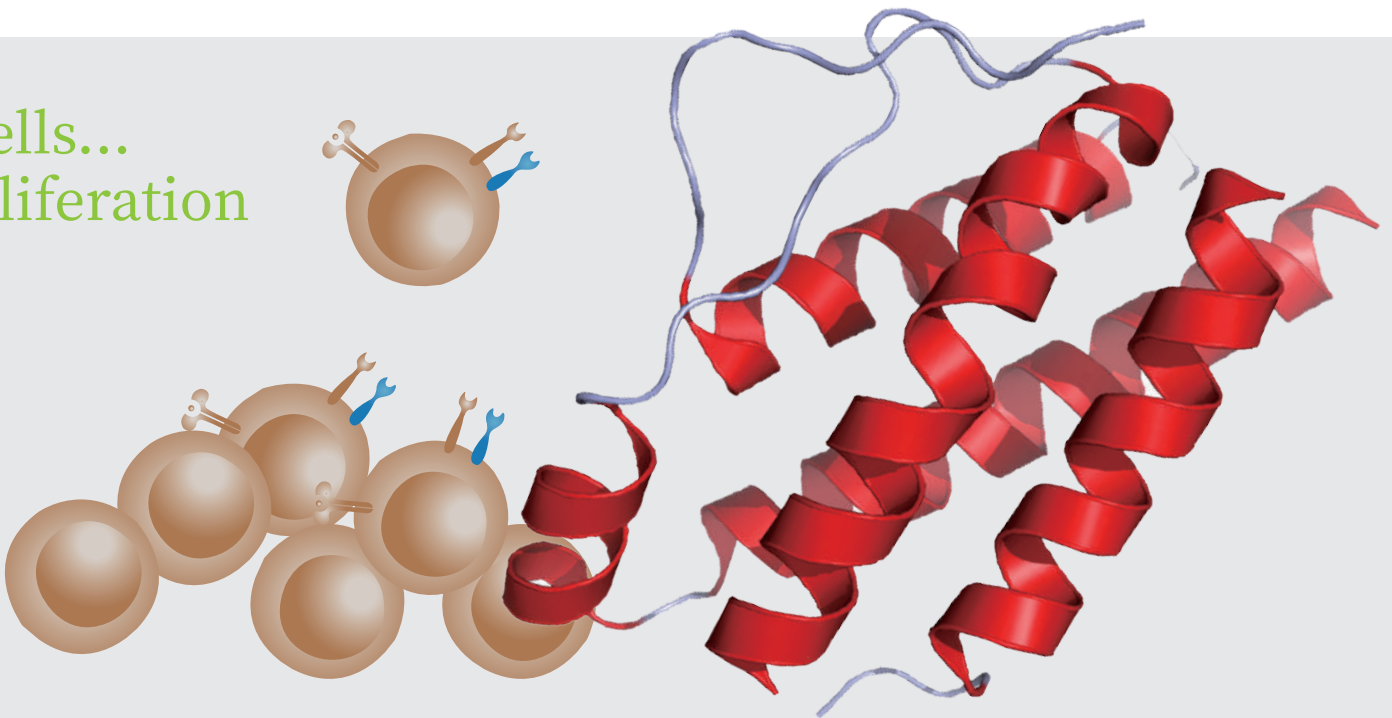


Human **IL-2 GMP** for Cell Therapy

T cells...
proliferation



- **차질 없이 확실한 공급안정성**
- Cell Therapy 연구에 사용할 수 있도록 USP Chapter <1043>, USP Chapter <92> 준수
 - USP Chapter <1043>: Ancillary Materials for Cell, Gene, and Tissue-Engineered Products
 - USP Chapter <92>: Growth Factors and Cytokines Used in Cell Therapy Manufacturing
- ISO 9001, ISO 13485

IL-2 Specificity

SPECIFICATIONS

SDS-PAGE	13 kDa, reducing conditions
Activity	Measured in a cell proliferation assay using CTLL-2 mouse cytotoxic T cells. Gearing, A.J.H. and C.B. Bird (1987) in Lymphokines and Interferons, A Practical Approach. Clemens, M.J.et al. (eds): IRL Press. 295. The ED ₅₀ for this effect is 0.05-0.25 ng/mL. The specific activity of recombinant human IL-2 is approximately 2.1 x 10 ⁴ IU/μg, which is calibrated against recombinant human IL-2 WHO International Standard (NIBSC code: 86/500).
Endotoxin Level	<0.01 EU per 1 μg of the protein by the LAL method.
Purity	>97%, by SDS-PAGE with silver staining, under reducing conditions.
Mass Spectrometry	Intact mass analysis of recombinant human IL-2 confirms the predicted molecular mass of 15549 Da.
Host Cell Protein	<0.5 ng per μg of protein when tested by ELISA.
Mycoplasma	Negative when tested in a ribosomal RNA hybridization assay.
Host Cell DNA	<0.0015 ng per μg of protein when tested by PCR.
Formulation	Lyophilized from a 0.2 μm filtered solution in Acetonitrile and TFA. See Certificate of Analysis for details.

GMP products

GMP Proteins

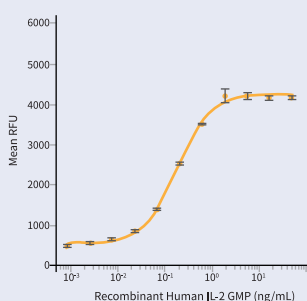
Activin A	IGF-I*	Noggin	Sonic Hedgehog*
BDNF	IL-1α	NRG1-b1	TGF-β1**
BMP-2	IL-1β*	NT-3	TGF-β3**
BMP-4	IL-2*	NT-4	TNF-α*
BMP-7	IL-3*	PDGF-BB*	VEGF**
EGF*	IL-4*	Periostin	Wnt-3a
Dkk-1	IL-6*	SCF/c-kit Ligand*	
FGF basic*	IL-7*		
Fibronectin**	IL-11**		
Flt-3 Ligand**	IL-12		

GMP Small Molecules

		Name	Description
GDF-8/Myostatin	IL-15*	DAPT	γ-Secretase Inhibitor; NOTCH Pathway Inhibitor
GDF-11	IL-17E*	SB431542	TGF-β1, ALK4 and ALK7 Inhibitor
GDNF	IL-21	Y-27632	Selective ROCK Inhibitor
GM-CSF*	KGF/FGF-7	CHIR 99021	GSK-3 Inhibitor, WNT Pathway Activator
HGF	LR3 IGF-I*	XAV939	Tankyrase Inhibitor, WNT Signaling Inhibitor
IFN-γ*	M-CSF*		

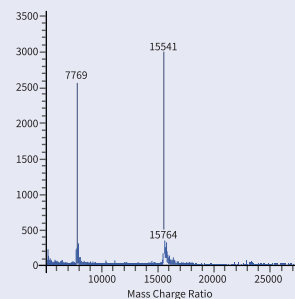
IL-2 QC Data

Bioactivity



GMP-grade Recombinant Human IL-2 (Catalog # 202-GMP) stimulates cell proliferation of the CTLL-2 mouse cytotoxic T cell line. The ED₅₀ for this effect is 0.05-0.25 ng/mL.

Mass Spectrometry



MALDI-TOF analysis of GMP-grade Recombinant Human IL-2 (Catalog # the calculated molecular mass, 15549 Da. The minor peak at 15764 Da is a matrix-associated artifact of the MALDI-TOF.