Recombinant human IL-7 protein

Catalog Number: ATGP4159

PRODUCT INFORMATION

Expression system
Baculovirus

Domain
26-177aa

UniProt No.
P13232

NCBI Accession No.
NP_000871.1

Alternative Names
Interleukin-7 isoform 1, IL7, IL-7, Il7, Interleukin-7

PRODUCT SPECIFICATION

Molecular Weight
18.4 kDa (161aa)

Concentration
0.5mg/ml (determined by absorbance at 280nm)

Formulation
Liquid in. Phosphate-Buffered Saline (pH 7.4) containing 10% glycerol

Purity
> 90% by SDS-PAGE

Endotoxin level
< 1 EU per 1ug of protein (determined by LAL method)

Biological Activity
Measured in a cell proliferation assay using PHA-activated human Peripheral Blood Mononuclear Cells(PBMC). The ED50 range ≤ 8 ng/ml.

Tag
His-Tag

Application
SDS-PAGE, Bioactivity

Storage Condition
Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

BACKGROUND

Recombinant human IL-7 protein

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Description

IL7, as known as interleukin-7 isoform 1, is a cytokine of the hemopoietin family that plays important roles in lymphocyte differentiation, proliferation, and survival. This protein is a hematopoietic growth factor secreted by stromal cells in the bone marrow and thymus. It is also produced by keratinocytes, dendritic cells, hepatocytes, neurons, and epithelial cells but is not produced by normal lymphocytes. It stimulates the proliferation of lymphoid progenitors and is important for proliferation during certain stages of B-cell maturation. IL7 and HGF form a heterodimer that functions as a pre-pro-B cell growth-stimulating factor. It can be produced locally by intestinal epithelial and epithelial goblet cells and may serve as a regulatory factor for intestinal mucosal lymphocytes. Recombinant human IL7, fused to His-tag at C-terminus, was expressed in insect cell and purified by using conventional chromatography techniques.

Amino acid Sequence

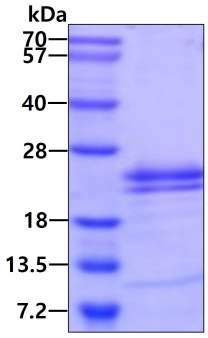
<ADP>DCDIEGK DGKQYESVLM VSIDQLLDSM KEIGSNCLNN EFNFFKRHIC DANKEGMFLF RAARKLRQFL KMNSTGDFDL HLLKVSEGTT ILLNCTGQVK GRKPAALGEA QPTKSLEENK SLKEQKKLND LCFLKRLLQE IKTCWNKILM GTKEH<HHHHH H>

General References

Iolyeva M., et al. (2013) Blood 122:2271-2281.
Younas M., et al. (2013) J. Immunol. 191:3161-3168.

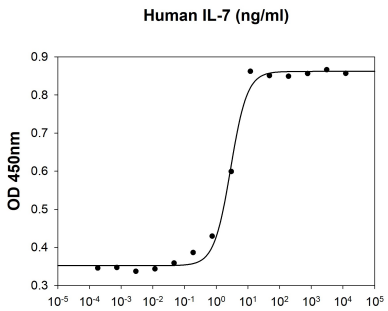
DATA

SDS-PAGE



3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain

Biological Activity



Human IL-7 stimulates cell proliferation of the PHA-activated human Peripheral Blood Mononuclear Cells(PBMC). The ED50 range ≤ 8 ng/ml.