

Recombinant Human Interleukin-7/IL-7 Protein (His Tag)



Catalog Number:PKSH032654

Note: Centrifuge before opening to ensure complete recovery of vial contents.

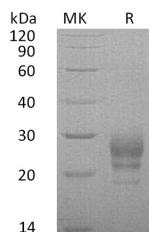
Description

Synonyms	Interleukin-7;IL-7;IL7
Species	Human
Expression Host	HEK293 Cells
Sequence	Asp26-His177
Accession	P13232
Calculated Molecular Weight	18.4 kDa
Observed molecular weight	19-30 kDa
Tag	C-His
Bioactivity	Measured in a cell proliferation assay using PHA-activated human peripheral blood lymphocytes (PBL). The ED50 for this effect is 50-300 pg/ml.

Properties

Purity	> 95 % as determined by reducing SDS-PAGE.
Endotoxin	< 0.01 EU per µg of the protein as determined by the LAL method.
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from a 0.2 µm filtered solution of 20mM PB, 150mM NaCl, pH 7.4. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization.
Reconstitution	Please refer to the specific buffer information in the printed manual.

Data



> 95 % as determined by reducing SDS-PAGE.

Background

Human Interleukin 7 (IL-7) is a potent lymphoid cell growth factor stimulating the proliferation of lymphoid progenitors. IL7 can associate with the hepatocyte growth factor (HGF) to form a hybrid cytokine that functions as a pre-pro-B cell growth-stimulating factor. Human IL7 cDNA encodes a 177 amino acid precursor protein containing a 25 amino acid signal peptide and a 152 amino acid mature protein. Human and mouse IL7 share 65% sequence identity in the mature region and both exhibit cross-species activity. IL-7 signals via IL-7 receptor (IL7R) activating multiple pathways including Jak/STAT and PI3K/AKT; which regulate lymphocyte survival; glucose uptake; proliferation; and differentiation. IL-7 is

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also associated with cytoplasmic IL2-R gamma for signal transduction.

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