

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

Catalog Number: PKSH032654

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

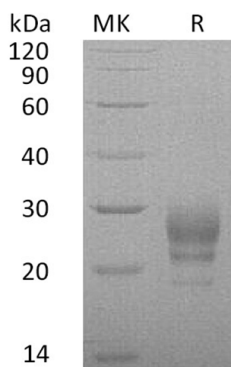
### Description

<b>Species</b>	Human
<b>Source</b>	HEK293 Cells-derived Human Interleukin-7;IL-7 protein Asp26-His177, with an C-terminal His
<b>Calculated MW</b>	18.4 kDa
<b>Observed MW</b>	19-30 kDa
<b>Accession</b>	P13232
<b>Bio-activity</b>	Measured in a cell proliferation assay using PHA-activated human peripheral blood lymphocytes (PBL). The ED <sub>50</sub> for this effect is 50-300 pg/ml.

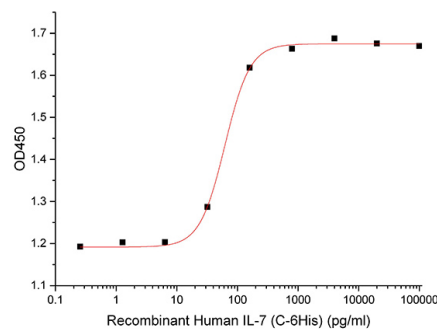
### Properties

<b>Purity</b>	> 95 % as determined by reducing SDS-PAGE.
<b>Endotoxin</b>	< 0.01 EU per µg of the protein as determined by the LAL method.
<b>Storage</b>	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.
<b>Shipping</b>	This product is provided as lyophilized powder which is shipped with ice packs.
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution of 20mM PB, 150mM NaCl, pH 7.4. Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.
	Please refer to the specific buffer information in the printed manual.
<b>Reconstitution</b>	Please refer to the printed manual for detailed information.

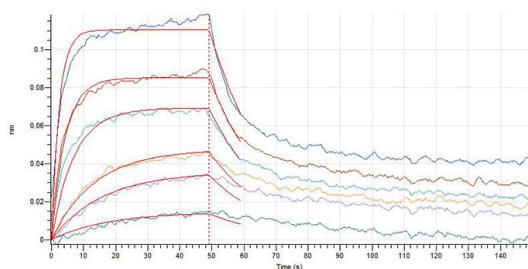
### Data



> 95 % as determined by reducing SDS-PAGE.



Measured in a cell proliferation assay using PHA-activated human peripheral blood lymphocytes (PBL). The ED<sub>50</sub> for this effect is 50-300 pg/ml.



Loaded Mouse IL-7RA-Fc(PKSM041242) on Protein A Biosensor, can bind Human IL-7-His(PKSH032654) with an affinity constant of 29.0 nM as determined in BLI assay.

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