

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

Catalog Number: PKSH032654

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

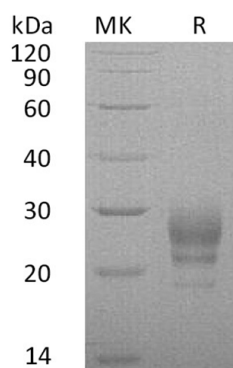
Description

Species	Human
Source	HEK293 Cells-derived Human Interleukin-7;IL-7 protein Asp26-His 177, with an C-terminal His
Calculated MW	18.4 kDa
Observed MW	19-30 kDa
Accession	P13232
Bio-activity	Measured in a cell proliferation assay using PHA-activated human peripheral blood lymphocytes (PBL). The ED ₅₀ for this effect is 50-300 pg/ml.

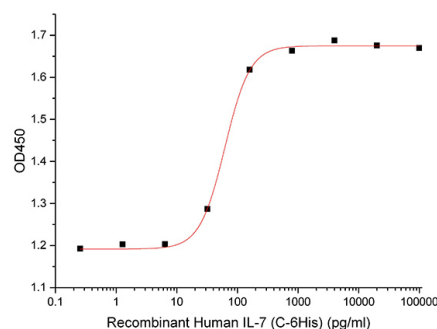
Properties

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% Tween 80 are added as protectants before lyophilization.
Reconstitution	Please refer to the specific buffer information in the printed manual.

Data

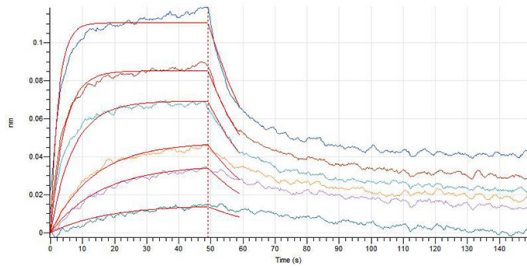


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For Research Use Only



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.