

Product datasheet for **TP723791**

IL7 (NM_000880) Human Recombinant Protein

Product data:

Product Type:	Recombinant Proteins
Description:	Purified recombinant protein of Human interleukin 7 (IL7), transcript variant 1
Species:	Human
Expression Host:	HEK293
Expression cDNA Clone or AA Sequence:	Human IL-7, the region of Asp26-His177, from gene Accession# NM_000880.3
Tag:	Tag Free
Predicted MW:	18.8 kDa
Concentration:	lot specific
Purity:	>98%, as determined by Coomassie stained SDS-PAGE.
Buffer:	1 x PBS
Bioactivity:	The ED50 is 1 - 5 ng/ml, corresponding to a specific activity of 0.20 - 1.0 x 10 ⁶ units/mg, determined by PHA-activated human PBL proliferation induced by human IL-7 in a dose dependent manner.
Endotoxin:	Less than 0.01 ng per µg protein as determined by the LAL method
Storage:	Store at -80°C.
Stability:	Unopened vial can be stored between 2°C and 8°C for up to 2 weeks, at -20°C for up to 6 months, or at -70°C or below until the expiration date. Aliquots can be stored between 2°C and 8°C for up to one week and stored at -20°C or colder for up to 3 months. Avoid repeated freeze/thaw cycles.
RefSeq:	<u>NP_000871</u>
Locus ID:	3574
UniProt ID:	<u>P13232</u>
RefSeq Size:	2089
Cytogenetics:	8q21.13
RefSeq ORF:	531
Synonyms:	IL-7



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Summary:

The protein encoded by this gene is a cytokine important for B and T cell development. This cytokine and the hepatocyte growth factor (HGF) form a heterodimer that functions as a pre-pro-B cell growth-stimulating factor. IL7 is found to be a cofactor for V(D)J rearrangement of the T cell receptor beta (TCRB) during early T cell development. This cytokine can be produced locally by intestinal epithelial and epithelial goblet cells, and may serve as a regulatory factor for intestinal mucosal lymphocytes. IL7 plays an essential role in lymphoid cell survival, and in the maintenance of naive and memory T cells. Alternative splicing results in multiple transcript variants encoding distinct isoforms. Additional splice variants have been described but their presence in normal tissues has not been confirmed. Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection can be a potent inducer of proinflammatory cytokines and chemokines which may defend against the infection, but may also mediate destructive lung injury. Elevated serum IL7 levels, together with several other circulating cytokines and chemokines, has been found to be associated with the severity of Coronavirus Disease 19 (COVID-19). [provided by RefSeq, Jul 2020]

Protein Families:

Druggable Genome, Secreted Protein

Protein Pathways:

Cytokine-cytokine receptor interaction, Hematopoietic cell lineage, Jak-STAT signaling pathway