

Product datasheet for **TP720815**

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:	D26-H177
Tag:	C-6His
Predicted MW:	18.4 kDa
Concentration:	lot specific
Purity:	>95% as determined by SDS-PAGE and Coomassie blue staining
Buffer:	Lyophilized from a 0.2 um filtered solution of PBS, pH7.4
Endotoxin:	Endotoxin level is < 0.1 ng/μg of protein (< 1 EU/μg)
Reconstitution Method:	Always centrifuge tubes before opening. Do not mix by vortex or pipetting. Dissolve the lyophilized protein in ddH ₂ O. It is not recommended to reconstitute a concentration less than 100 μg/ml. Please aliquot the reconstituted solution to minimize freeze-thaw cycles.
Storage:	Lyophilized protein should be stored at < -20°C, though stable at room temperature for 3 weeks. Reconstituted protein solution can be stored at 4-7°C for 2-5 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
Stability:	Stable for at least 6 months from date of receipt under proper storage and handling conditions.
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