

Recombinant Human Interleukin-11

Human, Recombinant (IL11)

Expressed in *P. Pichia*

Cat. No. CRP0814

Lot. No. (See product label)

PRODUCT INFORMATION

Description: The protein is produced in *P. Pichia* by recombinant DNA technology. The protein has a molecular mass of approximately 19,000 Daltons and is non-glycosylated. The protein is 177 amino acids in length and differs from the 178 amino acid length of native IL-11 only in lacking the amino-terminal proline residue.

Amino-Acid Sequence: 177 aa (The sequence of the first fifteen N-terminal amino acids was determined and was found to be Gly-Pro-Pro-Pro-Gly-Pro-Pro-Arg-Val-Ser-Pro-Asp-Pro-Arg-Ala.), non-glycosylated

M. W. : 19,200 Da

Recombinant: Expressed in *P. Pichia*

Purity: >95% as determined by SDS-PAGE and SEC-HPLC.

Formulation: The protein was lyophilized from a concentrated (1mg/ml) solution with no additives.

Specific Activity: The ED50 as determined by the dose-dependant stimulation of the proliferation of murine 7TD1 was found to be less than 0.2ng/ml, corresponding to a Specific Activity of 8.0×10^6 IU/ mg.

Endotoxin: Less than 2ng/mg (2IEU/mg) determined by LAL test.

Reconstitution: It is recommended to reconstitute the lyophilized rHuIL-11 in sterile 18MΩ-cm H₂O not less than 100µg/ml, which can then be further diluted to other aqueous solutions.

Storage: Lyophilized rHuIL-11 although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution rHuIL-11 should be stored at 4°C between 2-7 days and for future use below -18°C. For long-term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Aliquot to avoid repeated freeze-thaw cycles.

GENE INFORMATION

Gene Name: [IL11](#)

Synonyms: AGIF; IL-11; Adipogenesis inhibitory factor, Oprelvekin, Interleukin-11; IL11; interleukin 11

mRNA Refseq: [NM_000641](#)

Protein Refseq: [NP_000632](#)

MIM: [147681](#)

GeneID: [3589](#)

UniProt ID: P20809

Chromosome Location: 19q13.3-q13.4

Summary: The protein encoded by this gene is a member of the gp130 family of cytokines. These cytokines drive the assembly of multisubunit receptor complexes, all of which contain at least one molecule of the transmembrane signaling receptor IL6ST (gp130). This cytokine is shown to stimulate the T-cell-dependent development of immunoglobulin-producing B cells. It is also found to support the proliferation of hematopoietic stem cells and megakaryocyte progenitor cells.

Pathway: Cytokine-cytokine receptor interaction ; Hematopoietic cell lineage ; Jak-STAT signaling pathway

Function: cytokine activity, interleukin-11 receptor binding activity

REFERENCES

1. Paul SR, et al. Molecular cloning of a cDNA encoding interleukin 11, a stromal cell-derived lymphopoietic and hematopoietic cytokine. Proc. Natl. Acad. Sci. U.S.A. 1990; 87 (19): 7512–7516
2. Kawashima I, et al. Molecular cloning of cDNA encoding adipogenesis inhibitory factor and identity with interleukin-11. FEBS Lett. 1991; 283 (2): 199–202
3. McKinley D, et al. "Genomic sequence and chromosomal location of human interleukin-11 gene (IL11)". Genomics. 1992; 13 (3): 814–819

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