Recombinant Human Interleukin 11

Cat. No. IL11-218H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human interleukin 11 DNA sequence encoding the mature 173 ammino acid human IL-11 protein sequence was inserted into a suitable expression vector and was expressed in*Sf21 insect cell*susing a baculovirus expression system.
Species	Human
Source	Sf21 Cells
Description	Interleukin 11 (IL-11) is a multifunctional cytokine isolated from bone marrow-derived stromal cells. It is a key regulator of multiple events in hemtaopoiesis, most notably the stimulation of megakaryocyte maturation. It is also known under the names Adipogenesis inhibitory factor (AGIF) and Oprelvekin. IL-11 improves platelet recovery after chemotherapy-induced thrombocytopenia, induces acute phase proteins, modulates antigen-antibody responses, participate in the regulation of bone cell proliferation and differentiation and could be use as a therapeutic for osteoporosis. Besides from lymphopoietic/hematopoietic and osteotrophic properties, it has functions in many tissues such as brain, gut and testis.
Molecular Weight	The predicted molecular weight of Recombinant Human IL-11 is Mr 19 kDa. However, the actual molecular weight as observed by migration on SDS Page is Mr 23 kDa.
State Of Matter	Solution.
Formulation	This recombinant protein solution was 0.2 μm filtered and formulated in modified Dulbecco's phosphate buffered saline (1X PBS) pH 7.2 – 7.3 with no calcium,

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	magnesium, or preservatives present. The final protein concentration is 0.25 mg/ml.
Purity	> 97% by SDS Page and analyzed by silver stain.
Endotoxin	< 0.1 ng per 1 μg as determined by the LAL method.
Biological Activity	The biological activity of Human IL-11 was determined by a cell proliferation assay using T11, a subline of the IL-6-dependent murine plasmacytoma cell line T1165.85.2.1 that has been adapted to grow in IL-11. The expected ED50 for this effect is typically 0.06 - 0.24 ng/mL.
Storage And Stability	Working aliquots of this recombinant protein solution are stable for up to twelve months at -20˚C to -70˚C in a manual defrost freezer. Upon thawing, in the presence of a carrier protein, this recombinant protein can be stored at 2˚C - 8˚C for one month without detectable loss of activity. For long-term storage, aliquot and freeze at -20˚C to -70˚C in a manual defrost freezer. Avoid repeated freeze thaw cycles.

GENE INFORMATION

Gene Name	IL11 interleukin 11 [Homo sapiens]
Synonyms	AGIF; IL-11; Adipogenesis inhibitory factor, Oprelvekin, Interleukin-11; IL11; interleukin 11
Gene ID	3589
mRNA Refseq	NM_000641
Protein Refseq	NP_000632

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UniProt ID	P20809
Chromosome Location	19q13.3-q13.4
MIM	147681
Pathway	Cytokine-cytokine receptor interaction; Hematopoietic cell lineage; Jak-STAT signaling pathway
Function	cytokine activity, interleukin-11 receptor binding activity

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