



Recombinant Human Interleukin 11 Catalog Number: SJB01

Strength: 10µg, 50µg

Specifications and Use

Description : Recombinant human IL-11 produced in E.coli is a single, non-glycosylated, polypeptide chain containing 177 amino acids, and having a predicted molecular mass of approximately 19.0kD, but migrates in SDS-PAGE with an apparent molecular mass of 20.8kD.

Source: *E. coli*.

Molecular Mass : Approximately 19.0kD.

Purity: ≥97%, as determined by SDS-PAGE and HPLC method.

Endotoxin Level : ≤1EU/µg, determined by the LAL method.

Biological Activity : Measured in a cell proliferation assay using B9-11, the specific activity shall be not less than 8×10⁶U/mg.

Formulation : Lyophilized from a 0.2µm filtered solution in 10mM Phosphate Buffer.

Reconstitution : It is recommended that sterile ddH₂O containing at least 0.1% human serum albumin or bovine serum albumin be added to the vial to prepare a stock solution of not less than 10µg/ml of the cytokine.

Storage : Lyophilized samples are stable for greater than six months from date of receipt at -20°C to -70°C.

■ Upon reconstitution, this cytokine can be stored under sterile conditions at 2-8°C for one month or at -20°C to -70°C in a **manual defrost freezer** for three months without detectable loss of activity.

■ **Avoid repeated freeze-thaw cycles.**

Human Interleukin 11

Interleukin eleven (IL-11) is a thrombopoietic growth factor that directly stimulates the proliferation of hematopoietic stem cells and megakaryocyte maturation resulting in increased platelet production. IL-11 is a member of a family of human growth factors which includes human growth hormone, granulocyte colony-stimulating factor (G-CSF), and other growth factors.

Recombination human interleukin 11 is produced in E.coli by recombinant DNA technology. The protein has a molecular mass of approximately 19,000 daltons, and is non-glycosylated. The polypeptide 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. This alteration has not resulted in measurable differences in bioactivity either in vitro or in vivo. IL-11 is produced by bone marrow stromal cells and is part of the cytokine family that shares the gp130. Both bone-forming and bone-resorbing cells are potential targets of IL-11.

IL-11 has also been shown to have non-hematopoietic activities in animals including the regulation of intestinal epithelium growth (enhanced healing of gastrointestinal lesions), the inhibition of adipogenesis, the induction of acute phase protein synthesis, inhibition of pro-inflammatory cytokine production by macrophages, and the stimulation of osteoclastogenesis and neurogenesis. FOR RESEARCH USE ONLY. NOT FOR HUMAN USE.