Recombinant Human Interleukin 11

Catalog Number	Size
AG116-10	10μg
AG116-50	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 19.0kDa, but migrates in SDS-PAGE with an apparent molecular mass of 20.8kDa.

Source *E. coli.*

Molecular Mass Approximately 19.0kDa.

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 8×10^6 U/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.
The reconstituted samples can be stored under sterile conditions at 2- 8°C for one month or at -20°C to -70°C 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 praline 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-hematopietic 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 osteociastogenesis and neurogenesis.

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