



Recombinant Human Interleukin 11 **rHuIL-11, ultra-low endotoxin**

Catalog number: HZ-6520

Lot: CHI-121407

Specifications and Use

Source	<ul style="list-style-type: none">● <i>Escherichia coli</i>.
Molecular Mass	<ul style="list-style-type: none">● Approximately 19kDa, but migrates in SDS-PAGE with an apparent molecular mass of 23kDa.
Purity	<ul style="list-style-type: none">● > 97%, as determined by SDS-PAGE and HPLC method.
Biological Activity	<ul style="list-style-type: none">● Measured in a cell proliferation assay using B₉-11, the specific activity shall be not less than 8×10⁶U/mg.
Endotoxin Level	<ul style="list-style-type: none">● Less than 1EU/mg of rHuIL-11 as determined by LAL method.
Formulation	<ul style="list-style-type: none">● Lyophilized from a 0.2µm filtered solution in 10mM PBS containing 50mg of human serum albumin per 1mg of cytokine.
Solubility	<ul style="list-style-type: none">● It is recommended to reconstitute the lyophilized rHuIL-11 in sterile ddH₂O containing at least 0.1% human serum albumin or bovine serum albumin to prepare a stock solution of no less than 1mg/ml of the cytokine.
Stability	<ul style="list-style-type: none">● 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.
Usage	<ul style="list-style-type: none">● FOR RESEARCH USE ONLY. NOT FOR HUMAN USE.

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-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.