

## Recombinant Human IL-11

### Information

<b>Gene ID</b>	3589
<b>Accession #</b>	P20809
<b>Alternate Names</b>	Interleukin-11, Adipogenesis inhibitory factor, AGIF, Oprelvekin, IL11.
<b>Source</b>	<i>Escherichia coli</i> .
<b>M.Wt</b>	Approximately 19.1 kDa, a single non-glycosylated polypeptide chain containing 179 amino acids.
<b>AA Sequence</b>	MPGPPPGPPR VSPDPRAELD STVLLTRSL ADTRQLAAQL RDKFPADGDH NLDSLPTLAM SAGALGALQL PGVLTRLRAD LLSYL RHVQW LRRAGGSSLK TLEPELGT LQ ARLDRLRLRL QLLMSRLALP QPPDP PPAPP LAPPSSAWGG IRAAHAILGG LHLLTDWAVR GLLLLKTRL
<b>Appearance</b>	Sterile Filtered White lyophilized (freeze-dried) powder.
<b>Stability &amp; Storage</b>	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. - 12 months from date of receipt, -20 to -70°C as supplied. - 1 month, 2 to 8°C under sterile conditions after reconstitution. - 3 months, -20 to -70°C under sterile conditions after reconstitution.
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered concentrated solution in PBS, pH 7.4.
<b>Reconstitution</b>	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1% BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at ≤ -20°C. Further dilutions should be made in appropriate buffered solutions.
<b>Biological Activity</b>	Fully biologically active when compared to standard. The ED50 as determined by a cell proliferation assay using murine B9-11 cells is less than 1 ng/ml, corresponding to a specific activity of >1.0×10 <sup>6</sup> IU/mg.
<b>Shipping Condition</b>	Gel pack.
<b>Handling</b>	Centrifuge the vial prior to opening.
<b>Usage</b>	For Research Use Only! Not to be used in humans.

### Components and Storage

Components	10 µg	100 µg	500 µg
Recombinant Human IL-11	10 µg	100 µg	500 µg

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## Quality Control

Purity	>95% by SDS-PAGE and HPLC analyses.
Endotoxin	Less than 1 EU/μg of rHuIL-11 as determined by LAL method.

## Description

Interleukin-11 (IL-11) is encoded by the IL11 gene and is a member of IL-6 superfamily, distinguished based on their use of the common co-receptor gp130. It is a multifunctional cytokine first isolated from bone marrow-derived stromal cells. IL-11 receptor activation requires formation of a complex of two IL-11 molecules with two molecules of the ligand-binding IL-11R $\alpha$  subunit and two molecules of the expressed cell signaling  $\beta$  subunit, gp130. The functions of IL-11 are that it directly stimulates the proliferation of hematopoietic stem cells and megakaryocyte progenitor cells, and induces megakaryocyte maturation resulting in increased platelet production.

## Reference

1. McKinley D, Wu Q, Yang-Feng T, et al. 1992. Genomics. 13:814-9.
2. Paul SR, Bennett F, Calvetti JA, et al. 1990. Proc Natl Acad Sci U S A. 87:7512-6.
3. Barton VA, Hall MA, Hudson KR, et al. 2000. J Biol Chem. 275:36197-203.

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**[www.apexbt.com](http://www.apexbt.com)**

7505 Fannin street, Suite 410, Houston, TX 77054.

Tel: +1-832-696-8203 | Fax: +1-832-641-3177 | Email: [info@apexbt.com](mailto:info@apexbt.com)