

## Recombinant Human IL11 protein

**Cat. No.** IL11-123H    **Lot. No.** (See product label)

### SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b> | Recombinant Human IL11 protein was expressed in Escherichia coli.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Source</b>           | E.coli                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>ProteinLength</b>    | 179                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Description</b>      | 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. |
| <b>Form</b>             | Lyophilized from a 0.2 $\mu$ m filtered concentrated solution in PBS, pH 7.4.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Bio-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 $> 1.0 \times 10^6$ IU/mg.                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Molecular Mass</b>   | Approximately 19.1 kDa, a single non-glycosylated polypeptide chain containing 179 amino acids.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

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|                       |                                                                                                                                                                                                                                                                                                                                                                                             |
|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>AA Sequence</b>    | MPGPPPGPPRVSPDPRAELDSTVLLTRSLADTRQLAAQLRDKFPADGDHNLDSLPTLAMSAGALGALQLPGVLTSLRADLLSYLRHVQWLRRAGGSSLKTLEPELGTQLQARLDRLLRRLQLLMSRLALPQPPDPPAPPLAPPSSAWGGIRAAHAILGGLHLTLDWAVRGLLLKTRL                                                                                                                                                                                                           |
| <b>Endotoxin</b>      | Less than 1 EU/g of rHuIL-11 as determined by LAL method.                                                                                                                                                                                                                                                                                                                                   |
| <b>Purity</b>         | >95% by SDS-PAGE and HPLC analysis.                                                                                                                                                                                                                                                                                                                                                         |
| <b>Storage</b>        | Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 12 months from date of receipt, -20 to -70 centigrade as supplied. 1 month, 2 to 8 centigrade under sterile conditions after reconstitution. 3 months, -20 to -70 centigrade under sterile conditions after reconstitution.                                                                                             |
| <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 centigrade. Further dilutions should be made in appropriate buffered solutions. |

## GENE INFORMATION

|                        |                                                                                                       |
|------------------------|-------------------------------------------------------------------------------------------------------|
| <b>Gene Name</b>       | IL11                                                                                                  |
| <b>Official Symbol</b> | IL11                                                                                                  |
| <b>Synonyms</b>        | IL11; interleukin 11; interleukin-11; adipogenesis inhibitory factor; AGIF; IL 11; oprelvekin; IL-11; |
| <b>Gene ID</b>         | 3589                                                                                                  |

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|----------------|---------------------------|
| mRNA Refseq    | <a href="#">NM_000641</a> |
| Protein Refseq | <a href="#">NP_000632</a> |
| MIM            | <a href="#">147681</a>    |
| UniProt ID     | <a href="#">P20809</a>    |

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