



# Interleukin-11 (IL-11), mouse recombinant (rmIL-11)

Catalog No:97248Lot No:XXXXXSource:*E. coli*Synonyms:AGIF, Adipogenesis inhibitory factor, Oprelvekin, IL-11, Interleukin-11, II11

# Background

IL11 is a member of the gp130 family of cytokines. These cytokines drive the assembly of multisubunit receptor complexes, all of which contain at least one molecule of the transmembrane signaling receptor IL6ST (gp130). IL-11 is shown to stimulate the T-cell-dependent development of immunoglobulin-producing B cells. It is also found to support the proliferation of hematopoietic stem cells and megakaryocyte progenitor cells.

### Description

Interleukin-11 mouse recombinant produced in *E. coli* is a single, non-glycosylated polypeptide chain containing 179 amino acids and having a molecular mass of 19.1 kDa. Mouse IL-11 is purified by proprietary chromatographic techniques.

#### **Physical Appearance**

Sterile filtered white lyophilized (freeze-dried) powder.

#### Formulation

The protein was lyophilized from a 0.2 µm filtered concentrated (1 mg/ml) solution in PBS. pH 7.4.

#### Solubility

It is recommended to reconstitute the lyophilized Interleukin-11 in sterile 18 M $\Omega$ -cm H<sub>2</sub>O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

#### Stability

Lyophilized Interleukin-11, although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution IL11 should be stored at 4°C between 2-7 days and for future use below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

#### Purity

Greater than 97.0% as determined by (a) Analysis by RP-HPLC, (b) Analysis by SDS-PAGE.

#### **Amino Acid Sequence**

MPGPPAGSPR VSSDPRADLD SAVLLTRSLL ADTRQLAAQM RDKFPADGDH SLDSLPTLAM SAGTLGSLQL PGVLTRLRVD LMSYLRHVQW LRRAGGPSLK TLEPELGALQ ARLERLLRRL QLLMSRLALP QAAPDQPVIP LGPPASAWGS IRAAHAILGG LHLTLDWAVR GLLLLKTRL

#### Activity

The ED50 as determined by the dose-dependant stimulation of the proliferation of murine T11 was found to be less then 2.0 ng/ml, corresponding to a specific activity of 500,000 IU/mg.

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## Usage

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