

## Recombinant Murine Interleukin-11 (rMuIL-11)

## **ChemWhat Technical Data Sheet (TDS)**

Catalog Number:

121-11

Source:

Escherichia coli.

Molecular Weight:

Approximately 19.1 kDa, a single non-glycosylated polypeptide chain containing 179 amino acids.

Quantity:

2μg/10μg/1000μg

AA Sequence:

MPGPPAGSPR VSSDPRADLD SAVLLTRSLL ADTRQLAAQM RDKFPADGDHSLDSLPTLAM

SAGTLGSLQL PGVLTRLRVD LMSYLRHVQW LRRAGGPSLKTLEPELGALQ ARLERLLRRL QLLMSRLALP QAAPDQPVIP LGPPASAWGSIRAAHAILGG LHLTLDWAVR GLLLLKTRL

**Purity:** 

> 97 % by SDS-PAGE and HPLC analyses.

**Biological Activity:** 

Fully biologically active when compared to standard. The ED<sub>50</sub> as determined by a cell proliferation

assay using murine T11 cells is less than 2 ng/ml, corresponding to a specific activity of  $> 5.0 \times 10^5$ 

IU/mg.

Physical Appearance:

Sterile Filtered White lyophilized (freeze-dried) powder. Lyophilized from a 0.2 µm filtered solution in PBS, pH 7.4.

Endotoxin:

Formulation:

Less than 1 EU/μg of rMuIL-11 as determined by LAL method.

Reconstitution:

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  $\leq$  -20  $\mathbb C$ . Further dilutions should be made in appropriate buffered solutions.

Shipping:

The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature

recommended below.

Stability & Storage:

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.

Usage:

ChemWhat Limited in UK offers this branded product for research, development or further

evaluation purposes. NOT FOR HUMAN USE.

## Murine Interleukin-11

Interleukin-11 (IL-11) is encoded by the IL11 gene. IL-11 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-11 R $\alpha$  subunit and two molecules of the expressed cell signaling  $\beta$  subunit, gp130. IL-11 is a member of the IL-6 superfamily, distinguished based on their use of the common co-receptor gp130. IL-11 can directly stimulate the proliferation of hematopoietic stem cells and megakaryocyte progenitor cells, and induce megakaryocyte maturation resulting in increased platelet production. Mature murine IL-11 shares 88 % amino acid sequence identity with human IL-11.

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