

Recombinant Human Interleukin-11

#R00048

Size: 10 µg/100 µg/500 µg

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.



Warning: This product is intended for scientific research only. It is not to be used for medical or diagnostic procedures in humans or animals, nor as a food, cosmetic, or household product.

Background

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 α subunit and two molecules of the expressed cell signaling β 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.

AA Sequence

MPGPPPGPPRVSPDPRAELDSTVLLTRSLADTRQL
AAQLRDKFPADGDHNLDSLPTLAMSGALGALQLPG
VLTRLRADLLSYLRHVQWLRRAGGSSSLKTLEPELGTL

QARLDRLRLQLLLMSRLALPQPPDPPAPPLAPPSS
AWGGIRAAHAILGGLHLTLDWAVRGLLLKTRL

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 °C. Further dilutions should be made in appropriate buffered solutions.

Product Specification

Synonyms	AGIF
Accession	P20809
GeneID	3589
Species	Human
Source	Escherichia coli.
Molecular Weight	Approximately 19.1 kDa, a single non-glycosylated polypeptide chain containing 179 amino acids.
Purity	> 95 % by SDS-PAGE and HPLC analyses.
Biological Activity	Fully biologically active when compared to standard. The ED ₅₀ 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 ⁶ IU/mg.

Physical	Sterile Filtered White lyophilized
Appearance	(freeze-dried) powder.
Formulation	Lyophilized from a 0.2 µm filtered concentrated solution in PBS, pH 7.4.
Endotoxin	Less than 1 EU/µg of rHuIL-11 as determined by LAL method.