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IL-11
Catalog # PVGS1267

Specification

IL-11 - Product Information

Primary Accession P47873

Species
Mouse

Sequence
Gly23-Leu199

Purity
> 95% as analyzed by SDS-PAGE
> 95% as analyzed by HPLC

Endotoxin Level
< 0.2 EU/ µg of protein by gel clotting method

Biological Activity
ED₅₀ < 3.0 ng/ml, measured in a cell proliferation assay using TF-1 cells.

Expression System
HEK 293

Formulation **Lyophilized after extensive dialysis against PBS.**

Reconstitution
It is recommended that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute the lyophilized powder in ddH_2O or PBS up to 100 µg/ml.

Storage & Stability
Upon receiving, this product remains stable for up to 6 months at lower than -70°C. Upon reconstitution, the product should be stable for up to 1 week at 4°C or up to 3 months at -20°C. For long term storage it is recommended that a carrier protein (example 0.1% BSA) be added. Avoid repeated freeze-thaw cycles.

IL-11 - Additional Information

Gene ID 16156

Other Names
Interleukin-11, IL-11, Il11 {ECO:0000312|MGI:MGI:107613}

Target Background
Interleukin-11 (IL-11) is a pleiotropic cytokine that was originally detected in the conditioned medium of an IL-1α-stimulated primate bone marrow stromal cell line (PU-34) as a mitogen for the IL-6-responsive mouse plasmacytoma cell line T11. IL-11 contains no cysteine residues or potential glycosylation sites. IL-11 has multiple effects on both hematopoietic and nonhematopoietic cells. Many of the biological effects described for IL-11 overlap those for IL-6. In vitro, IL-11 can

synergize with IL-3, IL-4 and SCF to shorten the G0 period of early hematopoietic progenitors. IL-11 also enhances the IL-3-dependent megakaryocyte colony formation. IL-11 has been found to stimulate the T cell dependent development of specific immunoglobulin-secreting B cell.

IL-11 - Protein Information

Name Il11 {ECO:0000312|MGI:MGI:107613}

Function
Cytokine that stimulates the proliferation of hematopoietic stem cells and megakaryocyte progenitor cells and induces megakaryocyte maturation resulting in increased platelet production (PubMed:8913282). Also promotes the proliferation of hepatocytes in response to liver damage (PubMed:22253262). Binding to its receptor formed by IL6ST and either IL11RA1 or IL11RA2 activates a signaling cascade that promotes cell proliferation, also in the context of various cancers (PubMed:10026196, PubMed:23948300). Signaling leads to the activation of intracellular protein kinases and the phosphorylation of STAT3 (PubMed:22253262, PubMed:23948300). The interaction with the membrane- bound IL11RA and IL6ST stimulates 'classic signaling', whereas the binding of IL11 and soluble IL11RA to IL6ST stimulates 'trans- signaling' (By similarity).

Cellular Location
Secreted.

IL-11 - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

IL-11 - Images