

IL-11

Catalog # PVGS1267

Product Information

Primary Accession Species	P47873 Mouse
Sequence	Gly23-Leu199
Purity	> 95% as analyzed by SDS-PAGE > 95% as analyzed by HPLC
Endotoxin Level Biological Activity Expression System	ED ₅₀ HEK 293
Formulation Reconstitution	Lyophilized after extensive dialysis against PBS. 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 ₂ O 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.

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-1 α -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.

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.

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