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IL-6

Catalog # PVGS1407

Specification

IL-6 - Product Information

Primary Accession P08505

Species
Mouse

Sequence
Phe25-Thr211

Purity
> 95% as analyzed by SDS-PAGE

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

Biological Activity
ED₅₀ < 3.0 pg /ml, measured in a bioassay using 7TD1 cells.

Expression System
CHO

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-6 - Additional Information

Gene ID 16193

Other Names
Interleukin-6, IL-6, B-cell hybridoma growth factor, Interleukin HP-1, Il6 {ECO:0000312|MGI:MGI:96559}, Il-6

Target Background
Interleukin-6 (IL-6), also known as BSF-2, CDF and IFNB2, is a pleiotropic cytokine that participates in both pro-inflammatory and anti-inflammatory responses. It is produced mainly by T cells, macrophages, monocytes, endothelial cells and muscle cells. IL-6 binds to IL-6 receptor (IL-6R) to trigger the association of IL-6R with gp130, inducing signal transduction through JAKs and STATs.

The biological functions of IL-6 are diverse. It stimulates B cell differentiation and antibody production, myeloma and plasmacytoma growth, and nerve cell differentiation. It also acts as a myokine, produced by muscle cells in response to muscle contraction and released into the blood stream to help break down fats and improve insulin resistance.

IL-6 - Protein Information

Name Il6 {ECO:0000312|MGI:MGI:96559}

Synonyms Il-6

Function
Cytokine with a wide variety of biological functions in immunity, tissue regeneration, and metabolism (Probable). Binds to IL6R, then the complex associates to the signaling subunit IL6ST/gp130 to trigger the intracellular IL6-signaling pathway (PubMed:8910279). The interaction with the membrane-bound IL6R and IL6ST stimulates 'classic signaling', whereas the binding of IL6 and soluble IL6R to IL6ST stimulates 'trans-signaling'. Alternatively, 'cluster signaling' occurs when membrane-bound IL6:IL6R complexes on transmitter cells activate IL6ST receptors on neighboring receiver cells (PubMed:27893700).

Cellular Location
Secreted.

Tissue Location
Expressed by dendritic cells and macrophages (PubMed:23045607, PubMed:27893700). Expressed by activated follicular B cells (PubMed:23045607). Abundantly expressed in the central nervous system (CNS), particularly the hypothalamic region (PubMed:28402851)

IL-6 - 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-6 - Images