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IL-7

Catalog # PVGS1423

Specification

IL-7 - Product Information

Primary Accession P13232

Species
Human

Sequence
Asn26-His177

Purity
> 95% as analyzed by SDS-PAGE

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

Biological Activity
ED₅₀ < 0.2 ng/ml, measured in a cell proliferation assay using 2E8 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-7 - Additional Information

Gene ID 3574

Other Names
Interleukin-7, IL-7, IL7

Target Background
Interleukin-7 (IL-7), also known as lymphopoietin 1 and pre-B cell factor, is a hematopoietic growth factor belonging to the IL-7/IL-9 family. It is produced by keratinocytes, dendritic cells, hepatocytes, neurons and epithelial cells. IL-7 binds and signals through IL-7 receptor, a heterodimer consisting of IL-7 receptor alpha and common gamma chain receptor. IL-7 plays a role in regulating early B cell and T cell development. It is also important for optimal dendritic cell-T

cell interaction.

IL-7 - Protein Information

Name IL7

Function
Hematopoietic cytokine that plays an essential role in the development, expansion, and survival of naive and memory T-cells and B- cells thereby regulating the number of mature lymphocytes and maintaining lymphoid homeostasis (PubMed:25870237, PubMed:7527823). Mechanistically, exerts its biological effects through a receptor composed of IL7RA subunit and the cytokine receptor common subunit gamma/CSF2RG (PubMed:8128231). Binding to the receptor leads to activation of various kinases including JAK1 or JAK3 depending on the cell type and subsequently propagation of signals through activation of several downstream signaling pathways including the PI3K/Akt/mTOR or the JAK-STAT5 (PubMed:18523275, PubMed:20974963).

Cellular Location
Secreted.

IL-7 - 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-7 - Images