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IL-15

Catalog # PVGS1502

Product Information

Primary Accession	P40933
Species	Human
Sequence	Asn49-Ser162, expressed with an N-terminal Met
Purity	> 95% as analyzed by SDS-PAGE
Endotoxin Level	
Expression System	E. coli
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 □g/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	3600
Other Names	Interleukin-15, IL-15, IL15
Target Background	Interleukin-15 (IL-15) is a cytokine with structural similarity to IL-2. Like IL-2, IL-15 binds to and signals through a complex composed of IL-2/IL-15 receptor beta chain (CD122) and the common gamma chain (gamma-C, CD132). IL-15 is secreted by mononuclear phagocytes (among other cells) following infection by virus. This cytokine induces cell proliferation of natural killer cells, which are cells of the innate immune system whose principal role is to kill virally infected cells. IL-15 can stimulate the proliferation of T-lymphocytes. Stimulation by IL-15 occurs following its interaction with IL-15Rα. This interaction may enhance IL-15's interaction with IL15Rβγc.

Protein Information

Name	IL15
Function	Cytokine that plays a major role in the development of inflammatory and

protective immune responses to microbial invaders and parasites by modulating immune cells of both the innate and adaptive immune systems (PubMed:15123770). Stimulates the proliferation of natural killer cells, T-cells and B-cells and promotes the secretion of several cytokines (PubMed:8178155, PubMed:9326248). In monocytes, induces the production of IL8 and monocyte chemotactic protein 1/CCL2, two chemokines that attract neutrophils and monocytes respectively to sites of infection (PubMed:9326248). Unlike most cytokines, which are secreted in soluble form, IL15 is expressed in association with its high affinity IL15RA on the surface of IL15-producing cells and delivers signals to target cells that express IL2RB and IL2RG receptor subunits (PubMed:10233906, PubMed:23104097, PubMed:8026467). Binding to its receptor triggers the phosphorylation of JAK1 and JAK3 and the recruitment and subsequent phosphorylation of signal transducer and activator of transcription-3/STAT3 and STAT5 (PubMed:7568001). In mast cells, induces the rapid tyrosine phosphorylation of STAT6 and thereby controls mast cell survival and release of cytokines such as IL4 (By similarity).

Cellular Location [Isoform IL15-S48AA]: Secreted.

Tissue Location Most abundant in placenta and skeletal muscle. It is also detected in the heart, lung, liver and kidney. IL15-S21AA is preferentially expressed in tissues such as testis and thymus

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