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IL-13

Catalog # PVGS1428

Product Information

Primary Accession	P20109
Species	Mouse
Sequence	Pro22-Phe131
Purity	> 95% as analyzed by SDS-PAGE
Endotoxin Level	
Biological Activity	ED_{50}
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 □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	16163
Other Names	Interleukin-13, IL-13, T-cell activation protein P600, Il13, Il-13
Target Background	Interleukin-13 (IL-13), also known as T-cell activation protein P600, is an immunoregulatory cytokine belonging to the IL-4/IL-13 family. It is produced by activated Th2 cells, mast cells and NK cells. IL-13 signals through a receptor complex composed of IL-4Rα and IL13Rα1 (or IL13Rα2). IL-13 inhibits the expression of inflammatory cytokines such as IL-1β, TNF-α and IL-6 by monocytes and macrophages. It also induces B cell activation and IgE secretion.

Protein Information

Name	Il13
Synonyms	Il-13

Function	Cytokine that plays important roles in allergic inflammation and immune response to parasite infection (PubMed:15361238). Synergizes with IL2 in regulating interferon-gamma synthesis. Stimulates B-cell proliferation, and activation of eosinophils, basophils, and mast cells (By similarity). Plays an important role in controlling IL33 activity by modulating the production of transmembrane and soluble forms of interleukin-1 receptor-like 1/IL1RL1 (PubMed:34789557). Displays the capacity to antagonize Th1-driven proinflammatory immune response and down-regulates synthesis of many proinflammatory cytokines including IL1, IL6, IL10, IL12 and TNF through a mechanism that partially involves suppression of NF-kappa-B (By similarity). Also functions on nonhematopoietic cells, including endothelial cells where it induces vascular cell adhesion protein 1/VCAM1, which is important in the recruitment of eosinophils. Exerts its biological effects through its receptors which comprises the IL4R chain and the IL13RA1 chain, to activate JAK1 and TYK2, leading to the activation of STAT6 (PubMed:34795444, PubMed:8871614). Aside from IL13RA1, another receptor IL13RA2 acts as a high affinity decoy for IL13 and mediates internalization and depletion of extracellular IL13 (PubMed:29305434). Induces inflammatory response in esophageal epithelium which results in a dysregulation of desmosome intercellular adhesion junctions, via down-regulation of DSG1 (PubMed:24220297).
Cellular Location	Secreted.

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