

Active Recombinant Human IL18 Protein (Tyr37-Asp193), Animal-free, Carrier-free

Cat. No. IL18-183H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human IL18 Protein (Tyr37-Asp193) without tag was expressed in E. coli and Animal-free as well as Carrier-free.
Species	Human
Source	E.coli
ProteinLength	Tyr37-Asp193
Description	Interleukin-18 (IL-18) belongs to the IL-1 superfamily and is constitutively produced by macrophages, dendritic cells (DCs) and other cells. IL-18 binds to the receptor of IL-18 (IL-18R) and initiate the recruitment and heterodimerization of the IL-18RαP, leading to downstream activation of NF-κB. After stimulation with IL-18, multiple cytokines including IFN-γ, IL-13, IL-4, IL-8, and GM-CSF and both Th1 and Th2 lymphokines could be produced by different cells. As an immunoregulatory cytokine, IL-18 can promote development of T helper 1 (Th1) cells, which maximizes the production of IFN by synergistically stimulating to mature Th1 effectors in combination with IL-12. On the contrary, it inhibits the production of the anti-inflammatory cytokine IL-10. In addition, IL-18 exhibits multiple proinflammatory functions, such as increases in cell adhesion molecules, nitric oxide synthesis, and chemokine production.
Form	Lyophilized
Bio-activity	Measure by its ability to induce IFN gamma secretion in KG-1 cells. The ED50 for this

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	effect is < 6 ng/mL. The specific activity of recombinant human IL-18 is > 1 × 10 ⁷ IU/mg, which is calibrated against the human IL-18 WHO Reference Reagent (NIBSC code: 03/200)
Molecular Mass	The protein has a calculated MW of 18.2 kDa. The protein migrates as 15 kDa under reducing condition (SDS-PAGE analysis).
Endotoxin	< 0.1 EU/μg of the protein by the LAL method.
Purity	>95% as determined by SDS-PAGE analysis.
Storage	This product is stable after storage at: -20 centigrade for 12 months in lyophilized state from date of receipt. -20 or -80 centigrade for 1 month under sterile conditions after reconstitution. Avoid repeated freeze/thaw cycles.
Storage Buffer	Lyophilized from a 0.2 μm filtered solution of PBS, pH 7.4.
Reconstitution	It is recommended to reconstitute the lyophilized protein in sterile H ₂ O to a concentration not less than 200 μg/mL and incubate the stock solution for at least 20 min to ensure sufficient re-dissolved.
Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at -20 centigrade or lower for long term storage.
GENE INFORMATION	
Gene Name	IL18 interleukin 18 (interferon-gamma-inducing factor) [Homo sapiens (human)]
Official Symbol	IL18

Synonyms	IL18; interleukin 18 (interferon-gamma-inducing factor); interleukin-18; IGIF; IL 1g; IL 18; IL1F4; IL-1 gamma; iboctadekin; interleukin-1 gamma; IFN-gamma-inducing factor; IL-18; IL-1g; MGC12320;
Gene ID	3606
mRNA Refseq	NM_001243211
Protein Refseq	NP_001230140
MIM	600953
UniProt ID	Q14116
SDS-PAGE analysis of recombinant human IL-18.	