

Recombinant Human IL-18 Protein

Catalog No	RP00006	Category	Protein
Description	Recombinant Human IL-18 Protein is produced by <i>E. coli</i> expression system. The target protein is expressed with sequence (Tyr37-Asp193) of human IL-18 (Accession #NP_001553.1).		
Bio-Activity	Measured by its ability to induce IFN-gamma secretion by KG-1 human acute myelogenous leukemia cells in the presence of TNF-alpha. The ED ₅₀ for this effect is typically 15-75 ng/ml.		

Sequence Information

Species	Human	Gene ID	3606
Tags	No tag	Swiss Prot	Q14116
Synonyms	IGIF;IL-18;IL-1g;IL1F4		
AA Sequence	YFGKLESKLSVIRNLNDQVLFIDQGNRPLFEDMTDSDCRDNAPRTIFIISMYSQPRGM AVTISVKCEKISTLSCENKIISFKEMNPPDNIKDTKSDIIFQRSVPGHDNKMQFESSSY EGYFLACEKERDLFKLILKKEDELGDRSIMFTVQNE		

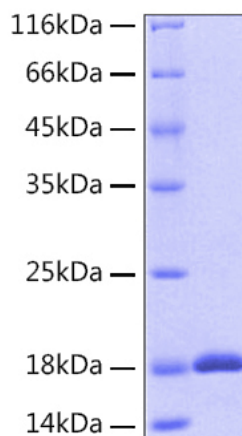
Product information

Source	<i>E. coli</i>
Purity	> 95% by SDS-PAGE.
Endotoxin	< 0.1 EU/μg of the protein by LAL method.
Formulation	Lyophilized from a 0.22 μm filtered solution of PBS, pH 7.4.
Reconstitution	Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water.
Storage	Store the lyophilized protein at -20°C to -80 °C for long term. After reconstitution, the protein solution is stable at -20 °C for 3 months, at 2-8 °C for up to 1 week. Avoid repeated freeze/thaw cycles.

Background

Interleukin-18 (IL-18, also known as interferon-gamma inducing factor) is a proinflammatory cytokine that belongs to the IL-1 superfamily and is produced by macrophages and other cells. IL-18 activation is induced by infection or tissue damage and contributes to disease pathology in chronic inflammation. In the presence of IL-12 or IL-15, IL-18 enhances anti-viral Th1 immune responses by inducing IFN-gamma production and the cytolytic activity of CD8+ T cells and NK cells. In the absence of IL-12 or IL-15, however, IL-18 promotes production of the Th2 cytokines IL-4 and IL-13 by CD4+ T cells and basophils. In the presence of IL-1 beta or IL-23, IL-18 induces the antigen-independent production of IL-17 by gamma δ T cells and CD4+ T cells. IL-18 also promotes myeloid dendritic cell maturation and triggers neutrophil respiratory burst. In cancer, IL-18 exhibits diverse activities including enhancing anti-tumor immunity, inhibiting or promoting angiogenesis, and promoting tumor cell metastasis.

SDS-PAGE



Recombinant Human IL-18 was determined by SDS-PAGE under reducing conditions with Coomassie Blue, showing a band at 18 kDa.

Bioactivity