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## **Human IL-18 Protein, (Animal-Free)**

Cat #: PRP1903 Size: 5 µg/20 µg/100 µg/1 mg

## **Product Information**

	Product Name: Human IL-18 Protein, (Animal-Free)		
REF	Catalog Number:PRP1903	LOT	Lot Number: Refer to product label
	Purity: > 95 % as determined by SDS-PAGE		
Å	Storage: Store at -20°C		Preparation method: E.coli
	Shipping: The product is shipped at ambient temperature.		

Background: 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-18RAcP, 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 immunoregulaory 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.

Sequence: Amino acid sequence derived from Human IL-18 (Tyr37-Asp193) (Q14116) was expressed.

<u>Protein length</u>: The recombinant Human IL-18 Protein consists of 157 amino acids and predicts a molecular mass of 18.2 kDa.

**<u>Biological Activity</u>**: Measured by its ability to induce IFN gamma secretion in KG-1 cells. The ED<sub>50</sub> for this effect is <6 ng/mL.

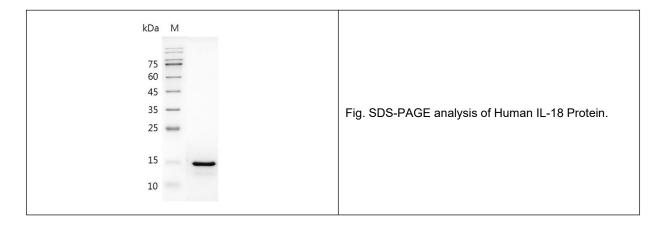
**Endotoxin:** <0.1 EU per  $\mu$ g of the protein by the LAL method.

Formulation: Lyophilized from sterile PBS, pH 7.4.

<u>Storage Instructions</u>: Lyophilized protein product should be stored desiccated below -18°C. Upon reconstitution, the protein should be stored at 4°C between 2-7 days and for future use below -18°C. For long term storage it is recommended to add a carrier protein (5% HSA, 10%FBS or 0.1%BSA). Please prevent freeze-thaw cycles.



<u>Usage notes</u>: Always centrifuge tubes before opening. It is recommended to reconstitute the lyophilized recombinant protein to a concentration of 0.1-1 mg/mL using the buffer we provided, and keep at room temperature for at least 20 min to fully dissolve. Please avoid vortex vigorously.



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