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<b>Product name:</b>	Recombinant Human IL-18 Protein
<b>Cat number:</b>	GRF00006
<b>Size:</b>	20 ug
<b>Synonyms:</b>	IL18;IGIF;IL-18;IL-1g;IL1F4
<b>Molecular Weight:</b>	18.22 kDa
<b>Purification:</b>	≥ 95 % as determined by SDS-PAGE.
<b>Background:</b>	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.
<b>Form:</b>	Lyophilized
<b>Storage:</b>	Store at -20°C. Store the lyophilized protein at -20°C to -80 °C up to 1 year from the date of receipt. After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week.
<b>Source:</b>	<i>E. coli</i>
<b>Description:</b>	High quality, high purity and low endotoxin recombinant Recombinant Human IL-18 Protein, tested reactivity in <i>E. coli</i> and has been validated in SDS-PAGE. 100% guaranteed.
<b>Endotoxin:</b>	< 0.1 EU/μg of the protein by LAL method.
<b>Bio-Activity:</b>	1. Measured by its binding ability in a functional ELISA. Immobilized recombinant Human IL18 at 5 μg/mL (100μL/well) can bind recombinant Human IL18BPa with a linear range of 0.156-1.372 μg/mL. 2. Measured by its ability to induce IFN-gamma secretion by KG1 human acute myelogenous leukemia cells in the presence of TNF-alpha (Catalog: RP00001). The ED 50 for this effect is 1.44-5.76 ng/mL, corresponding to a specific activity of 1.7×10 5 ~6.9×10 5 units/mg.
<b>Formulation:</b>	Lyophilized from a 0.22 μm filtered solution of PBS, pH 7.4. Contact us for customized product form or formulation.

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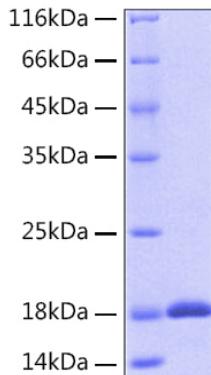
**Reconstitution:**

Centrifuge the vial before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid vortex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stabilizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

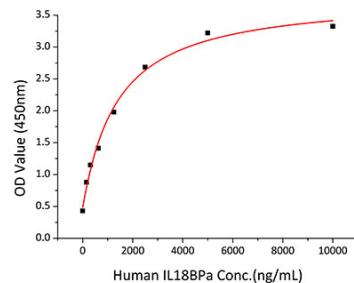
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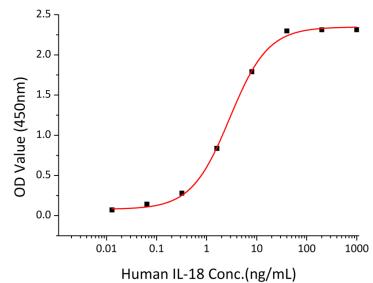
Web-site: <https://immunologicalsciences.com> - E-mail: [info@immunologicalsciences.com](mailto:info@immunologicalsciences.com)



Immobilized recombinant Human IL18 at 5 $\mu$ g/mL (100 $\mu$ L/well) can bind recombinant Human IL18BP $\alpha$  with a linear range of 0.156-1.372 $\mu$ g/mL.



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Recombinant Human IL-18 induce IFN-gamma secretion by KG 1 human acute myelogenous leukemia cells in the presence of TNF-alpha. The ED50 for this effect is 1.44-5.76 ng/mL, corresponding to a specific activity of  $1.7 \times 10^5$ ~ $6.9 \times 10^5$  units/mg.

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