

RP02521

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Recombinant Mouse IL-18 Protein

Catalog No.: RP02521

Recombinant

Sequence Information

Species	Gene ID	Swiss Prot
Mouse	16173	P70380

Tags

C-His

Synonyms

Ig; IL-; Igif; IL-18; IL18

Product Information

Source	Purification
HEK293 cells	> 98% by SDS-PAGE.

Endotoxin

<0.1EU/μg

Formulation

Lyophilized from a 0.22 μm filtered solution of PBS, pH 8.0.

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.

Background

Interleukin-18 (IL-18) is a cytokine that belongs to the IL-1 superfamily and is produced by macrophages and other cells. IL-18 works by binding to the interleukin-18 receptor, and together with IL-12 it induces cell-mediated immunity following infection with microbial products like lipopolysaccharide (LPS). After stimulation with IL-18, natural killer (NK) cells and certain T cells release another important cytokine called interferon-γ (IFN-γ) or type II interferon that plays an important role in activating the macrophages or other cells. The combination of this cytokine and IL12 has been shown to inhibit IL-4 dependent IgE and IgG1 production, and enhance IgG2a production in B cells. IL-18 binding protein (IL18BP) can specifically interact with this cytokine, and thus negatively regulate its biological activity.

Basic Information

Description

Recombinant Mouse IL-18 Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence of Mouse IL-18 fused with His tag at the C-terminus

Bio-Activity

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 ED₅₀ for this effect is 42.93-171.72 ng/mL, corresponding to a specific activity of 0.58×10⁴~2.3×10⁵ units/mg.

Storage

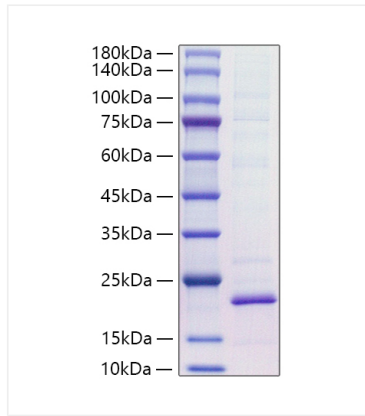
Store the lyophilized protein at -20°C to -80°C for long term. After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week. Avoid repeated freeze/thaw cycles.

Contact

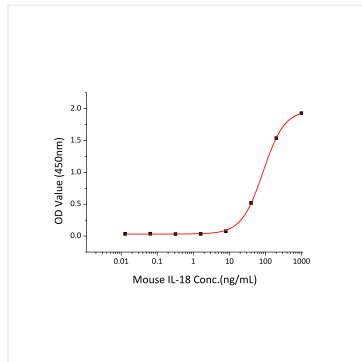


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Validation Data



Recombinant Mouse IL-18 Protein was determined by SDS-PAGE with Coomassie Blue, showing a band at 15-25 kDa.



Recombinant Mouse IL-18 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 42.93-171.72 ng/mL, corresponding to a specific activity of $0.58 \times 10^4 \sim 2.3 \times 10^5$ units/mg.