

Recombinant Mouse IL-18 Protein

 Catalog No.: RP02521 **Recombinant**

Sequence Information

Species Mouse **Gene ID** 16173 **Swiss Prot** P70380

Tags

C-His

Synonyms

Ig; II-; Igf; II-18;IL18

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 IL-12 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.

Product Information

Source HEK293 cells **Purification** $\geq 95\%$ as determined by SDS-PAGE.

Calculated MW 18.96 kDa **Observed MW** 15-25 kDa

Endotoxin

< 0.1 EU/ μ g of the protein by LAL method.

Formulation

Lyophilized from a 0.22 μ m 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 freeze/thaw cycles.

Basic Information

Description

Recombinant Mouse IL-18 Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence [Asn36-Ser192] of Mouse IL-18 fused with His tag at the C-terminus

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 (Catalog: RP00001). The ED₅₀ 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.

Shipping

The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.

Storage

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.

Avoid repeated freeze/thaw cycles.

Operational Notes

For your safety and health, please wear a lab coat and disposable gloves for handling.

Contact

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