Recombinant Human IL-18 Protein

Catalog No.: RP00006

www.abclonal.com

Sequence Information

Species
Human

Gene ID
3606

Swiss Prot
Q14116

Tags
No tag

Synonyms
IL18,IGIF,IL-18,IL-1g,IL1F4

Product Information

Source
E. coli

Purification
≥ 95 % as determined by SDS-PAGE.

Calculated MW
18.22 kDa

Observed MW
18 kDa

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.Contact us for customized product form or formulation.

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 stablizer (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, 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.

Basic Information

Description
Recombinant Human IL-18 Protein is produced by *E. coli* expression system. The target protein is expressed with sequence (Tyr37-Asp193) of human IL-18 (Accession #NP_001553.1).

Activity
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 KG-1 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.

Shipping
Lyophilized proteins are shipped at ambient temperature.
Liquid proteins are shipped at frozen temperature with dry ice.
Upon receipt, store it immediately at the temperature recommended below.

Storage
Store at -20℃

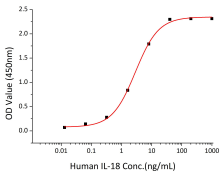
Operational Notes
For your safety and health, please wear a lab coat and disposable gloves for handling.

Contact

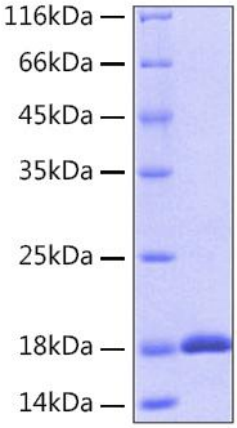
400-999-6126
cn.market@abclonal.com.cn
www.abclonal.com.cn

For research use only. Not for therapeutic or diagnostic purposes.
Please visit http://abclonal.com for a complete listing of recommended products.

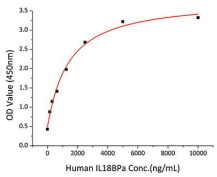
Validation Data



Recombinant Human IL-18 induce IFN-gamma secretion by KG-1 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.



Recombinant Human IL-18 Protein was determined by SDS-PAGE under reducing conditions with Coomassie Blue.



Immobilized recombinant Human IL18 at 5μg/mL (100μL/well) can bind recombinant Human IL18BPa with a linear range of 0.156-1.372μg/mL.

For research use only. Not for therapeutic or diagnostic purposes.
Please visit http://abclonal.com for a complete listing of recommended products.