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# SCIENTIFIC

# IL 18 Human

**Description:**Interleukin-18 Human Recombinant produced in E.Coli is a single, non-glycosylated polypeptide chain containing 157 amino acids and having a molecular mass of 18302 Dalton. The IL-18 is purified by proprietary chromatographic techniques.

**Synonyms:**Interferon-gamma-inducing factor, IGIF, IL-1g, IL-18, IL1F4, MGC12320, IFN-gamma-inducing factor, Interleukin-1 gamma, IL-1 gamma, Iboctadekin.

Source: Escherichia Coli.

Physical Appearance: Sterile Filtered White lyophilized (freeze-dried) powder.

**Purity:**Greater than 98.0% as determined by(a) Analysis by RP-HPLC.(b) Analysis by SDS-PAGE.

### Formulation:

Lyophilized from a concentrated (1mg/ml) solution in water containing 0.5x PBS pH=7.3.

### Stability:

Lyophilized Interleukin 18 although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution IL18 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 (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

# Usage:

NeoBiolab's products are furnished for LABORATORY RESEARCH USE ONLY. The product may not be used as drugs, agricultural or pesticidal products, food additives or household chemicals.

### Solubility:

It is recommended to reconstitute the lyophilized Interleukin 18 in sterile 18M-cm H2O not less than 100µg/ml, which can then be further diluted to other aqueous solutions.

### Introduction:

IL-18 is a proinflammatory cytokine. This cytokine can induce the IFN-gamma production of T cells. The combination of this cytokine and IL12 has been shown to inhibit IL4 dependent IgE and IgG1 production, and enhance IgG2a production of B cells. IL-18 binding protein (IL18BP) can specifically interact with this cytokine, and thus negatively regulate its biological activity.

### **Biological Activity:**

The ED50 as determined by the dose-dependant stimulation of the IFN-g by human PBMC co-stimulated with IL-12 was found to be 5ng/ml corresponding to a Specific Activity of 200,000IU/mg.

# References:

Title:Discovery of IL-18 As a Novel Secreted Protein Contributing to Doxorubicin Resistance by Comparative Secretome Analysis of MCF-7 and MCF-7/Dox.Publication:Yao L, Zhang Y, Chen K, Hu X, Xu LX (2011) Discovery of IL-18 As a Novel Secreted Protein Contributing to Doxorubicin Resistance by Comparative Secretome Analysis of MCF-7 and MCF-7/Dox. PLoS ONE 6(9): e24684.







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