Cynomolgus IL-18 / IL-1F4 Protein (His Tag)

Catalog Number: **90011-C07E**

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Biological Solution Specialist

General Information

Gene Name Synonym:

IL-18

Protein Construction:

A DNA sequence encoding the Cynomolgus (Macaca fascicularis) IL-18 (Ala 2-Asp 193) was expressed, with an N-terminal polyhistidine tag.

Source: Cynomolgus

Expression Host: E. coli

QC Testing

Purity: > 92 % as determined by SDS-PAGE

Bio-Activity

1. Measured by its ability to bind human IL18R1 in a functional ELISA.
2. Measured by its ability to induce IFNγsecretion by KG-1 human acute myelogenous leukemia cells in the presence of TNFα. The ED50 for this effect is typically 3-15 μg/mL in the presence of 20 ng/mL recombinant human TNFα.

Endotoxin:

Please contact us for more information.

Stability:

Samples are stable for up to twelve months from date of receipt at -70 ℃

Predicted N terminal: Met

Molecular Mass:

The recombinant cynomolgus IL18 consists of 203 amino acids and has a calculated molecular mass of 23.7 kDa. The apparent molecular mass of the recombinant protein is approximately 24 kDa in SDS-PAGE under reducing conditions due to glycosylation.

Formulation:

Lyophilized from sterile PBS, pH 7.4

Normally 5 % - 8 % trehalose and mannitol are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

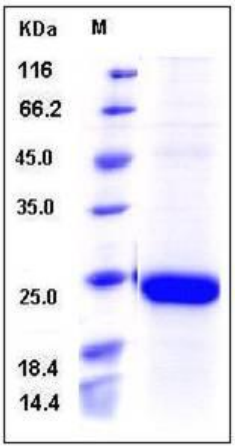
Usage Guide

Storage:

Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

SDS-PAGE:



Reconstitution:

Detailed reconstitution instructions are sent along with the products.

Protein Description

Interleukin-18, also known as Interferon gamma-inducing factor, Iboctadekin, IFN-gamma-inducing factor, Interleukin-1 gamma, IL-1 gamma IL1F4 and IL18, is a secreted protein which belongs to theIL-1 family. IL-18 / Interleukin-18 is related to the IL1 family by structure, receptors, signalling molecules, and function. IL18 induces gene expression and synthesis of tumour necrosis factor (TNF), IL1, Fas ligand, several chemokines, and vascular adhesion molecules. Similar to IL-1beta, IL-18 / Interleukin-18 is synthesised as a biologically inactive precursor molecule lacking a signal peptide. IL-18 / Interleukin-18 augments natural killer cell activity in spleen cells and stimulates interferon gamma production in T-helper type I cells. Rheumatoid arthritis (RA) is a complex autoimmune disease with a strong genetic contribution to its pathogenesis. Interleukin-18 (IL-18) is a proinflammatory cytokine involved in the pathogenesis of RA. IL-18 / Interleukin-18 is also a proinflammatory cytokine whose levels are increased in the subclinical stage of insulin-dependent (type I) diabetes mellitus.

References

1. Dinarello,C.A. 2001, Ann Rheum Dis. 60 Suppl 3: iii18-24.
2. Liew,F.Y. et al., 2002, Ann Rheum Dis. 61 Suppl 2: ii100-2.
3. Martin,R.J. et al., 2005, Genes Immun. 6 (2): 171-4.
4. Sakai, K. et al., 2008, J Infect Dis. 197 (12): 1752-61.
5. Pawlik, A. et al., 2009,Scand J Rheumatol. 38 (3): 159-65.