Recombinant Mouse Interleukin-18/IL-18 Protein (His Tag)

Catalog No. PKSM041079

Note: Centrifuge before opening to ensure complete recovery of vial contents.

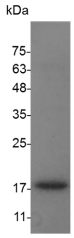
Description

Synonyms	Interleukin-18;Il18;Interferon gamma-inducing factor;IFN-gamma-inducing factor;Interleukin-1 gamma;IL-1 gamma;Igif
Species	Mouse
Expression Host	E.coli
Sequence	Asn36-Ser192
Accession	P70380
Calculated Molecular Weight	19.1 kDa
Observed molecular weight	18 kDa
Tag	C-His
Bioactivity	Measure by its ability to induce IFN gamma secretion in KG-1 cells.The ED_{50} for this effect is < 0.5 μg/mL.

Properties

Purity	> 98 % as determined by reducing SDS-PAGE.
Endotoxin	< 0.1 EU per μg of the protein as determined by the LAL method.
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80℃. Reconstituted protein solution can be stored at 4-8℃ for 2-7 days. Aliquots of reconstituted samples are stable at < -20℃ for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from sterile PBS,pH 8.0. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.

Data



> 98 % as determined by reducing SDS-PAGE.

Background

Interleukin-18 (IL-18)is a protein which belongs to the IL-1 family. It is expressed as a 24 kDa precursor by endothelial and epithelial cells, keratinocytes, gamma δ T cells, and phagocytes. Mature mouse IL-18 shares 63% and 91% amino acid sequence identity with mouse and rat IL-18, respectively. IL-18 binds to the widely expressed IL-18 R alpha which recruits IL-18 R beta to form the signaling receptor complex. Its bioactivity is negatively regulated by interactions with IL-18 binding proteins and virally encoded IL-18BP homologs. It augments natural killer cell activity in spleen cells and stimulates interferon gamma production in T-helper type I cells. 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.

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