Recombinant Human Interleukin-18/IL-18 Protein (GST Tag)

Catalog Number: PKSH030306

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

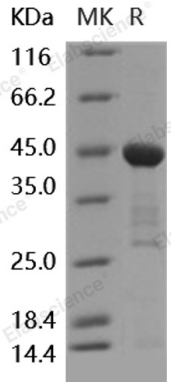
Description

Species	Human
Source	E.coli-derived Human Interleukin-18/IL-18 protein Met 1-Asp 193, with an N-terminal GST
Calculated MW	48.6 kDa
Accession	Q14116
Bio-activity	Not validated for activity

Properties

Purity	> 85 % as determined by reducing SDS-PAGE.
Endotoxin	Please contact us for more information.
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 7.5 Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 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



> 85 % as determined by reducing SDS-PAGE.

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. This cytokine can induce the IFN-gamma production of T cells. The combination of IL-18 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. IL-18 is an IL-1−like cytokine that requires cleavage with caspase-1 to become active; was found to increase IgE production in a CD4+ T cells-; IL-4− and STAT6−dependent fashion. IL-18 and T cell receptor−mediated stimulation could induce naïve CD4+ T cells to develop into IL-4−producing cells in vitro. Thus; caspase-1 and IL-18 may be critical in regulation of IgE production in vivo; providing a potential therapeutic target for allergic disorders. IL-18 production in primary synovial cultures and purified synovial fibroblasts was; in turn; upregulated by TNF-α and IL-1β; suggesting that monokine expression can feed back to promote Th1 cell development in synovial membrane. Besides; synergistic combinations of IL-18; IL-12; and IL-15 may be of importance in sustaining both Th1 responses and monokine production in RA.

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