Recombinant Human IL-36 beta protein(His Tag)

Catalog Number: PKSH034118

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

Description

Species	Human
Mol_Mass	18.2 kDa
Accession	NP_775270.1
Bio-activity	Measure by its ability to induce IL-8 secretion in human PBMCs. The ED_{50} for this effect is <0.2 ng/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 7.4. 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.

Background

Interleukin 36 beta (IL-36B) is a member of the IL-1 family of proteins. It is a cytokine that binds to and signals through the IL1RL2/IL-36R receptor which in turn activates NF-kappa-B and MAPK signaling pathways in target cells linked to a pro-inflammatory response. IL-36B is synthesized in several cells including resting and activated monocytes, and B cells. The receptor for IL-36 beta is thought to be a combination of IL-1 Rrp2 and IL-1 RAcP. Interleukin 36 beta is one part of the IL-36 signaling system that is thought to be present in epithelial barriers and to take part in local inflammatory response, similar to the IL-1 system with which it shares the coreceptor IL1RAP. IL36B are involved in a number of fundamental biological processes such as stimulating production of interleukin-6 and interleukin-8, inducing expression of a number of antimicrobial peptides including beta-defensin 4 and beta-defensin 103 as well as a number of matrix metalloproteases , inducing the production of proinflammatory cytokines in bone marrow-derived dendritic cells (BMDCs), and activating p38 MAPK phosphorylation in BMDCs. Moreover, interleukin 36 beta may be involved in skin inflammatory response by acting on keratinocytes, dendritic cells, and indirectly on T cells to drive tissue infiltration, cell maturation and cell proliferation. It plays an important role in dendritic cell maturation by stimulating the surface expression of CD80, CD86 and MHC class II and inducing the production of IFN-gamma, IL-4 and IL-17 by T helper 1 (Th1) cells, cultured CD4+ T cells and splenocytes.

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