

Product datasheet for **TP727623**

Human Recombinant Protein

Product data:

Product Type:	Recombinant Proteins
Description:	Recombinant Human IL-36 Beta(153AA)
Species:	Human
Expression cDNA Clone or AA Sequence:	Arg5-Glu157
Buffer:	Lyophilized from a 0.2 um filtered solution of PBS, pH7.4.
Note:	Recombinant Human Interleukin-36 Beta/IL36B is produced by our E.coli expression system and the target gene encoding Arg5-Glu157 is expressed.
Storage:	Lyophilized protein should be stored at < -20°C, though stable at room temperature for 3 weeks. Reconstituted protein solution can be stored at 4-7°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
Stability:	12 months from date of despatch
Synonyms:	IL36b;Interleukin-36 beta;Interleukin-1 family member 8;IL-1F8;Fil1e; IL1f8



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Summary:

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. Interleukin 36 beta are involved in a number of fundamental biological processes such as stimulating production of interleukin-6 and interleukin-8 in synovial fibroblasts, articular chondrocytes and mature adipocytes, 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), including IL-12, IL-1 beta, IL-6, TNF-alpha and IL-23, 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.