

# Recombinant Mouse IL36B Protein

**For Research Use Only**

## 1. Basic Product Information

Catalog No.: REP51877

Size: 10ug, 100ug

Protein Name: Interleukin-36 beta (Interleukin-1 family member 8) (IL-1F8)

Synonym: Il36b, Fil1e, Il1f8

UniProt ID: Q9D6Z6

UniProt Link: [www.uniprot.org/uniprotkb/Q9D6Z6/entry](http://www.uniprot.org/uniprotkb/Q9D6Z6/entry)

Species Source: Mouse

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 183 AA

Molecular Weight: 21 KD

Protein Tag: C-terminal His6

## 2. Amino Acid Sequence

MMAFPPQSCVHVLPPKSIQMWEPNHNTMHGSSQSPRNYRVHDSQQMVWVLTGNTLTAVPASNNV  
KPVILSLIACRDTEFQDVKKGNLVFLGIKNRNLFCFCVEMEGKPTLQLKEVDIMNLYKERKAQKAFLF  
YHGIEGSTSVFQSVLYPGWFIATSSIERQTIILTHQRGKLVNTNFYIESEK

## 3. Buffer Composition

Liquid format: PBS-based buffer containing 50% glycerol. Glycerol concentration can be customized upon customer request; please state special requirements when placing your order.

Lyophilized format: Buffer before lyophilization is PBS supplemented with 6% trehalose.

## 4. Storage Conditions

Upon receipt, store the product at -20 °C or -80 °C. Aliquot the product for on-demand use to preserve protein activity and prevent denaturation and inactivation caused by repeated freeze-thaw cycles.

## 5. Product Description

This product is recombinant Interleukin-36 beta (Interleukin-1 family member 8) (IL-1F8) produced using the HEK293T eukaryotic cell expression system. It is suitable for in-vitro functional assays, protein-protein interaction studies, antibody preparation and other biomedical research applications.

**Protein Function:** 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. 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. Stimulates production of interleukin-6 and interleukin-8 in synovial fibroblasts, articular chondrocytes and mature adipocytes. Induces expression of a number of antimicrobial peptides including beta-defensin 4 and beta-defensin 103 as well as a number of matrix metalloproteases (By similarity). Seems to 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. Induces the production of pro-inflammatory cytokines in bone marrow-derived dendritic cells (BMDCs), including IL-12, IL-1 beta, IL-6, TNF and IL-23, and activates p38 MAPK phosphorylation in BMDCs. Involved in dendritic cell maturation by stimulating the surface expression of CD80, CD86 and MHC class II. Induces the production of IFN-gamma, IL-4 and IL-17 by T-helper 1 (Th1) cells, cultured CD4(+) T-cells and splenocytes.

**Subcellular Localization:** Cytoplasm . Secreted . Note=Secreted upon LPS treatment followed by ATP-induced activation of P2rx7. The secretion is dependent on protein unfolding and facilitated by the cargo receptor TMED10; it results in protein translocation from the cytoplasm into the ERGIC (endoplasmic reticulum-Golgi intermediate compartment) followed by vesicle entry and secretion (By similarity).

## 6. Notes

- Avoid repeated freeze-thaw cycles to maintain protein stability and biological activity.
- Please specify special buffer-composition requirements at the time of order placement.
- For research use only. Not intended for clinical diagnosis, therapeutic use or commercial manufacturing.