

Recombinant Mouse IL36A Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP51936

Size: 10ug, 100ug

Protein Name: Interleukin-36 alpha (FIL1 epsilon) (Interleukin-1 epsilon) (IL-1 epsilon) (Interleukin-1 family member 6) (IL-1F6) (Interleukin-1 homolog 1) (IL-1H1)

Synonym: Il36a, Fil1e, Il1e, Il1f6, Il1h1

UniProt ID: Q9JLA2

UniProt Link: www.uniprot.org/uniprotkb/Q9JLA2/entry

Species Source: Mouse

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 160 AA

Molecular Weight: 18 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MNKEKELRAASPSLRHVQDLSSRVWILQNNILTAVPRKEQTPVVTITLLPCQYLDLTLETNRGDPTYM
GVQRPMSCLFCTKDGEQPVQLQEGGNIMEMYNKKEPVKASLFYHKKSGTTSTFESAAFPGWFIACV
SKGSCPLILTQELGEIFITDFEMIVVH

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 alpha (FIL1 epsilon) (Interleukin-1 epsilon) (IL-1 epsilon) (Interleukin-1 family member 6) (IL-1F6) (Interleukin-1 homolog 1) (IL-1H1) 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. 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, including IL-12, IL-1 beta, IL-6, TNF and IL-23 in bone marrow-derived dendritic cells (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 cultured CD4(+) T-cells and splenocytes. May play a role in pro-inflammatory effects in the lung: induces the expression of CXCL1 and CXCL2 in the lung, and the expression of TNF, IL-36c, IL-1A, IL-1B, CXCL1 and CXCL2 in isolated splenic CD11c(+) alveolar macrophages. May be involved in T-cell maturation by stimulating the surface expression of CD40 and modestly CD80 and CD86 in splenic CD11c(+) cells. May be involved in CD4(+) T-cell proliferation. Induces NF-kappa B activation in macrophages.

Subcellular Localization: Cytoplasm . Secreted . Note=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.

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.