



# Recombinant Protein Technical Manual

## Recombinant Mouse IL1F6/IL36A Protein

RPES1924

### Product Data:

**Product SKU:** RPES1924

**Size:** 10µg

**Species:** Mouse

**Expression host:** E. coli

**Uniprot:** Q9JLA2

### Protein Information:

**Molecular Mass:** 17.3 kDa

**AP Molecular Mass:** 16 kDa

**Tag:**

**Bio-activity:**

**Purity:** > 95 % as determined by SDS-PAGE

**Endotoxin:** < 1.0 EU per µg as determined by the LAL method.

**Storage:** Lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.

**Shipping:** This product is provided as lyophilized powder which is shipped with ice packs.

**Formulation:** Lyophilized from a 0.2 µm filtered solution of PBS, pH7.4.

**Reconstitution:** Please refer to the printed manual for detailed information.

**Application:**

**Synonyms:** Interleukin-36 alpha;IL36a;FIL1 epsilon;Interleukin epsilon;IL epsilon;nterleukin family member 6;ILF6;Interleukin homolog 1;ILH1;Fil1e; IL1e; IL1f6; IL1h1

## Immunogen Information:

**Sequence:** Arg8-His160

## Background:

Interleukin-36 alpha (IL-36a) is a member of the IL family. IL-1 $\alpha$ , IL-1 $\beta$  and IL-8 are potent inflammatory cytokines whose activities are dependent on heterodimeric receptors of the ILR superfamily, and which are regulated by soluble antagonists. IL-36a 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. It is a 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 system with which it shares the coreceptor IL1RAP. It 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. It induces the production of proinflammatory cytokines, including IL-2, IL-6, IL-17, TNF-alpha and IL-23 in bone marrow-derived dendritic cells (BMDCs). Moreover, it is involved in dendritic cell maturation by stimulating the surface expression of CD80, CD86 and MHC class II and can induce the production of IFN-gamma, IL-4 and IL-7 by cultured CD4+ T cells and splenocytes. IL-36a may play a role in proinflammatory effects in the lung: induces the expression of CXCL1 and CXCL2 in the lung, and the expression of TNF-alpha, IL-36c, IL-1A, IL-1B, CXCL1 and CXCL2 in isolated splenic CD11c+ alveolar macrophages. It may be involved in T cell maturation by stimulating the surface expression of CD40 and modestly CD80 and CD86 in splenic CD11c+ cells and CD4+ T cell proliferation.