

## 32-7601: Recombinant Mouse Interleukin-36 a/IL36a/IL-1F6

**Gene :** IL36a  
**Gene ID :** 54448  
**Uniprot ID :** Q9JLA2

### Description

Source: E.coli.  
MW :17.27kD.

Recombinant Mouse Interleukin-36 alpha is produced by our E.coli expression system and the target gene encoding Arg8-His160 is expressed. Mouse Interleukin-36 alpha(IL-36a) is a member of the IL-1 family. IL-1 $\alpha$ , IL-1 $\beta$  and IL-18 are potent inflammatory cytokines whose activities are dependent on heterodimeric receptors of the IL-1R superfamily, and which are regulated by soluble antagonists. IL36a is expressed in many cells, including monocytes, B cells, and T cells, immune system and fetal brains. IL36a 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-1 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-12, IL-1 $\beta$ , IL-6, 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-17 by cultured CD4+ T cells and splenocytes. IL36a 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.

### Product Info

**Amount :** 10  $\mu$ g / 50  $\mu$ g  
**Content :** Lyophilized from a 0.2  $\mu$ m filtered solution of PBS, pH7.4.  
**Storage condition :** 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.  
**Amino Acid :** MRAASPSLRHVQDLSSRVWILQNNILTAVPRKEQTPVPTITLLPCQYLDLTETNRGDPTYMGVQRP  
MSCLFCTKDGEQPVQLGEGNIMEMYNKKEPVKASLFYHKKSGTTSTFESAAPGWFIACVSKGS  
CPLILTQELGEIFITDFEMIVVH

### Application Note

Always centrifuge tubes before opening. Do not mix by vortex or pipetting. It is not recommended to reconstitute to a concentration less than 100  $\mu$ g/ml. Dissolve the lyophilized protein in ddH<sub>2</sub>O. Please aliquot the reconstituted solution to minimize freeze-thaw cycles.

**Endotoxin :** Less than 0.1 ng/ $\mu$ g (1 IEU/ $\mu$ g) as determined by LAL test.