



# Recombinant Human IL-36 alpha

20171219BB



**FOR RESEARCH ONLY! NOT FOR HUMAN USE!**

<b>Cat.-no.:</b>	<b>100-160S</b>
Size:	2 µg
Lot. No.:	According to product label

### Sequence

```
MKIDTPQQGS IQDINHRVWV IQDQTLIAVP RKDRMSPVTI  
ALISCRHVET LEKDRGNPIY LGLNGLNLCL MCAKVGDPPT  
LQLKEKDIMD LYNQPEPVKS FLFYHSQSGR NSTFESVAFP  
GWFIAVSSEG GCPLILTQEL GKANTTDFGL TMLF
```

### Database References

<b>Protein RefSeq:</b>	NP_055255.1
<b>Uniprot ID:</b>	Q9UHA7
<b>mRNA RefSeq:</b>	NM_014440.2

## Scientific Background

<b>Gene-ID (NCBI):</b>	27179
<b>Synonyms:</b>	Interleukin-36 $\alpha$ , IL36A, Interleukin-1 family member 6 (IL-1F6), FIL1 $\epsilon$ (FIL1E), Interleukin-1 $\epsilon$ (IL1E)

The IL-1 family is comprised of 11 structurally related ligands, including recently re-named IL-36 alpha (IL-1F6), beta (IL-1F8), and gamma (IL-1F9). IL-36 alpha is highly expressed in psoriatic plaques, as are IL-36 beta and IL-36 gamma, and is the only IL-1 family member found to be expressed by T-cells, as well as monocytes and B-cells. Primarily found in skin and lymphoid tissues, IL-36 alpha is also found to a lesser extent in tissues of the fetal brain, trachea, stomach, and intestine. IL-36 alpha signals through a combination of the IL-1Rrp2 (IL-1R6) receptor, which is primarily expressed on certain dendritic cells, and the widely expressed IL-RAcP (IL-1 receptor accessory protein). IL-36 alpha also functions as an agonist of NF-kappaB and MAPK pathways, and induces the production of proinflammatory cytokines and chemokines, including IL-6, IL-8, BD-2, and BD-3. Recombinant human IL-36 alpha is a 17.2 kDa protein containing 154 amino acid residues.

## Product Specifications

<b>Expressed in</b>	E. coli
<b>Purity</b>	> 98% by SDS-PAGE & HPLC analysis
<b>Endotoxin level</b>	< 0.1 ng /µg of protein (<1EU/µg).
<b>Formulation</b>	lyophilized
<b>Length (aa):</b>	154
<b>MW:</b>	17.2 kDa

**Stability:** The lyophilized protein is stable at room temperature for 1 month and at 4°C for 6 months. Reconstituted working aliquots are stable for 1 week at 2°C to 8°C and for 3 months at -20°C to -80°C.

**Reconstitution:** Centrifuge the vial prior to opening. Reconstitute in **1x PBS, pH 7.2 to a concentration of 0.2 mg/ml**. *Do not vortex*. This solution can be stored at 2-8°C for up to 1 week. For extended storage, it is recommended to further dilute in a buffer containing a carrier protein (example 0.1% BSA) and store in working aliquots at -20°C to -80°C.



**AVOID REPEATED FREEZE AND THAW CYCLES!**

**Biological Activity:** Measured by its ability to inhibit secretion of IL-8 by A431 cells in the presence of IL-36 gamma.