

## Recombinant Human Interleukin-36 alpha/IL-36 alpha

**Catalog Number:** PKSH033873

**Note:** Centrifuge before opening to ensure complete recovery of vial contents.

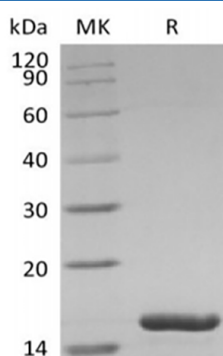
### Description

<b>Species</b>	Human
<b>Source</b>	E.coli-derived Human IL-36A;IL-36 alpha protein Lys6-Phe158, with an C-terminal His
<b>Calculated MW</b>	18.1 kDa
<b>Observed MW</b>	17 kDa
<b>Accession</b>	Q9UHA7
<b>Bio-activity</b>	Measure by its ability to induce IL-8 secretion in human PBMCs.The ED <sub>50</sub> for this effect is <0.7 ng/mL.

### Properties

<b>Purity</b>	> 98 % as determined by reducing SDS-PAGE.
<b>Endotoxin</b>	< 0.1 EU per µg of the protein as determined by the LAL method.
<b>Storage</b>	Generally, 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.
<b>Shipping</b>	This product is provided as lyophilized powder which is shipped with ice packs.
<b>Formulation</b>	Lyophilized from sterile PBS, pH 7.4. Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.
	Please refer to the specific buffer information in the printed manual.
<b>Reconstitution</b>	Please refer to the printed manual for detailed information.

### Data



> 98 % as determined by reducing SDS-PAGE.

### Background

### For Research Use Only

Human Interleukin-36 $\alpha$  (IL-36 $\alpha$ ) is a secreted cytokine that belongs to the Interleukin 1 cytokine family. IL-36 $\alpha$  is expressed in the immune system and the fetal brain, but not in other tissues or multiple hematopoietic cell lines. IL-36 $\alpha$  is the only IL-1 family member found to be expressed on T-cells. IL-36 $\alpha$  and IL-1F8 are involved in the regulation of adipose tissue gene expression. Importantly, IL-36 $\alpha$  inhibits PPAR $\gamma$  expression, which may lead to a reduction in adipocyte differentiation suggesting metabolic effects of this cytokine. IL-36 $\alpha$ , along with IL-1F8 and IL-1F9, has been shown to act as an agonist by activating the pathway involving NF $\kappa$ B and MAPK in an IL-1Rrp2 dependent manner. This suggests that IL-36 $\alpha$  may signal in a similar fashion to IL-1 and IL-18 in having a binding receptor which upon ligation, recruits a second receptor as a signaling component, forming an active heterodimeric receptor complex.