# Recombinant Mouse IL-36 alpha protein(His Tag)

**Catalog Number: PKSM041480**

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

## Description

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|---|---|
| **Species** | Mouse |
| **Source** | E.coli-derived Mouse IL-36 alpha protein Met 1-His 160, with an C-terminal His |
| **Calculated MW** | 18.8 kDa |
| **Observed MW** | 17-25 kDa |
| **Accession** | Q9JLA2 |
| **Bio-activity** | Measure by its ability to induce IL-6 secretion in 3T3 cells.The $ED_{50}$ for this effect is <15 ng/mL.The specific activity of recombinant mouse IL-36 alpha is > 1 x $10^5$ IU/mg. |

## Properties

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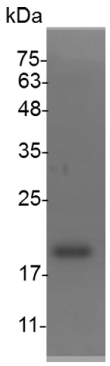
|---|---|
| **Purity** | > 98 % as determined by reducing SDS-PAGE. |
| **Endotoxin** | < 0.1 EU per μg of the protein as determined by the LAL method. |
| **Storage** | Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80 ℃. Reconstituted protein solution can be stored at 4-8℃ for 2-7 days. Aliquots of reconstituted samples are stable at < -20℃ for 3 months. |
| **Shipping** | This product is provided as lyophilized powder which is shipped with ice packs. |
| **Formulation** | Lyophilized from sterile PBS, pH 7.4.<br>Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.<br>Please refer to the specific buffer information in the printed manual. |
| **Reconstitution** | Please refer to the printed manual for detailed information. |

## Data




> 98 % as determined by reducing SDS-PAGE.

## Background

Human Interleukin-36α (IL-36α) is a secreted cytokine that belongs to the Interleukin 1 cytokine family. IL-36α is expressed in the immune system and the fetal brain, but not in other tissues or multiple hematopoietic cell lines. IL-36α is the only IL-1 family member found to be expressed on T-cells. IL-36α and IL-1F8 are involved in the regulation of adipose tissue gene expression. Importantly, IL-36α inhibits PPARγ expression, which may lead to a reduction in adipocyte differentiation suggesting metabolic effects of this cytokine. IL-36α, along with IL-1F8 and IL-1F9, has been shown to act as an agonist by activating the pathway involving NFκB and MAPK in an IL-1Rrp2 dependent manner. This suggest that IL-36α 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.