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

Catalog Number: PKSM041480

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

#### Description

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  $> 1 \times 10^5$  IU/mg.

#### **Properties**

**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

°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 sterile PBS, pH 7.4.

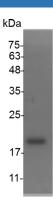
Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants

before lyophilization.

Please refer to the specific buffer information in the printed manual.

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

#### Data



> 98 % as determined by reducing SDS-PAGE.

### Background

# Elabscience®

#### Elabscience Bionovation Inc.

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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 suggest 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.

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