

# Mouse IL-1F6 / IL-1 epsilon Protein



Sino Biological  
Biological Solution Specialist

Catalog Number: 50095-HNAE

## General Information

### Gene Name Synonym:

FIL1; FIL1(EPSILON); FIL1E; IL-1F6; IL1(EPSILON); IL1F6

### Protein Construction:

A DNA sequence encoding the mouse IL1F6 (Q9JLA2-1) (Met 1-His 160) was expressed and purified.

**Source:** Mouse

**Expression Host:** E. coli

## QC Testing

**Purity:** > 97 % as determined by SDS-PAGE

### Endotoxin:

Please contact us for more information.

### Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

**Predicted N terminal:** Met 1

### Molecular Mass:

The recombinant mouse IL1F6 consisting of 160 amino acids and migrates with an apparent molecular mass of 18 kDa as predicted.

### Formulation:

Lyophilized from sterile PBS, pH 7.4

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

## Usage Guide

### Storage:

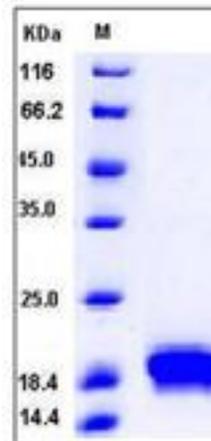
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

**Avoid repeated freeze-thaw cycles.**

### Reconstitution:

Detailed reconstitution instructions are sent along with the products.

## SDS-PAGE:



## Protein Description

Interleukin-1 family member 6 (IL-1F6), also known as interleukin 36, alpha (IL36A), is a pro-inflammatory cytokine which plays an important role in innate and adaptive immunity. IL-1F6 activates MAPK and NF- $\kappa$ B pathways and is produced by many different cells. This cytokine is a family member of interleukin-1 (IL-1) and plays an important role in the pathophysiology of several diseases. It has been reported that IL-1F6 and IL-1F8, in addition to IL-1F9, activate the pathway leading to NF- $\kappa$ B in an IL-1Rrp2-dependent manner in Jurkat cells as well as in multiple other human and mouse cell lines. Activation of the pathway leading to NF- $\kappa$ B by IL-1F6 and IL-1F8 follows a similar time course to activation by IL-1 $\beta$ , suggesting that signaling by the novel family members occurs through a direct mechanism. In a mammary epithelial cell line, NCI/ADR-RES, which naturally expresses IL-1Rrp2, all three cytokines signal without further receptor transfection. IL-1Rrp2 antibodies block activation of the pathway leading to NF- $\kappa$ B by IL-1F6, IL-1F8, and IL-1F9 in both Jurkat and NCI/ADR-RES cells. Thus IL-1F6, IL-1F8, and IL-1F9 signal through IL-1Rrp2 and IL-1RAcP.

## References

1. Tripodi D, *et al.* (2012) IL-36 a new member of the IL-1 family cytokines. *J Biol Regul Homeost Agents.* 26(1):7-14.
2. Towne JE, *et al.* (2004) Interleukin (IL)-1F6, IL-1F8, and IL-1F9 signal through IL-1Rrp2 and IL-1RAcP to activate the pathway leading to NF- $\kappa$ B and MAPKs. *J Biol Chem.* 279(14): 13677-88.
3. Kumar S, *et al.* (2000) Identification and initial characterization of four novel members of the interleukin-1 family. *J Biol Chem.* 275(14): 10308-14.

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