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# Recombinant Mouse Interleukin-33/IL-33 Protein

Catalog Number: PKSM041090

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

#### **Description**

Species Mouse

Source E.coli-derived Mouse Interleukin-33/IL-33 protein Ser109-Ile266, with an C-terminal

His

Calculated MW18.5 kDaObserved MW17-25 kDaAccessionQ8BVZ5

**Bio-activity** Measure by its ability to induce proliferation in D10.G4.1 cells. The ED<sub>50</sub> for this

effect is <40 pg/mL. The specific activity of recombinant mouse IL-33 is  $> 2 \times 10^7$ 

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.

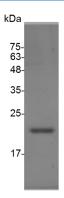
Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants

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

#### For Research Use Only

#### Elabscience Bionovation Inc.



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Mouse Interleukin 33 (IL-33) is a 30 kDa proinflammatory cytokine which may also regulates gene transcription in producer cells. IL-33 is constitutively expressed in smooth muscle and airway epithelia. IL-33 was identified based on sequence and structural homology with IL-1 family cytokines. It is up-regulated in arterial smooth muscle, dermal fibroblasts, and keratinocytes following IL-1 alpha or IL-1 beta stimulation. IL-33 is structurally related to IL-1, which induces helper T cells to produce type 2 cytokines and acts through the receptor IL1RL-1. BindingIL-33 to this receptor activates NF-kappa-B and MAP kinases and induces in vitro Th2 cells to produce cytokines. In vivo, IL-33 induces the expression of IL-4, IL-5, IL-13 and also leads to severe pathological changes in mucosal organs.

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