## Recombinant Human IL-1 beta/IL1B Protein

Catalog Number: PKSH031839



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

## **Description**

Synonyms IL-1;IL-1 beta;IL-1B;IL1-BETA;IL1F2

Species Humar Expression Host E.coli

 Sequence
 Ala 117-Ser 269

 Accession
 NP\_000567.1

Calculated Molecular Weight 17 kDa
Observed molecular weight 17 kDa
Tag None

Bioactivity 1. Immobilized recombinant human IL1B at 2 μg/mL (100μl/well) can bind

recombinant human IL1R2 with a linear range of 6. 25-400 ng/ml.

 $2.\ Measured in a cell proliferation assay using D10.G4. 1 mouse helper T cells. The$ 

ED50 for this effect is typically 2-8 pg/mL.

3. Immobilized human IL1B at 10 µg/mL (100 µl/well) can bind human IL1R1, The

EC50 of human IL1R1 is 0.48  $\mu$ g/mL.

4. Measured by its ability to induce Interferon gamma secretion by human natural

killer lymphoma NK-92 cells. The ED50 for this effect is 0.4-2 ng/mL.

## **Properties**

**Purity** > 95 % as determined by reducing SDS-PAGE.

**Endotoxin** Please contact us for more information.

**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

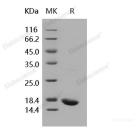
Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as

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



> 95 % as determined by reducing SDS-PAGE.

# Background

#### For Research Use Only

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Interleukin-1 beta (IL1 beta or IL1B) also known as catabolin, is a member of the interleukin 1 cytokine family. IL1 is a pleiotropic cytokine. It is involved in the inflammatory response, cell growth, and tissue repair in the cortex. The IL1 superfamily consists of three members, IL1A (IL1 alpha), IL1B (IL1 beta), and IL1 receptor antagonist (IL1Ra). In clinical, it has been reported that Interleukin (IL)-1 may influence Th1 / Th2 immune responsiveness and has been implicated in the establishment of successful pregnancy. Proinflammatory interleukin (IL)-1 gene polymorphisms associated with high levels of IL-1beta activity increase the risk for hypochlorhydria and distal gastric carcinoma. IL1B polymorphisms may be involved in susceptibility to SSc. Moreover, the IL2-384-G allele may be a marker for the limited phenotype of systemic sclerosis (SSc).

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