# **Recombinant Human IRAK4 Protein**



Catalog No.: RP02130 Recombinant

### **Sequence Information**

Species Gene ID Swiss Prot Human 51135 09NWZ3-1

### Tags

N-His

#### **Synonyms**

IPD1; IMD67; REN64; IRAK-4; NY-REN-64;IRAK4; IPD1; interleukin-1 receptor-associated kinase 4;IRAK-4;NY-REN-64;REN64

### **Product Information**

Source Purification
Baculovirus-Insect > 92% by SDSCells PAGE.

### Calculated MW Observed MW

53.8 kDa 48 kDa

#### **Endotoxin**

 $< 1.0 \; \text{EU/}\mu\text{g}$  of the protein by LAL method.

#### **Formulation**

Lyophilized from a 0.22 µm filtered solution of 20mM Tris, 500mM NaCl, 0.5mM PMSF, pH 7.4.

### Reconstitution

Centrifuge the vial before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid vortex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stablizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

#### **Contact**

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### **Background**

Interleukin-1 receptor-associated kinase 4, also known as Renal carcinoma antigen NY-REN-64, IRAK-4, and IRAK4, is a member of the protein kinase superfamily, TKL Ser/Thr protein kinase family, and Pelle subfamily. IRAK4 contains one death domain and one protein kinase domain. IRAK4 is required for the efficient recruitment of IRAK1 to the IL-1 receptor complex following IL-1 engagement, triggering intracellular signaling cascades leading to transcriptional up-regulation and mRNA stabilization. It also phosphorylates IRAK1. A member of the IL-1 receptor (IL-1R)-associated kinase (IRAK) family, IRAK4, has been shown to play an essential role in Toll-like receptor (TLR)-mediated signaling. IL-1-mediated IRAK4 kinase activity in T cells is essential for the induction of IL-23R expression, Th17 differentiation, and autoimmune disease. Pharmacological blocking of IRAK4 kinase activity will retain some levels of host defense while reducing the levels and duration of inflammatory responses, which should provide bene

### **Basic Information**

#### **Description**

Recombinant Human IRAK4 Protein is produced by Baculovirus-Insect Cells expression system. The target protein is expressed with sequence (Met1-Ser460) of human IRAK4 (Accession #NP 001107654.1) fused with a 6×His tag at the N-terminus.

#### **Bio-Activity**

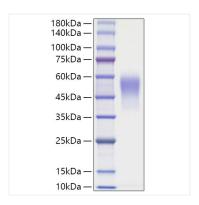
#### Storage

Store at -20°C. Store the lyophilized protein at -20°C to -80 °C up to 1 year from the date of receipt.

After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week.

Avoid repeated freeze/thaw cycles.

## **Validation Data**



Recombinant Human IRAK4 Protein was determined by SDS-PAGE under reducing conditions with Coomassie Blue.