

RP00666

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# Recombinant Mouse IL-1Ra/IL-1F3/IL-1RN Protein

Catalog No.: RP00666

Recombinant

## Sequence Information

Species	Gene ID	Swiss Prot
<I>E. coli</I>	16181	P25085

### Tags

No tag

### Synonyms

IL-1ra; F630041P17Rik;IL1RN

## Background

Interleukin-1 receptor antagonist protein (IL1rn), also known as IL-1ra, IRAP or IL1 inhibitor, is a member of the interleukin 1 cytokine family. This protein inhibits the activities of interleukin 1 alpha (IL1A) and interleukin 1beta (IL1B), and modulates a variety of interleukin 1 related immune and inflammatory responses. The mouse IL1rn gene encodes a 178 amino acids (aa) protein with a 26 aa signal peptide. Mouse IL1rn protein shares 26% and 19% identity with its homologues IL-1 beta and IL-1 alpha, respectively. IL1rn can inhibit the activity of interleukin-1 by binding to receptor IL1R1 and preventing its association with the coreceptor IL1RAP for signaling, but has no interleukin-1 like activity. Recently, a recombinant human IL1rn protein is used in the treatment of rheumatoid arthritis, an autoimmune disease in which IL-1 plays a key role.

## Product Information

### Source

<I>E. coli</I>

### Purification

≥ 95 % as determined by SDS-PAGE.

### Endotoxin

< 1 EU/μg of the protein by LAL method.

### Formulation

Lyophilized from a 0.22 μm filtered solution of PBS, pH 7.4.

### Reconstitution

Centrifuge the tube 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 stabilizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

## Basic Information

### Description

Recombinant Mouse IL-1Ra/IL-1F3/IL-1RN Protein is produced by *E. coli* expression system. The target protein is expressed with sequence (Arg27-Gln178) of mouse IL-1Ra/IL-1F3/IL-1RN (Accession #P25085) fused with an initial Met at the N-terminus.

### Bio-Activity

Measured by its ability to inhibit IL-1 alpha-dependent proliferation in D10.G4.1 mouse helper T cells. The ED<sub>50</sub> for this effect is 2.47-9.86 ng/mL in the presence of 3ng/mL of recombinant human IL-1 alpha (Catalog: RP00098), corresponding to a specific activity of 1.01×10<sup>5</sup>~4.05×10<sup>5</sup> units/mg.

### Storage

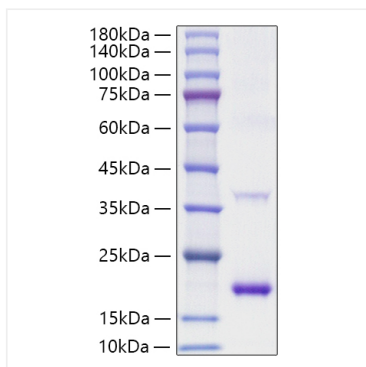
Store at -20°C. Store the lyophilized protein at -20°C to -80 °C up to 1 year from the date of receipt. After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week. Avoid repeated freeze/thaw cycles.

## Contact

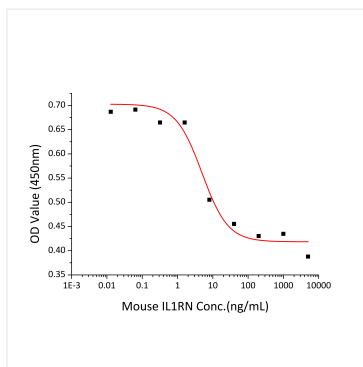
 [www.abclonal.com](http://www.abclonal.com)

\* For your safety and health, please wear a lab coat and disposable gloves when handling.

## Validation Data



Recombinant Mouse IL-1Ra/IL-1F3/IL-1RN Protein was determined by SDS-PAGE under reducing conditions with Coomassie Blue.



Recombinant Mouse IL-1Ra/IL-1F3/IL-1RN inhibit IL-1 alpha-dependent proliferation in D10.G4.1 mouse helper T cells. The ED<sub>50</sub> for this effect is 2.47-9.86 ng/mL in the presence of 3ng/mL of recombinant human IL-1 alpha(Catalog: RP00098), corresponding to a specific activity of  $1.01 \times 10^5 \sim 4.05 \times 10^5$  units/mg.