

# Recombinant human IL-1Ra/IL1RN protein

Catalog Number: ATGP3934

## PRODUCT INFORMATION

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### Expression system

E.coli

### Domain

26-177aa

### UniProt No.

P18510

### NCBI Accession No.

NP\_776214

### Alternative Names

Interleukin-1 receptor antagonist protein, IL-1RN, IL-1ra, IRAP, ICIL-1RA, IL1 inhibitor, IL1F3, IL1RA

## PRODUCT SPECIFICATION

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### Molecular Weight

17.2 kDa (153aa), confirmed by MALDI-TOF

### Concentration

1mg/ml (determined by Bradford assay)

### Formulation

Liquid. In Phosphate-Buffered Saline (pH7.4)

### Purity

> 95% by SDS - PAGE

### Endotoxin level

< 1 EU per 1ug of protein (determined by LAL method)

### Biological Activity

The activity is determined by the IFN-g ELISA in a using NK-92 human natural killer cells. The ED50 range  $\leq 10$  ng/ml.

### Tag

Non-Tagged

### Application

SDS-PAGE, Bioactivity

### Storage Condition

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

## BACKGROUND

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# Recombinant human IL-1Ra/IL1RN protein

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## Description

IL-1RA/IL-1F3, also known as interleukin-1 receptor antagonist, is a glycosylated protein and a powerful anti-inflammatory agent. IL-1RA is a pan-physiological inhibitor of IL-1 that prevents the activation of IL-1 receptors by inhibiting IL-1 binding to its receptors. It can inhibit angiogenesis by blocking the activation of the IL-1 $\alpha$ /PI3K/NF- $\kappa$ B pathway in IL-1-producing human colon cancer cells. Also, Several autoimmune and inflammatory diseases have been associated with an allelic polymorphism of the IL-1RA. Recombinant human IL-1RA was expressed in E. coli and purified by using conventional chromatography techniques.

## Amino acid Sequence

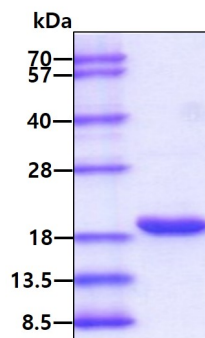
MRPSGRKSSK MQAFRIWDVN QKTFYLRNNQ LVAGYLQGN VNLEEKIDVV PIEPHALFLG IHGGKMCLSC VKSGDETRLQ LEAVNITDLS ENRKQDKRFA FIRSDSGPTT SFESAACPGW FLCTAMEADQ PVSLTNMPDE GVMVTKFYFQ EDE

## General References

- Capper., et al. (2004) Clin. Exp. Immunol. 138:348
- Roberge CJ., et al. (1994) Journal of Immunology. 152: 5485-94
- Carter DB., et al. (1990) Nature. 344: 633-7

## DATA

### SDS-PAGE



3 $\mu$ g by SDS-PAGE under reducing condition and visualized by coomassie blue stain

### Biological Activity

Human IL-1ra/IL-1F3 stimulates IFN- $\gamma$  secretion of the NK-92 human natural killer cells. The ED50 range  $\leq$ 10 ng/ml.

