

Human IL-1RA / IL1RN Protein

Catalog Number: 10123-HNAE



Sino Biological Inc.

Biological Solution Specialist

General Information

Gene Name Synonym:

IL1RN, ICIL-1RA, IL-1ra3, IL1F3, IL1RA, IRAP, MGC10430

Protein Construction:

A DNA sequence encoding the mature form of human IL1RA isoform1 (NP_776214.1) (Arg 26-Glu 177) was expressed.

Source: Human

Expression Host: E. coli

QC Testing

Purity: > 97 % as determined by SDS-PAGE

Bio-Activity

1. Measured by its binding ability in a functional ELISA. Immobilized human IL1RA at 10 µg/ml (100 µl/well) can bind human IL1R2-Fc (Cat:10111-H02H), The EC50 of human IL1R2-Fc (Cat:10111-H02H) is 0.04-0.1 µg/mL.

2. Measured by its binding ability in a functional ELISA. Immobilized human IL1RA at 10 µg/ml (100 µl/well) can bind human IL1R1-Fc (Cat:10126-H02H), The EC50 of human IL1R1-Fc (Cat:10126-H02H) is 0.08-0.2 µg/mL.

Endotoxin:

Please contact us for more information.

Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: Met

Molecular Mass:

The recombinant human IL1RA consists of 153 amino acids and predicts a molecular mass of 17.3 kDa which is also estimated by SDS-PAGE.

Formulation:

Lyophilized from sterile PBS, pH 7.4

Normally 5 % - 8 % trehalose and mannitol are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

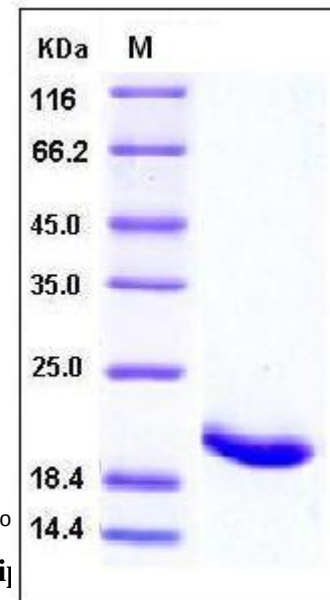
Usage Guide

Storage:

Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

SDS-PAGE:



Reconstitution:

Detailed reconstitution

≥ products.

Protein Description

IL1 is an important cytokine that affects multiple cell types, often in concert with another cytokine, tumor necrosis factor (TNF). There are two forms of IL1, IL1 α and IL1 β , whose function are mediated by the two specific receptors on the cell surfaces. The IL1 receptor antagonist (IL1RA), formerly called the IL1 inhibitor, is a member of the IL1 cytokine family which binds to the same receptor (IL1R) as IL1, and thus prevents IL1 from signal transduction without interaction with the IL1 molecules. In terms of protein similarities, IL1RA is more closely related to IL1 β than it is to IL1 α . IL1RA modulates a variety of IL1-related immune and inflammatory responses, and accordingly, the balance between IL1 and IL1Ra in local tissues plays an important role in the susceptibility to and severity of many diseases. IL1RA is suggested to have possible therapeutic applications in treatment of sepsis, rheumatoid arthritis, and chronic myelogenous leukemia. Four alternatively spliced transcript variants encoding distinct isoforms have been identified, and the isoform 1 of IL1RA is secreted from monocytes, macrophages, neutrophils, and other cells.

References

1. Haskill, S. et al., 1991, Proc. Natl. Acad. Sci. USA. 88: 3681-3685.
2. Sehoul, J. et al., 2002, Anticancer. Res. 22: 3421-3424.
3. Arend, W.P. et al., 1998, Annu. Rev. Immunol. 16: 27-55.
4. Dinarello, C.A. et al., 1997, Cytokine. Growth. Factor. Rev. 8: 253-265.

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