



Interleukin-1 Receptor Antagonist, mouse recombinant (rmIL1RA)

Catalog No: 97272
Lot No: XXXXX
Source: *E. coli*
Synonyms: IRAP, IL1F3, IL1RA, IL-1ra3, ICIL-1RA, IL1RN, IL1 inhibitor, IL-1ra, F630041P17Rik

Background

Interleukin-1 ra is a member of the interleukin 1 cytokine family. This protein inhibits the activities of interleukin 1, alpha (IL1A) and interleukin 1, beta (IL1B), and modulates a variety of interleukin 1 related immune and inflammatory responses. This gene and five other closely related cytokine genes form a gene cluster spanning approximately 400 kb on chromosome 2. A polymorphism of this gene is reported to be associated with increased risk of osteoporotic fractures and gastric cancer. Four alternatively spliced transcript variants encoding distinct isoforms have been reported.

Description

IL-1RA mouse recombinant produced in *E. coli* is a single, non-glycosylated polypeptide chain containing 153 amino acids and having a molecular mass of 17.4 kDa. IL1ra is purified by proprietary chromatographic techniques.

Physical Appearance

Sterile filtered white lyophilized (freeze-dried) powder.

Formulation

The protein was lyophilized from a concentrated (1 mg/ml) solution in water containing NaHCO_3 .

Solubility

It is recommended to reconstitute the lyophilized Interleukin-1ra in sterile 18 M Ω -cm H₂O not less than 100 $\mu\text{g/ml}$, which can then be further diluted to other aqueous solutions.

Stability

Lyophilized Interleukin 1ra, although stable at room temperature for 3 weeks, should be stored desiccated below -18°C . Upon reconstitution IL-1ra should be stored at 4°C between 2-7 days and for future use below -18°C . For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

Purity

Greater than 98.0% as determined by (a) Analysis by Gel Filtration, (b) Analysis by SDS-PAGE.

Amino Acid Sequence

The sequence of the first six N-terminal amino acids was determined and was found to be Ala-Cys-Arg-Pro-Ser-Gly.

Activity

The mouse IL-1Ra is capable of inhibiting IL-1-alpha activity in helper T cell line D10.G4.1.

Usage

This product is offered by Biomol for research purposes only. Not for diagnostic purposes or human use. It may not be resold or used to manufacture commercial products without written approval of Biomol GmbH.

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