

Recombinant Mouse Interleukin-1 Receptor Antagonist (rm IL-1RA / IL1F3)

Synonyms: IRAP, ICIL-1RA, IL1 inhibitor,

Introduction: Interleukin-1 ra is a member of the Interleukin 1 cytokine family. This protein inhibits the activities of Interleukin-1alpha (IL-1a) and Interleukin-1beta (IL-1b) 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: Recombinant mouse Interleukin-1 Receptor antagonist produced in E.Coli is a single, non-glycosylated polypeptide chain containing 153 amino acids and having a molecular mass of 17.4kDa. The IL1ra is purified by proprietary chromatographic techniques.

Source: *Escherichia Coli*.

Physical Appearance: Sterile filtered white lyophilized (freeze-dried) powder.

Formulation: Lyophilized from a 0.22 µm filtered solution in 50 mM sodium citrate, 150 mM NaCl, pH 5.5. The sample size of 1µg contains Trehalose 5% (w/vol) for better recovery.

Solubility: It is recommended to reconstitute the lyophilized rm IL-1ra in sterile H₂O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

Stability: Lyophilized rm IL-1ra, although stable at room temperature for 3 weeks, should be stored desiccated below -18° C. Upon reconstitution rm 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: 95.0% as determined by SDS-PAGE.

Endotoxicity: The endotoxin level is less than 1 EU / µg determined by LAL method.

Amino acid sequence: MRPSGKRPK MAFRIWDTN QKTFYLRNNQ LIAGYLQGN IKLEEKIDMVP
IDLHSVFLG IHGGKLCCLSC AKSGDDIKLQ LEEVNITDLS KNKEEDKRFT FIRSEKGPTT SFESAACPGW
FLCTTLEADR PVSLTNTPEE PLIVTKFYFQ EDQ

Biological Activity: Determined by dose dependent inhibition of hIL-1 induced proliferation of murine cell line D10G4.1. The ED₅₀ in the presence of 50 pg/ml rhIL-1 is < 10ng/ml.

This material is offered for **research only**. Not for use in human. For in vitro use only. ImmunoTools will not be held responsible for patent infringement or other violations that may occur with the use of our products.

<i>small</i>	5 µg	Cat.N°	12344870
<i>medium</i>	20 µg	Cat.N°	12344874
<i>large</i>	100 µg	Cat.N°	12344876
<i>x-large</i>	500 µg	Cat.N°	12344877

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