

# Recombinant Human Interleukin-1 Receptor Antagonist (rh IL-1RA / IL1F3)

**Synonyms:** IRAP, ICIL-1RA, IL1RN, IL1 inhibitor,

**Introduction:** Interleukin-1RA 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 human Interleukin-1 Receptor antagonist produced in E.Coli is a non-glycosylated, N-terminal methionyl form of the human naturally-occurring polypeptide chain containing 153 amino acids and having a molecular mass of 17.0 kDa.

**Source:** *Escherichia Coli*.

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

**Formulation:** lyophilized with no additives.  
The samples of 1µg contain Trehalose 5% (w/vol) for better recovery

**Solubility:** It is recommended to reconstitute the lyophilized rh IL-1ra in sterile H<sub>2</sub>O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

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

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

**Amino acid sequence:** The sequence of the first five N-terminal amino acids was determined and was found to be Met-Arg-Pro-Ser-Gly.

**Biological Activity:** The ED<sub>50</sub> as determined by the dose-dependant inhibition of IL-1 stimulation of D10S cells was found to be 0.5 ng/ml corresponding to a specific activity of 2 x 10<sup>6</sup> IU/mg.

This material is offered for **research use 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>	20 µg	Cat.N°	11344874
<i>medium</i>	100 µg	Cat.N°	11344876
<i>large</i>	500 µg	Cat.N°	11344877

**ImmunoTools** Excellent Quality - Advantageously priced

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