

**IL-1RA**  
**Catalog # PVGS1029****Specification**

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**IL-1RA - Product Information**

Primary Accession [P18510](#)  
**Species**  
Human

**Sequence**  
Arg26-Glu177

**Purity**  
> 96% as analyzed by SDS-PAGE  
> 96% as analyzed by HPLC

**Endotoxin Level**  
< 1 EU/ µg of protein by LAL method

**Biological Activity**  
Fully biologically active when compared to standard. The ED<sub>50</sub> as determined by inhibiting IL-1α-dependent proliferation of murine D10S cells is less than 40.0 ng/ml, corresponding to a specific activity of > 2.5 × 10<sup>4</sup> IU/mg in the presence of 50.0 pg/ml rHuIL-1α.

**Expression System**  
E. coli

**Theoretical Molecular Weight**  
17.1 kDa

Formulation **Lyophilized from a 0.2 µm filtered solution in PBS, pH 7.4.**

**Reconstitution**  
It is recommended that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute the lyophilized powder in sterile distilled water or aqueous buffer containing 0.1% BSA to a concentration of 0.1-1.0 mg/ml.

**Storage & Stability**  
Upon receiving, this product remains stable for up to 6 months at -70°C or -20°C. Upon reconstitution, the product should be stable for up to 1 week at 4°C or up to 3 months at -20°C. Avoid repeated freeze-thaw cycles.

**IL-1RA - Additional Information**

**Gene ID** 3557

**Other Names**  
Interleukin-1 receptor antagonist protein, IL-1RN, IL-1ra, IRAP, ICIL-1RA, IL1 inhibitor, Anakinra, IL1RN, IL1F3, IL1RA

**Target Background**

Interleukin-1 receptor antagonist (IL-1ra) is a member of the IL-1 family. Endogenous IL-1ra is produced in numerous animal disease models as well as in human autoimmune and chronic inflammatory diseases. It binds to IL-1 receptors in competition with IL-1, but does not elicit intracellular response from this binding. Its role in counteracting the proinflammatory effects of IL-1 is being studied by numerous research groups. IL-4 and IL-13 have been shown to amplify the stimulatory effect of IL1-beta on the production of soluble and intracellular forms of IL1-ra. The regulated expression of IL1ra in various cell types has been shown to be influenced by cytokines. In synovial fibroblasts the synthesis of IL-1ra is markedly enhanced by IL-1 , TNF-alpha , or PDGF.

**IL-1RA - Protein Information**

**Name** IL1RN

**Synonyms** IL1F3, IL1RA

**Function**

Anti-inflammatory antagonist of interleukin-1 family of proinflammatory cytokines such as interleukin-1beta/IL1B and interleukin-1alpha/IL1A. Protects from immune dysregulation and uncontrolled systemic inflammation triggered by IL1 for a range of innate stimulatory agents such as pathogens.

**Cellular Location**

[Isoform 1]: Secreted [Isoform 3]: Cytoplasm.

**Tissue Location**

The intracellular form of IL1RN is predominantly expressed in epithelial cells

**IL-1RA - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

**IL-1RA - Images**