

## Recombinant Human Interleukin-1 Receptor Antagonist Protein

### Information

<b>Gene ID</b>	3557
<b>Accession #</b>	P18510
<b>Alternate Names</b>	IL-1RN, IRAP
<b>Source</b>	Escherichia coli.
<b>M.Wt</b>	Approximately 17.1 kDa, a single non-glycosylated polypeptide chain containing 152 amino acids.
<b>AA Sequence</b>	RPSGRKSSKM QAFRIWDVNQ KTFYLRNNQL VAGYLQGPV NLEEKIDVVP IEPHALFLGI HGGKMCLSCV KSGDETRLQL EAVNITDLSE NRKQDKRFAF IRSDSGPTTS FESAACPGWF LCTAMEADQP VSLTNMPDEG VMVTKFYFQE DE
<b>Appearance</b>	Sterile Filtered White lyophilized (freeze-dried) powder.
<b>Stability &amp; Storage</b>	Use a manual defrost freezer and avoid repeated freeze-thaw cycles - 12 months from date of receipt, -20 to -70 °C as supplied - 1 month, 2 to 8 °C under sterile conditions after reconstitution - 3 months, -20 to -70 °C under sterile conditions after reconstitution
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered concentrated solution in PBS, pH 7.4.
<b>Reconstitution</b>	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at ≤ -20 °C. Further dilutions should be made in appropriate buffered solutions.
<b>Biological Activity</b>	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 ng/ml, corresponding to a specific activity of > 2.5 × 10 <sup>4</sup> IU/mg in the presence of 50 pg/ml rHuIL-1α
<b>Shipping Condition</b>	Gel pack.
<b>Handling</b>	Centrifuge the vial prior to opening.
<b>Usage</b>	For Research Use Only! Not to be used in humans.

### Components and Storage

Components	100µg	500µg
Recombinant Human Interleukin-1 Receptor Antagonist Protein	100µg	500µg

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- 12 months from date of receipt, -20 to -70 °C as supplied
- 1 month, 2 to 8 °C under sterile conditions after reconstitution
- 3 months, -20 to -70 °C under sterile conditions after reconstitution

## Quality Control

Purity	> 96 % by SDS-PAGE and HPLC analyses.
Endotoxin	Less than 1 EU/μg of rHuIL-1RA as determined by LAL method.

## Description

白介素1受体拮抗剂(IL-1RA)是IL-1家族的成员。IL1RA由免疫细胞、上皮细胞和脂肪细胞等多种细胞分泌，是IL1 β 促炎作用的天然抑制剂。该蛋白抑制白介素1 α (IL1A)和白介素1 β (IL1B)的活性，并调节各种与白介素1相关的免疫和炎症反应。IL-4和IL-13可增强IL-1-β 对细胞内和可溶性IL-1-RA产生的刺激作用。IL1RA在不同细胞类型中的调节表达已被证明受到细胞因子的影响。在滑膜成纤维细胞中，IL-1、TNF-α 或PDGF显著促进IL-1RA的合成。该蛋白与IL-1 β 的氨基酸同源率为26%，与IL-1 α 的同源率为19%。

## Reference

1. Dinarello, C.A. 1994. FASEB J, 8: 1314-25
2. Perrier, S., F. Darakhshan, and E. Hajduch. 2006. FEBS Lett, 580: 6289-94
3. Dinarello, C.A. 1994. FASEB J, 8: 1314-25.

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