

# Recombinant Human Interleukin-1 Receptor Antagonist

Human, Recombinant (IL1RN)

Expressed in *E. coli*

Cat. No. CRP0826

Lot. No. (See product label)

## PRODUCT INFORMATION

**Description:** Interleukin-1 receptor antagonist (IL-1RN) is a member of the IL-1 family. Endogenous IL-1RN 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.

**Amino-Acid Sequence:** 153aa (The sequence of the first five N-terminal amino acids was determined and was found to be Met-Arg-Pro-Ser-Gly.), non-glycosylated.

**M. W. :** 17,258 Da

**Recombinant:** Expressed in *E. coli*

**Purity:** >95% as determined by RP-HPLC, FPLC and SDS-PAGE .

**Formulation:** IL-1RN was lyophilized after extensive dialysis against PBS.

**Specific Activity:** The ED50 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  $2.0 \times 10^6$  IU/mg.

**Endotoxin:** Less than 0.1ng/μg (1IEU/μg) of IL-1RN.

**Reconstitution:** It is recommended to reconstitute the lyophilized rHuIL-1RN in sterile 18MΩ-cm H<sub>2</sub>O not less than 100μg/ml, which can then be further diluted to other aqueous solutions.

**Storage:** Lyophilized rHuIL-1RN although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution rHuIL-1RN 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). Aliquot to avoid repeated freeze-thaw cycles.

## GENE INFORMATION

**Gene Name:** [IL1RN](#)

**Synonyms:** ICIL-1RA; IL-1ra3; IL1F3; IL1RA; IRAP; RAP; IL1 inhibitor; MGC10430;IL-1ra; IL-1RN; Anakinra; Interleukin-1 receptor antagonist protein; IL1 inhibitor; IL1RN (IL1F3); Interleukin-1 receptor antagonist protein precursor; intracellular IL-1 receptor antagonist type II; intracellular interleukin-1 receptor antagonist (icIL-1ra); type II interleukin-1 receptor antagonist; IL1RN; interleukin 1 receptor antagonist

**Gene Type:** protein coding

**mRNA Refseq:** [NM\\_000577](#)

**Protein Refseq:**[NP\\_000568](#)

**MIM:** [147679](#)

**GeneID:**[3557](#)

**Chromosome Location:** 2q14.2

**Function:** interleukin-1 receptor antagonist activity; protein binding activity

## REFERENCES

- 1.C.A. Dinarello. The interleukin-1 family: 10 years of discovery. FASEB Journal. 1994; 8(15): 1314-1325
- 2.Arend WP, Malyak M, et al. Interleukin-1 receptor antagonist: role in biology. Annu. Rev. Immunol. 1998; 16: 27-55
- 3.Sehouli J, Mustea A, Könsgen D, et al. Polymorphism of IL-1 receptor antagonist gene: role in cancer. Anticancer Res. 2003; 22 (6A): 3421-3424

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