

Growth Factor Data Sheet

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Rat recombinant interleukin-1 receptor antagonist protein (IL1RN) was initially called the IL1 inhibitor which is encoded by the IL1RN gene. IL1RN is a member of the interleukin-1 (IL1) cytokine family, and is secreted by various types of cells including immune cells, epithelial cells and adipocytes. IL1RN can inhibit the activity of IL1 by binding to the IL1R1 receptor and preventing its association with the co-receptor IL1RAP. IL1RN is also used in the treatment of rheumatoid arthritis, an autoimmune disease in which IL1 plays a key role. The rat IL1RN is a single nonglycosylated polypeptide chain, containing 152 amino acids that has been shown to block the inflammatory responses induced by IL1 both *in vitro* and *in vivo*.

Catalog Number	1510-01C
Product Name	IL1RN (IL-1RA), Rat Recombinant Rat Interleukin-1RN Interleukin 1 Receptor Antagonist (IL1RN) IL1RA Interleukin 1-RN IL1-RN
Source	<i>Escherichia coli</i>
MW	~17.3 kDa (152 amino acids)
Sequence	HPAGKRPCCKM QAFRIWDTNQ KTFYLRNNQL IAGYLQGPNT KLEEKIDMVP IDFRNVFLGI HGGKLCCLSCV KSGDDTKLQL EEVNITDLNK NKEEDKRFTF IRSETGPTTS FESLACPGWF LCTTLEADHP VSLTNTPKPEP CTVTKFYFQE DQ
Accession Number	P25086
Purity	>96% by SDS-PAGE and HPLC analyses
Biological Activity	Fully biologically active when compared to standard. The ED ₅₀ as determined by inhibiting IL-1 α -dependent proliferation of murine D10S cells is less than 150 ng/ml, corresponding to a specific activity of $>6.7 \times 10^3$ IU/mg in the presence of 50 pg/ml rRTIL-1 α .
Formulation	Sterile filtered white lyophilized powder. Purified and tested for use in cell culture.
Storage/Handling	This lyophilized preparation is stable at 2-8°C, but should be kept at -20°C for long term storage. The reconstituted sample can be apportioned into working aliquots and stored at -80 °C for up to 6 months. Avoid repeated freeze/thaw cycles.
Reconstitution	The sample should be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in a siliconized tube using PBS that contains a 0.1% BSA to a concentration of 0.1-1.0 mg/mL. Reconstituted solutions are stable for up to one week at 2-8°C. Stock solutions should be aliquoted and stored at -80°C. Further dilutions should be made in appropriate buffered solutions containing BSA or serum.