

Growth Factor Data Sheet

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IL1RN, initially called the IL1 inhibitor, is encoded by the IL1RN gene which is a member of the interleukin 1 cytokine family. IL1RN is secreted by various types of cells, including immune cells, epithelial cells and adipocytes. IL1RN functions to inhibit the activity of interleukin-1 by binding to the IL1R1 receptor, which prevents it from associating 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 *Equus caballus* IL1RN is a single nonglycosylated polypeptide chain that has been shown to block the inflammatory responses induced by IL1 both *in vitro* and in vivo. The protein shows 26% amino acid homology to IL1 β and 19% homology to IL1 α .

| Catalog Number Product Name | 1010-01C IL1RN (IL-1RA), Equine Recombinant Equine Interleukin-RN Interleukin 1 Receptor Antagonist (IL1RN) EqIL1RA Interleukin 1-RN IL1-RN |
|--------------------------------|--|
| Source | Escherichia coli |
| MW | ~17.4 kDa (152 amino acids) |
| Sequence | HPLGKRPCKM QAFRIWDVNQ KTFYMRNNQL VAGYLQESNT KLQEKIDVVP IEPDALFLGL HGRKLCLACV KSGDEIRFQL EAVNITDLSK NKEENKRFTF IRSNSGPTTS FESAACPGWF LCTAQEADRP VSLTNKPKES FMVTKFYLQE DQ |
| Accession Number | <u>018999</u> |
| Purity | >95% by SDS-PAGE analysis. >95% by RP-HPLC analysis |
| 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 3.0 μ g/ml, corresponding to a specific activity of >333 IU/mg in the presence of 50 pg/ml rHuIL-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. |

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