

Recombinant Mouse IL-1RA

Catalog # FL069

Product Specifications

Appearance	Sterile filtered White lyophilized (freeze-dried) powder.
Purity	> 97% by SDS-PAGE or HPLC.
Endotoxin	< 0.1 EU/μg of rMuIL-1RA protein as determined by LAL method.
Expression System	Expressed in E. coli.
Species	Mouse
Tag	Tag free.
Activity	Fully biologically active when compared to standard. The ED50 as determined by inhibiting IL-1α-dependent proliferation of mouse D10S cells is less than 50 ng/ml, corresponding to a specific activity of $\geq 2.0 \times 10^4$ IU/mg in the presence of 50 pg/ml rHuIL-1α.
Formulation	Lyophilized from a 0.2 μm filtered concentrated solution in PBS, pH 7.4.
Reconstitution	Before use this product, please read the direction below carefully. This vial must be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in a 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 $\leq -20^\circ\text{C}$. Further dilutions should be made in appropriate buffered solutions.
Accession #	Q542W1 Arg8-Gln159
Amino acid sequence	RPSGKRPCCKMQAFRIWDTNQTFFYLRNNQLIAGYLQGPNIKLEEKIDMVPIDLHVSFLGIHGGKLCCLSCAKSGDDIKLQLEEV NITDLSKNKEEDKRFTFIRSEKGPSTSFESAACPGWFLCTTLEADRPVSLTNTPEEPLIVTKFYFQEDQ
Molecular weight	Approximately 17.3 kDa, a single non-glycosylated polypeptide chain containing 152 amino acids.
Synonyms	IL-1RN, IRAP
Stability & Storage	Shipped on wet ice. For long term storage, the product should be stored $\leq -20^\circ\text{C}$. Please avoid repeated freeze-thaw cycles after reconstitution. 36 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.
Precautions	Recombinant Mouse IL-1RA is for research use only and not for use in diagnostic or therapeutic procedures.

Background

IL-1RA was initially called the IL-1 inhibitor which is encoded by the IL1RN gene and it is a member of the interleukin 1 cytokine family. IL-1RA is secreted by various types of cells including immune cells, epithelial cells, and adipocytes. IL-1RA has functions of inhibiting the activity of interleukin-1 by binding to receptor IL1R1 and preventing its association with the coreceptor IL1RAP for signaling. IL-1RA is also used in the treatment of rheumatoid arthritis, an autoimmune disease in which IL-1 plays a key role. The Mouse IL-1RA is a single non-glycosylated polypeptide chain containing 152 amino acids, and it has been shown to block the inflammatory responses induced by IL-1 both in vitro and in vivo. The protein shows 26% amino acid homology to IL-1β and 19% homology to IL-1α. It also shares 90% a.a. sequence identity with rat IL-1RA. Recombinant Mouse IL-1RA is a 17.3kDa protein containing 152 amino acid.

