Interleukin 1 Beta, Rat (IL1B) Active Protein

PRODUCT OVERVIEW

Product Name	Interleukin 1 beta, Rat (IL1B), Active Protein
Full Product Name	Interleukin 1 beta, Recombinant, Rat (IL-1b)
Product Gene Name	IL1B active protein
Sequence	MVPIRQLHCR LRDEQQKCLV LSDPCELKAL HLNGQNISQQ VVFSMSFVQG ETSNDKIPVA LGLKGLNLYL SCVMKDGTPT LQLESVDPKQ YPKKKMEKRF VFNKIEVKTK VEFESAQFPN WYISTSQAEH RPVFLGNSNG RDIVDFTMEP VSS
Host	E Coli
Form/Format	Supplied as a lyophilized powder from sterile-filtered 4mM Tris, pH 8.0, without additives. Reconstitute with sterile dH2O, carrier protein to concentration of 0.1-1mg/ml.
Purity/Purification	Highly Purified 98% by SDS-PAGE and HPLC analyses Endotoxin: 0.1ng/ug
Preparation and Storage	Lyophilized powder may be stored at -20 degree C. Stable for 12 months at -20 degree C. Reconstitute by adding sterile ddH2O, protein carrier. Aliquot and store at -20 degree C. Reconstituted protein is stable for 3 months. For maximum recovery of product, centrifuge the original vial after thawing and prior to removing the cap. Further dilutions can be made in assay buffer.
Molecular Weight	17.3kD
Chromosome Location	Chromosome: 2; NC_013670.1 (97614341..97618580, complement)
3D Structure	ModBase 3D Structure for P14628
Active Protein Note	Protein activity can be an ambiguous term. Please refer to the data sheet or inquire with Technical Support to determine the definition of activity for this product.
Biological Activity	The ED50 of Rat IL-1beta as determined by the dose-dependent stimulation of murine D10S cells is 0.1ng/ml, corresponding to a specific activity of 1x10e7 units/mg.
Reconstitution	Lyophilized rat IL-1beta is soluble in water and most aqueous buffers. The lyophilized protein can be reconstituted in water to a concentration of 0.1-1.0mg/ml. This solution can be diluted into other buffered solutions or stored at- 20 degree C for future use.
Product Categories/Family for IL1B active protein	Growth Factors; Cytokines; Growth Factors-Interleukin
Related Product Information for IL1B active protein	Interleukin-1beta (IL-1beta) is a potent immuno-modulator which mediates a wide range of immune and inflammatory responses including the activation of B and T cells. Rat IL-1 is a 17.3kD protein containing 153 amino acid residues.
Other Notes	Small volumes of IL1B active protein vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for IL1B purchase	MBS650942 is an active protein targeting IL1B. Also known as Interleukin 1 beta, Recombinant, Rat (IL-1b). Host: E Coli.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for IL1B. It may not necessarily be applicable to this product.

NCBI GI #	126723555

NCBI GeneID	100008990
NCBI Accession #	NP_001075670.1
UniProt Primary Accession #	P14628
UniProt Related Accession #	P14628
GenBank Nucleotide #	NM_001082201.1
NCBI Official Full Name	interleukin-1 beta
NCBI Official Symbol	IL1B
NCBI Official Synonym Symbols	IL1-BETA
UniProt Protein Name	Interleukin-1 beta
UniProt Synonym Protein Names	Lymphocyte proliferation-potentiating factor
Protein Family	Interleukin
UniProt Gene Name	IL1B
UniProt Entry Name	IL1B_RABIT
NCBI Protein Information	interleukin-1 beta; IL-1 beta; interleukin 1 beta; lymphocyte proliferation-potentiating factor
UniProt Comments for IL1B	Function: Produced by activated macrophages, IL-1 stimulates thymocyte proliferation by inducing IL-2 release, B-cell maturation and proliferation, and fibroblast growth factor activity. IL-1 proteins are involved in the inflammatory response, being identified as endogenous pyrogens, and are reported to stimulate the release of prostaglandin and collagenase from synovial cells. Subunit structure: Monomer. Subcellular location: Secreted. Note: The lack of a specific hydrophobic segment in the precursor sequence suggests that IL-1 is released by damaged cells or is secreted by a mechanism differing from that used for other secretory proteins. Domain: The similarity among the IL-1 precursors suggests that the amino ends of these proteins serve some as yet undefined function. Sequence similarities: Belongs to the IL-1 family.
Research Articles on IL1B	**1.** IL-1beta induced a significant reduction in the relative intrinsic activity of GLUT5 and in this decrease are involved NO signal pathways; blockage of D-fructose intestinal uptake by IL-1beta may play an essential role in the pathophysiology of septic ...
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