

ADDITIONAL INFORMATION

Related Product Information for IL-1 beta active protein	Interleukin-1 beta (IL-1beta) is produced by activated macrophages. IL-1beta stimulates thymocyte proliferation by inducing IL-2 release, B-cell maturation and proliferation, and fibroblast growth factor activity. IL-1beta 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. IL-1 is a name that designates two pleiotropic cytokines, IL-1 alpha (IL1F1) and IL1 beta (IL1F2), which are the products of distinct genes. IL- 1 alpha and IL-1 beta are structurally related polypeptides that share approximately 21% amino acid (aa) identity in human. Both proteins are produced by a wide variety of cells in response to inflammatory agents, infections, or microbial endotoxins. While IL-1 alpha and IL-1 beta are regulated independently, they bind to the same receptor and exert identical biological effects. The human IL-1 beta cDNA encodes a 269 aa precursor. A 116 aa propeptide is cleaved intracellularly by the cysteine protease IL-1 beta converting enzyme (Caspase1/ICE) to generate the active cytokine. The mature human IL-1 beta shares 96% aa sequence identity with rhesus and 67% 78% with canine, cotton rat, equine, feline, mouse, porcine, and rat IL-1 beta. Human recombinant IL-1beta produced in E. coli is a non-glycosylated, IL-1 beta polypeptide chain containing 153 amino acids and having a molecular mass of 17.0 kDa.
Product Categories/Family for IL-1 beta active protein	Cytokines & Growth Factors
References	1. Allan, S.M. et al. (2005) Nat. Rev. Immunol. 5:629. 2. Boraschi, D. and A. Tagliabue (2006) Vitam. Horm. 74:229. 3. Kornman, K.S. (2006) Am. J. Clin. Nutr. 83:475S. 4. Isoda, K. and F. Ohsuzu (2006) J. Atheroscler. Thromb. 13:21. 5. March, C.J. et al. (1985) Nature 315:641. 6. Auron, P.E. et al. (1984) Proc. Natl. Acad. Sci. 81:7907. 7. Martinon, F. and J. Tschopp (2007) Cell Death Differ. 14:10

NCBI AND UNIPROT INFORMATION

NCBI GI #	10835145
NCBI GeneID	3553
NCBI Accession #	NP_000567
NCBI GenBank Nucleotide #	NM_000576
UniProt Accession #	P01584; Q53X59; Q53XX2; Q7M4S7; Q7RU01; Q96HE5; Q9UCT6
Molecular Weight	17.0Da
NCBI Official Full Name	interleukin-1 beta proprotein
NCBI Official Synonym Full Names	interleukin 1, beta
NCBI Official Symbol	IL1B
NCBI Official Synonym Symbols	IL-1; IL1F2; IL1-BETA
NCBI Protein Information	interleukin-1 beta; IL-1 beta; catabolin; preinterleukin 1 beta; pro-interleukin-1-beta
UniProt Protein Name	Interleukin-1 beta
UniProt Gene Name	IL1B
UniProt Synonym Gene Names	IL1F2; IL-1 beta
UniProt Entry Name	IL1B_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.