

Product datasheet for **TP750014**

IL1 beta (IL1B) (NM_000576) Human Recombinant Protein

Product data:

Product Type:	Recombinant Proteins
Description:	Recombinant protein of human IL 1 beta (IL1B) produced in E. coli.
Species:	Human
Expression Host:	E. coli
Expression cDNA Clone or AA Sequence:	A DNA sequence encoding the region (Ala117-Ser269) of human IL 1 beta
Tag:	Tag Free
Predicted MW:	17.5 kDa
Concentration:	Resuspend the protein to the desired concentration in proper buffer.
Purity:	>95% as determined by SDS-PAGE and Coomassie blue staining
Buffer:	Lyophilized from a sterile solution containing 20 mM PB, pH 7.4
Bioactivity:	Measured in a cell proliferation assay using D10S cell. ED50 for this effect is typically 2.1 - 3.2 ng/ml.
Endotoxin:	< 0.1 EU per 1 µg of the protein by the LAL
Note:	For testing in cell culture applications, please filter before use. Note that you may experience some loss of protein during the filtration process.
Storage:	Store at -80°C.
Stability:	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
RefSeq:	NP_000567
Locus ID:	3553
UniProt ID:	P01584
RefSeq Size:	1498
Cytogenetics:	2q14.1
RefSeq ORF:	807
Synonyms:	IL-1; IL1-BETA; IL1beta; IL1F2



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Summary:

The protein encoded by this gene is a member of the interleukin 1 cytokine family. This cytokine is produced by activated macrophages as a proprotein, which is proteolytically processed to its active form by caspase 1 (CASP1/ICE). This cytokine is an important mediator of the inflammatory response, and is involved in a variety of cellular activities, including cell proliferation, differentiation, and apoptosis. The induction of cyclooxygenase-2 (PTGS2/COX2) by this cytokine in the central nervous system (CNS) is found to contribute to inflammatory pain hypersensitivity. Similarly, IL-1B has been implicated in human osteoarthritis pathogenesis. Patients with severe Coronavirus Disease 2019 (COVID-19) present elevated levels of pro-inflammatory cytokines such as IL-1B in bronchial alveolar lavage fluid samples. The lung damage induced by the Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) is to a large extent, a result of the inflammatory response promoted by cytokines such as IL-1B. This gene and eight other interleukin 1 family genes form a cytokine gene cluster on chromosome 2. [provided by RefSeq, Jul 2020]

Protein Families:

Druggable Genome, Secreted Protein

Protein Pathways:

Alzheimer's disease, Apoptosis, Cytokine-cytokine receptor interaction, Cytosolic DNA-sensing pathway, Graft-versus-host disease, Hematopoietic cell lineage, MAPK signaling pathway, NOD-like receptor signaling pathway, Prion diseases, Toll-like receptor signaling pathway, Type I diabetes mellitus

Product images: