

Product datasheet for **TP723772**

IL1 beta (IL1B) (NM_000576) Human Recombinant Protein

Product data:

Product Type:	Recombinant Proteins
Description:	Purified recombinant protein of Human interleukin 1, beta (IL1B)
Species:	Human
Expression Host:	E. coli
Expression cDNA Clone or AA Sequence:	Human IL-1beta;, the region of Ala117-Ser269, from gene Accession# NM_000576
Tag:	Tag Free
Predicted MW:	17.4 kDa
Concentration:	lot specific
Purity:	>98%, as determined by Coomassie stained SDS-PAGE.
Buffer:	10 mM NaH ₂ PO ₄ , 150 mM NaCl, pH 7.2
Bioactivity:	The ED50 is 0.858-1.85 pg/ml, corresponding to a specific activity of 1.16-0.54 x 10 ⁹ units/mg, determined by the dose dependent stimulation of D10 cells proliferation.
Endotoxin:	Less than 0.01 ng per ug protein as determined by the LAL method
Storage:	Store at -80°C.
Stability:	Unopened vial can be stored between 2°C and 8°C for up to 2 weeks, at -20°C for up to 6 months, or at -70°C or below until the expiration date. Aliquots can be stored between 2°C and 8°C for up to one week and stored at -20°C or colder for up to 3 months. Avoid repeated freeze/thaw cycles.
RefSeq:	<u>NP_000567</u>
Locus ID:	3553
UniProt ID:	<u>P01584</u>
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: