

Active Recombinant Human IL1B protein, R-PE labeled

Cat. No. IL1B-02HP **Lot. No.** (See product label)

SPECIFICATION

Product Overview

Recombinant Human IL1B protein was expressed in Escherichia coli. Purified protein was labeled with R-PE in vitro.

Species

Human

Source

E.coli

ProteinLength

154 aa

Description

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.

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Form	Solution
Bio-activity	Measured in a cell proliferation assay using D10.G4.1 mouse helper T cells. The ED50 for this effect is less or equal 12pg/ml.
Molecular Mass	Approximately 17.3 kDa, a single non-glycosylated polypeptide chain containing 154 amino acids.
AA Sequence	MAPVRSLNCTL RDSQQKSLVM SGPYELKALH LQGQDMEQQV VFSMSFVQGE ESNDKIPVAL GLKEKNLYLS CVLKDDKPTL QLESVDPKNY PKKKMEKRFV FNKIEINNKL EFESAQFPNW YISTSQAENM PVFLGGTKGG QDITDFTMQF VSS
Endotoxin	Less than 1 EU/g of rHuIL-1 β as determined by LAL method.
Purity	>95% by SDS-PAGE
Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 12 months from date of receipt, -20 to -70 centigrade as supplied. 1 month, 2 to 8 centigrade under sterile conditions after reconstitution. 3 months, -20 to -70 centigrade under sterile conditions after reconstitution.
Concentration	1.0 mg/ml
Conjugation	R-PE

GENE INFORMATION

Gene Name	IL1B interleukin 1 beta [Homo sapiens (human)]
Official Symbol	IL1B

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Synonyms	IL-1; IL1F2; IL1beta; IL1-BETA
Gene ID	3553
mRNA Refseq	NM_000576.3
Protein Refseq	NP_000567.1
MIM	147720
UniProt ID	P01584
SDS-PAGE	