

Recombinant Rat interleukin 1 beta Protein, Flag tagged

Cat. No. II1b-126R Lot. No. (See product label)

SPECIFICATION

Product Overview Recombinant rat IL-1 beta/IL1B protein (Q63264) (Val 117-Ser 268) with a Flag tag at the C-terminus was expressed in E. coli.

Species Rat

Source E.coli

ProteinLength 117-268aa

Description

Potent pro-inflammatory cytokine. Initially discovered as the major endogenous pyrogen, induces prostaglandin synthesis, neutrophil influx and activation, T-cell activation and cytokine production, B-cell activation and antibody production, and fibroblast proliferation and collagen production. Promotes Th17 differentiation of T-cells. Synergizes with IL12/interleukin-12 to induce IFNG synthesis from T-helper 1 (Th1) cells. Plays a role in angiogenesis by inducing VEGF production synergistically with TNF and IL6. Involved in transduction of inflammation downstream of pyroptosis: its mature form is specifically released in the extracellular milieu by passing through the gasdermin-D (GSDMD) pore. IL1B production occurs in 2 steps, each being controlled by different stimuli. First, inflammatory signals, such as LPS, stimulate the synthesis and promote the accumulation of cytosolic stores of pro-IL1B (priming). Then additional signals are required for inflammasome assembly, leading to CASP1 activation, pro-IL1B processing and eventually secretion of the active cytokine. IL1B processing and secretion are temporarily associated.

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Tag	C-Flag
Molecular Mass	18.9 kDa
Endotoxin	Less than 1.0 EU/μg by the LAL method.
Purity	>95% as determined by SDS-PAGE.
Storage	Please avoid repeated freeze-thaw cycles. Samples are stable for up to twelve months from date of receipt at -20 to -80 centigrade. It is recommended that aliquot the reconstituted solution to minimize freeze-thaw cycles.
Storage Buffer	Lyophilized from a 0.2 μm filtered solution of PBS, pH7.4, 5% Trehalose, 5% mannitol.
Reconstitution	Reconstitute at 250 μg/mL in sterile water.

GENE INFORMATION

Gene Name	Il1b interleukin 1 beta [Rattus norvegicus]
Official Symbol	Il1b
Synonyms	IL1B; interleukin 1 beta; interleukin-1 beta; IL-1 beta;
Gene ID	24494
mRNA Refseq	NM_031512
Protein Refseq	NP_113700

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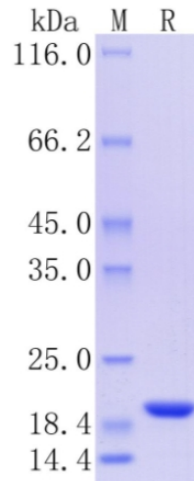
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UniProt ID

Q63264

Protein on SDS-PAGE under reducing (R) condition.



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