



IL-1 β (PTR2541) Mouse mAb

Catalog No	YP-Ab-17647
Isotype	IgG
Reactivity	Human, Mouse, Rat
Applications	WB, ELISA
Gene Name	IL1B IL1F2
Protein Name	Interleukin-1 beta (IL-1 beta) (Catabolin)
Immunogen	Synthesized peptide derived from human IL-1 β
Specificity	This antibody detects endogenous levels of IL-1 β at Human, Mouse, Rat
Formulation	PBS, pH7.4, 50% glycerol, 0.03% Proclin 300
Source	Mouse, monoclonal: IgG1, kappa
Purification	Protein G
Dilution	WB 1:500-2000 ELISA 1:5000-20000
Concentration	1 mg/ml
Purity	$\geq 90\%$
Storage Stability	-20°C/1 year
Synonyms	Interleukin-1 beta (IL-1 beta) (Catabolin)
Calculated Molecular Weight	31kD
Observed Band	31kD, 18kD
Cell Pathway	Cytoplasm, cytosol . Secreted . Lysosome . Secreted, extracellular exosome . The precursor is cytosolic (PubMed:15192144). In response to inflammasome-activating signals, such as ATP for NLRP3 inflammasome or bacterial flagellin for NLRP4 inflammasome, cleaved and secreted (PubMed:24201029, PubMed:33377178, PubMed:33883744). Mature form is secreted and released in the extracellular milieu by passing through the gasdermin-D (GSDMD) pore (PubMed:33883744). In contrast, the precursor form is not released, due to the presence of an acidic region that is proteolytically removed by CASP1 during maturation (PubMed:33883744). The secretion is dependent on protein unfolding and facilitated by the cargo receptor TMED10 (PubMed:32272059).
Tissue Specificity	Expressed in activated monocytes/macrophages (at protein level).
Function	domain: The similarity among the IL-1 precursors suggests that the amino ends of these proteins serve some as yet undefined function. function: Produced by activated macrophages, IL-1 stimulates thymocyte proliferation by inducing IL-2 release, B-cell maturation and proliferation, and fibroblast growth factor activity. IL-1 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.,online information:Interleukin-1 entry,online information:The Singapore human mutation and polymorphism database,similarity:Belongs to the IL-1 family.,subcellular location:The lack of a specific hydrophobic segment in the precursor sequence suggests that IL-1 is released by damaged cells or is secreted by a mechanism differing from that used for other secretory proteins.,subunit:Mono

Background

interleukin 1 beta(IL1B) Homo sapiens 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. This gene and eight other interleukin 1 family genes form a cytokine gene cluster on chromosome 2. [provided by RefSeq, Jul 2008],

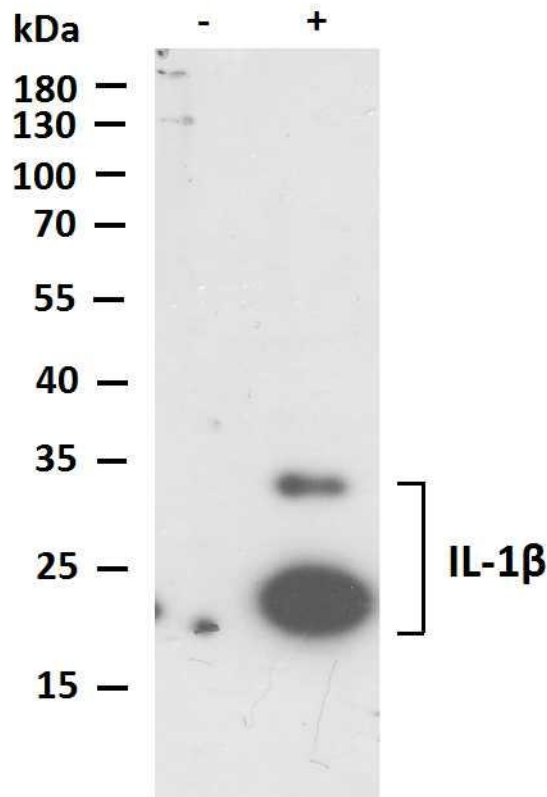
matters needing attention

Avoid repeated freezing and thawing!

Usage suggestions

This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.

Products Images



Various whole cell lysates were separated by 10% SDS-PAGE, and the membrane was blotted with anti-IL-1β antibody. The HRP-conjugated Goat anti-Rabbit IgG(H + L) antibody was used to detect the antibody. Lane 1: Untreated THP-1 Lane 2: THP-1 treated with LPS(100ng/ml) for 3h Predicted band size: 31,18kDa Observed band size: 31,18kDa