

Anti-IL-1 beta Antibody

Catalog # ABO11749

Product Information

Application	WB, E
Primary Accession	Q63264
Host	Rabbit
Reactivity	Rat
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for Interleukin-1 beta(IL1B) detection. Tested with WB, ELISA in Rat.

Reconstitution Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Other Names	Interleukin-1 beta, IL-1 beta, IL1b
Calculated MW	30644
Application Details	ELISA , 0.1-0.5 μ g/ml, Rat, - Western blot, 0.1-0.5 μ g/ml, Rat
Subcellular Localization	Secreted. 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.
Source	Eukaryota
Protein Name	Interleukin-1 beta(IL-1 beta)
Contents	Each vial contains 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3. Carrier free (No BSA) form available in stock. If you want this antibody carrier free please specify "Carrier Free" or "No BSA" in your order note. "
Immunogen	E.coli-derived rat IL-1 beta recombinant protein (Position: V117-S268). Rat IL-1 beta shares 78% and 90% amino acid (aa) sequences identity with human and mouse IL-1 beta, respectively.
Purification	Immunogen affinity purified.
Cross Reactivity	No cross reactivity with other proteins
Storage	At -20 °C for one year. After reconstitution, at 4 °C for one month. It can also be aliquotted and stored frozen at -20 °C for a longer time. Avoid repeated freezing and thawing.

Protein Information

Name	Il1b {ECO:0000312 RGD:2891}
Function	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.
Cellular Location	Cytoplasm, cytosol {ECO:0000250 UniProtKB:P01584}. Secreted {ECO:0000250 UniProtKB:P01584}. Lysosome {ECO:0000250 UniProtKB:P01584}. Secreted, extracellular exosome {ECO:0000250 UniProtKB:P10749}. Note=The precursor is cytosolic. In response to inflammasome-activating signals, such as ATP for NLRP3 inflammasome or bacterial flagellin for NLRC4 inflammasome, cleaved and secreted. Mature form is secreted and released in the extracellular milieu by passing through the gasdermin-D (GSDMD) pore. In contrast, the precursor form is not released, due to the presence of an acidic region that is proteolytically removed by CASP1 during maturation. The secretion is dependent on protein unfolding and facilitated by the cargo receptor TMED10. {ECO:0000250 UniProtKB:P01584}

Background

Interleukin-1beta (IL-1beta) is a potent stimulator of bone resorption whose gene is mapped to 2q14, and has been implicated in the pathogenesis of high bone turnover and osteoporosis. IL-1beta, a prominent microglia-derived cytokine, caused oligodendrocyte death in coculture with astrocytes and microglia, but not in pure culture of oligodendrocytes alone. It also can cause nuclear export of a specific NCOR corepressor complex, resulting in derepression of a specific subset of nuclear factor-kappa-B (NFkB)-regulated genes. Furthermore, Microenvironmental IL-1beta and, to a lesser extent, IL-1alpha are required for in vivo angiogenesis and invasiveness of different tumor cells. Additional, the cooperation of IL-1beta and PDGFB induces contractile-to-synthetic phenotype modulation of human aortic smooth muscle cells in culture. Moreover, the association with disease may be explained by the biologic properties of IL-1beta, which is an important proinflammatory cytokine and a powerful inhibitor of gastric acid secretion.

Images



Anti-IL1 beta Picoband antibody, ABO11749-1.jpgAll lanes: Anti-IL-1 beta(ABO11749) at 0.5ug/mlWB: Rat Testis Tissue Lysate at 40ugPredicted bind size: 31KDObserved bind size: 35KD

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