abcam

Product datasheet

Recombinant human IL-1 beta protein ab73577

描述

产品名称	重组人IL-1 beta蛋白
纯度	> 95 % SDS-PAGE. ab73577 is purified by proprietary chromatographic techniques. Purity is greater than 98.0% as determined by RP-HPLC and SDS-PAGE.
表达系统	Escherichia coli
蛋白长度	Protein fragment
无动物成分	No
性质	Recombinant
种属	Human
序列	The sequence of the first five N-terminal amino acids was determined and was found to be Ala-Pro-Val-Arg-Ser.
氨基酸	117 to 269

技术指标

Our **Abpromise guarantee** covers the use of **ab73577** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

应用	Functional Studies SDS-PAGE
形式	Lyophilized

制备和贮存

稳定性和存储	Shipped at 4°C. Upon delivery aliquot. Store at -80°C. Avoid freeze / thaw cycle. pH: 7.10 Constituents: 0.134% PBS, 0.87% Sodium chloride This product is an active protein and may elicit a biological response in vivo, handle with caution.
复溶	Reconstitute in sterile 18MO-cm H_2O not less than 100µg/ml, which can then be further diluted to other aqueous solutions.

常规信息

功能	Potent proinflammatory 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.
组织特异性	Expressed in activated monocytes/macrophages (at protein level).
序列相似性	Belongs to the IL-1 family.
翻译后修饰	Activation of the IL1B precursor involves a CASP1-catalyzed proteolytic cleavage. Processing and secretion are temporarily associated.
细胞定位	Cytoplasm, cytosol. Lysosome. Secreted, exosome. Cytoplasmic vesicle, autophagosome. Secreted. 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. IL1B lacks any known signal sequence and the pathway(s) of its secretion is(are) not yet fully understood (PubMed:24201029). On the basis of experimental results, several unconventional secretion mechanisms have been proposed. 1. Secretion via secretory lysosomes: a fraction of CASP1 and IL1B precursor may be incorporated, by a yet undefined mechanism, into secretory lysosomes that undergo Ca(2+)-dependent exocytosis with release of mature IL1B (PubMed:15192144). 2. Secretory autophagy: IL1B-containing autophagosomes may fuse with endosomes or multivesicular bodies (MVBs) and then merge with the plasma membrane releasing soluble IL1B or IL1B-containing exosomes (PubMed:24201029). However, autophagy impacts IL1B production at several levels and its role in secretion is still controversial. 3. Secretion via exosomes: ATP-activation of P2RX7 leads to the formation of MVBs containing exosomes with entrapped IL1B, CASP1 and other inflammasome components. These MVBs undergo exocytosis with the release of exosomes. The release of soluble IL1B occurs after the lysis of exosome membranes (By similarity). 4. Secretion by microvesicle shedding: activation of the ATP receptor P2RX7 may induce an immediate shedding of membrane-derived microvesicles containing IL1B and possibly inflammasome components. The cytokine is then released in the extracellular compartment after microvesicle lysis (PubMed:11728343). 5. Release by translocation through permeabilized plasma membrane. This may occur in cells undergoing pyroptosis due to sustained activation of the inflammasome (By similarity). These mechanisms may not be not mutually exclusive.

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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