

Recombinant human IL-1 beta protein (Active) ab9617

5 References

描述	
产品名称	重组人IL-1 beta蛋白(Active)
生物活性	The ED ₅₀ , as determined by the dose-dependent stimulation of thymidine uptake by murine D10S cells, is ≤ 1.0 pg/ml, corresponding to a specific activity of ≥ 1 x 10 ⁹ units/mg.
纯度	> 98 % SDS-PAGE. > 98% HPLC. Sterile filtered.
内毒素水平	< 1.000 Eu/μg
表达系统	Escherichia coli
Accession	P01584
蛋白长度	Full length protein
无动物成分	No
性质	Recombinant
种属	Human
序列	APVRSLNCTL RDSQQKSLVM SGPYELKALH LQQQDMEQQV VFSMSFVQGE ESNDKIPVAL GLKEKNLYLS CVLKDDKPTL QLESVDPKNY PKKKMEKRFV FNKIEINNKL EFESAQFPNW YISTSQAENM PVFLGGTKGG QDITDFTMQF VSS
预测分子量	17 kDa
氨基酸	117 to 269
额外的序列信息	Full-length mature protein, minus the propeptide.

技术指标	
Our Abpromise guarantee covers the use of ab9617 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 HPLC
形式	Lyophilized
补充说明	Licensed under European Patent 165,654.

制备和贮存

稳定性和存储

Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.

Constituents: 0.3% Sodium chloride, 0.16% Sodium phosphate

This product is an active protein and may elicit a biological response in vivo, handle with caution.

复溶

Reconstitute in water to a concentration of 0.1-1.0 mg/ml. Do not vortex. This solution can be stored at 2-8°C for up to 1 week. For extended storage, it is recommended to further dilute in a buffer containing a carrier protein (example 0.1% BSA) and store in working aliquots at -20°C to -80°C.

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 mutually exclusive.

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