

Human IL-1 beta ELISA Kit ab108865

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概述

产品名称	人IL-1 beta ELISA试剂盒			
检测方法	Colorimetric			
精确度	批次内			
	样品	n	Mean	SD
	Overall			5.6%
	批次间			
	样品	n	Mean	SD
	Overall			9.7%
样品类型	Cell culture supernatant, Serum, Plasma, Tissue, Cell Lysate			
检测类型	Sandwich (quantitative)			
灵敏度	1.5 pg/ml			
范围	3.91 pg/ml - 250 pg/ml			
检测时间	5h 00m			
实验步骤	Multiple steps standard assay			
种属反应性	与反应: Human			
产品概述	Human IL-1 beta <i>in vitro</i> ELISA (Enzyme-Linked Immunosorbent Assay) kit is designed for the quantitative measurement of IL-1 beta concentrations in cell culture supernatants, serum and plasma.			

An IL-1 beta specific antibody has been precoated onto 96-well plates and blocked. Standards or test samples are added to the wells and subsequently an IL-1 beta specific biotinylated detection antibody is added and then followed by washing with wash buffer. Streptavidin-Peroxidase Conjugate is added and unbound conjugates are washed away with wash buffer. TMB is then used to visualize Streptavidin-Peroxidase enzymatic reaction. TMB is catalyzed by Streptavidin-Peroxidase to produce a blue color product that changes into yellow after adding acidic stop solution. The density of yellow coloration is directly proportional to the amount of IL-1 beta captured in plate.

The entire kit may be stored at -20°C for long term storage before reconstitution - Avoid repeated freeze-thaw cycles.

平台 Microplate

性能

存放说明 Store at -20°C. Please refer to protocols.

组件	1 x 96 tests
100X Streptavidin-Peroxidase Conjugate	1 x 80µl
10X Diluent N Concentrate	1 x 30ml
1X Standard Diluent	1 x 2ml
20X Wash Buffer Concentrate	2 x 30ml
70X Biotinylated Human IL-1 beta Antibody	1 x 90µl
Chromogen Substrate	1 x 7ml
IL-1 beta Microplate (12 x 8 well strips)	1 unit
IL-1 beta Standard	1 vial
Sealing Tapes	3 units
Stop Solution	1 x 11ml

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).

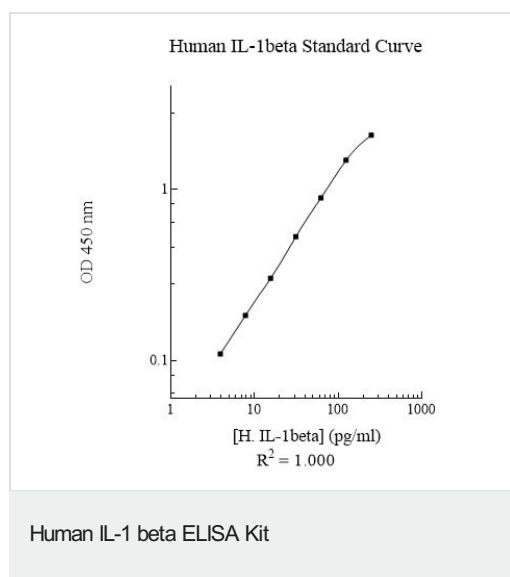
序列相似性 Belongs to the IL-1 family.

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.

图片



Representative Standard Curve using ab108865.

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