Product datasheet

Mouse IL-1 beta ELISA Kit ab100704

71 References 5 图像

概述

产品名称	**小鼠**IL-1 beta ELISA试剂**盒**
检测方法	Colorimetric
样品类型	Cell culture supernatant, Plasma
检测类型	Sandwich (quantitative)
灵敏度	< 5 pg/ml
范围	2.74 pg/ml - 2000 pg/ml
回收率	99 %

特定样本回收率

样品类型	平均%	范围
Cell culture supernatant	98.64	89% - 110%
Plasma	99.24	90% - 109%

实验步骤	Multiple steps standard assay
种属反应性	**与反应:** Mouse
产品概述	Abcam's IL-1 beta Mouse ELISA (Enzyme-Linked Immunosorbent Assay) kit is an *in vitro* enzyme-linked immunosorbent assay for the quantitative measurement of mouse IL-1 beta in plasma and cell culture supernatants. This assay employs an antibody specific for mouse IL-1 beta coated on a 96-well plate. Standards and samples are pipetted into the wells and IL-1 beta present in a sample is bound to the wells by the immobilized antibody. The wells are washed and biotinylated anti-mouse IL-1 beta antibody is added. After washing away unbound biotinylated antibody, HRP conjugated streptavidin is pipetted to the wells. The wells are again washed, a TMB substrate solution is added to the wells and color develops in proportion to the amount of IL-1 beta bound. The Stop Solution changes the color from blue to yellow, and the intensity of the color is measured at 450 nm. We have not been able to detect the endogenous Mouse IL-1 beta in normal serum with ab100704, only in serum spiked with Mouse IL-1 beta.

Get higher sensitivity in only 90 minutes with Mouse IL-1 beta ELISA Kit (**ab197742**) from our SimpleStep ELISA® range.

平台 Microplate

性能

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

组件	1 x 96 tests
200X HRP-Streptavidin Concentrate	1 x 200µl
20X Wash Buffer	1 x 25ml
5X Assay Diluent B	1 x 15ml
Assay Diluent A	1 x 30ml
Biotinylated anti-mouse IL-1 beta	2 vials
IL-1 beta Microplate (12 x 8 wells)	1 unit
Recombinant Mouse IL-1 beta Standard (lyophilized)	2 vials
Stop Solution	1 x 8ml
TMB One-Step Substrate Reagent	1 x 12ml

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).

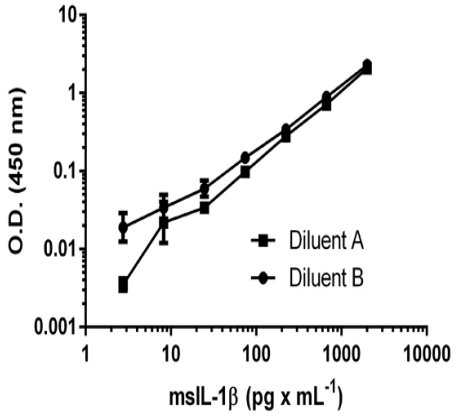
序列相似性 Belongs to the IL-1 family.

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

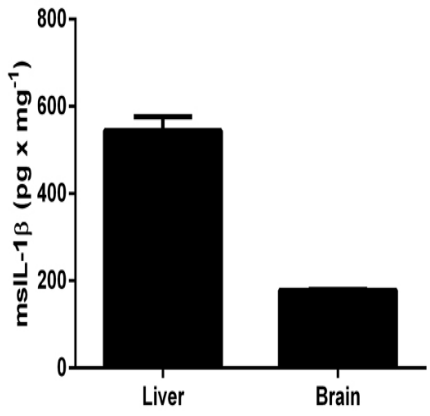
undergo exocytosis with the release of exosomes. The release of soluble IL1B occurs after the lysis of exosome membranes (By similarity). 4. Secretion by microvesicle shedding: activation of the ATP receptor P2RX7 may induce an immediate shedding of membrane-derived microvesicles containing IL1B and 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



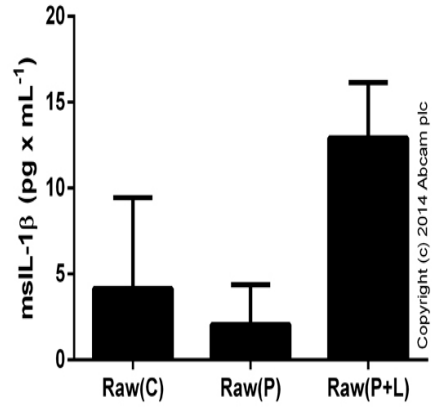
Sandwich ELISA - IL-1 beta Mouse ELISA Kit (ab100704)

Standard curve of msIL-1b in different diluents with background signal subtracted (duplicates; +/- SD).



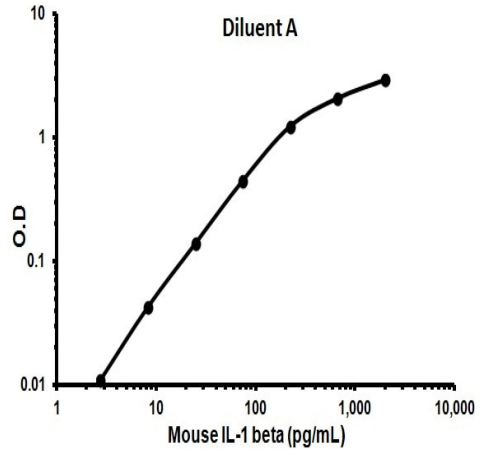
Sandwich ELISA - IL-1 beta Mouse ELISA Kit (ab100704)

IL-1b measured in mouse tissue lysates (expressed as per mg of extracted protein), with background signal subtracted (duplicates; +/- SD).



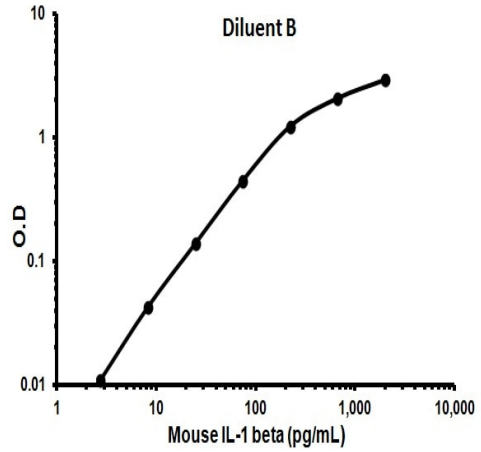
IL-1b detected in supernatants from RAW 246.7 control cells (C) or cells stimulated for 24 hours with 50 ng x mL-1 of PMA (**ab120297**) (P), or with PMA and 1 ug x mL-1 of LPS (Sigma) (P+L) for the last 6 hours. Results shown after background signal was subtracted (duplicates +/- SD).

Sandwich ELISA - IL-1 beta Mouse ELISA Kit (ab100704)



Representative standard curve using ab100704

Typical standard curve



Typical standard curve

Representative standard curve using ab100704

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