abcam

Product datasheet

Rat IL-1 beta ELISA Kit ab100767

22 References 2 图像

概述

产品名称 大鼠IL-1 beta ELISA试剂盒

检测方法 Colorimetric

样品类型 Cell culture supernatant, Serum, Plasma

检测类型 Sandwich (quantitative)

灵敏度 < 80 pg/ml

范围 68.59 pg/ml - 50000 pg/ml

回收率 99 %

特定样本回收率

样品类型	平均%	范围
Cell culture supernatant	92.89	81% - 109%
Serum	107.2	95% - 115%
Plasma	97.55	89% - 108%

实验步骤 Multiple steps standard assay

种属反应性 **与反应:** Rat

产品概述 Abcam's IL-1 beta Rat ELISA (Enzyme-Linked Immunosorbent Assay) Kit is an *in vitro* enzyme-linked immunosorbent assay for the quantitative measurement of rat IL-1 beta in serum, plasma and cell culture supernatants.

This assay employs an antibody specific for 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-rat 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 colour develops in proportion to the amount of IL-1 beta bound. The Stop Solution changes the colour from blue to yellow, and the intensity of the colour is measured at 450 nm.

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-rat IL-1 beta	2 vials
IL-1 beta Microplate (12 x 8 wells)	1 unit
Recombinant rat 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).

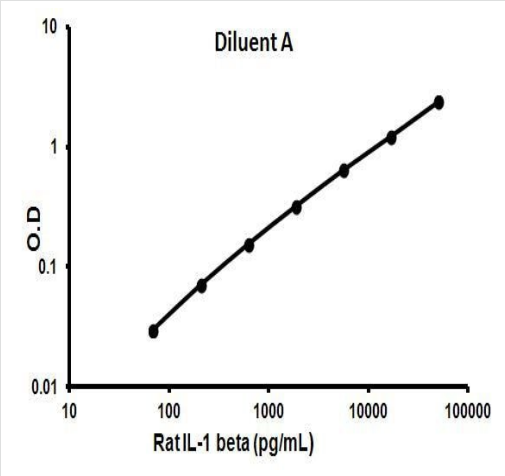
序列相似性 Belongs to the IL-1 family.

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

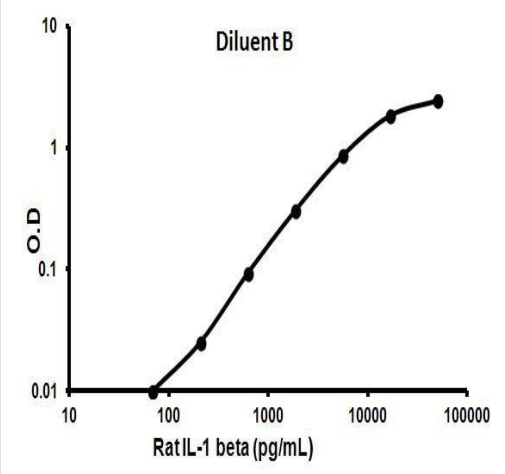
undergoing pyroptosis due to sustained activation of the inflammasome (By similarity). These mechanisms may not be not mutually exclusive.

图片



Representative standard curve using ab100767

Typical data



Representative standard curve using ab100767

typical data

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