

# Anti-Human IL-1 beta Antibody [PS00-82]

## HA721713



<b>Product Type:</b>	Recombinant Rabbit monoclonal IgG, primary antibodies
<b>Species reactivity:</b>	Human
<b>Applications:</b>	WB
<b>Molecular Wt:</b>	Predicted band size: 31 kDa
<b>Clone number:</b>	PS00-82

**Description:** Interleukin-1 beta (IL-1 $\beta$ ) also known as leukocytic pyrogen, leukocytic endogenous mediator, mononuclear cell factor, lymphocyte activating factor and other names, is a cytokine protein that in humans is encoded by the IL1B gene. There are two genes for interleukin-1 (IL-1): IL-1 alpha and IL-1 beta (this gene). IL-1 $\beta$  precursor is cleaved by cytosolic caspase 1 (interleukin 1 beta convertase) to form mature IL-1 $\beta$ . Increased production of IL-1 $\beta$  causes a number of different autoinflammatory syndromes, most notably the monogenic conditions referred to as Cryopyrin-Associated Periodic Syndromes (CAPS), due to mutations in the inflammasome receptor NLRP3 which triggers processing of IL-1B. Intestinal dysbiosis has been observed to induce osteomyelitis through a IL-1 $\beta$  dependent manner. The presence of IL-1 $\beta$  has been also found in patients with multiple sclerosis (a chronic autoimmune disease of the central nervous system). However, it is not known exactly which cells produce IL-1 $\beta$ . Treatment of multiple sclerosis with glatiramer acetate or natalizumab has also been shown to reduce the presence of IL-1 $\beta$  or its receptor.

**Immunogen:** Recombinant protein within full length human IL-1 beta.

**Positive control:** THP-1 treated with 80nM TPA overnight then treated with 100ng/mL LPS for 6 hours and 300ng/mL BFA for 3 hours whole cell lysate.

**Subcellular location:** Cytoplasm, Lysosome, Secreted

**Database links:** SwissProt: P01584 Human

**Recommended Dilutions:**  
**WB** 1:1,000

**Storage Buffer:** PBS (pH7.4), 0.1% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

**Storage Instruction:** Shipped at 4°C. Store at +4°C short term (1-2 weeks). It is recommended to aliquot into single-use upon delivery. Store at -20°C long term.

**Purity:** Protein A affinity purified.

Hangzhou Huaan Biotechnology Co., Ltd.

Orders: 0086-571-88062880

Technical: 0086-571-89986345

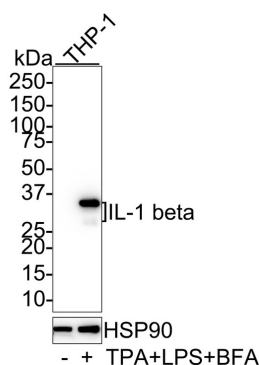
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Applications: WB=Western blot IHC-P=Immunohistochemistry (paraffin) IF-Cell=Immunofluorescence (Cell) IF-Tissue=Immunofluorescence (Tissue) FC=Flow cytometry IP=Immunoprecipitation

## Images

**Fig1:** Western blot analysis of Human IL-1 beta on different lysates with Rabbit anti-Human IL-1 beta antibody (HA721713) at 1/1,000 dilution.



Lane 1: THP-1 whole cell lysate

Lane 2: THP-1 treated with 80nM TPA overnight then treated with 100ng/mL LPS for 6 hours and 300ng/mL BFA for 3 hours whole cell lysate

Lysates/proteins at 20 µg/Lane.

Predicted band size: 31 kDa

Observed band size: 31/28 kDa

Exposure time: 25 seconds;

4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (HA721713) at 1/1,000 dilution was used in 5% NFDM/TBST at 4°C overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

**Note:** All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

### Background References

1. Milosevic V, et al. (January 2020). "Wnt/IL-1 $\beta$ /IL-8 autocrine circuitries control chemoresistance in mesothelioma initiating cells by inducing ABCB5". *Int. J. Cancer*. 146 (1): 192–207.
2. Roy D, Sarkar S, Felty Q (January 2006). "Levels of IL-1 beta control stimulatory/inhibitory growth of cancer cells". *Frontiers in Bioscience*. 11: 889–98.

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