

For Research Use Only

# IL-1 beta Recombinant antibody, PBS Only (Capture)

Catalog Number:82696-15-PBS



## Basic Information

<b>Catalog Number:</b> 82696-15-PBS	<b>GenBank Accession Number:</b> BC008678	<b>Purification Method:</b> Protein A purification
<b>Size:</b> 1 mg/ml	<b>GeneID (NCBI):</b> 3553	<b>CloneNo.:</b> 240902D6
<b>Source:</b> Rabbit	<b>ENSEMBL Gene ID:</b> ENSG00000125538	
<b>Isotype:</b> IgG	<b>UNIPROT ID:</b> P01584	
	<b>Full Name:</b> interleukin 1, beta	
	<b>Calculated MW:</b> 269 aa, 31 kDa	
	<b>Observed MW:</b> 30-35 kDa	

## Applications

**Tested Applications:**  
WB, IF/ICC, Cytometric bead array, Sandwich ELISA, Indirect ELISA, Sample test

**Species Specificity:**  
human

## Background Information

Interleukin-1 is a pro-inflammatory cytokine with multiple biological effects. The IL-1 gene family encodes three proteins: IL-1 $\alpha$ , IL-1 $\beta$  and their naturally occurring inhibitor IL-1RN. IL-1 Beta(IL-1 $\beta$ ), mainly produced by blood monocytes and tissue macrophages, has been implicated in mediating both acute and chronic inflammation. IL-1 $\beta$  is known to be involved in a variety of cellular activities, including cell proliferation, differentiation and apoptosis. IL-1 $\beta$  is emerging as a key mediator of carcinogenesis that characterizes host-environment interactions. Human IL-1 $\beta$  is synthesized as a 31 kDa precursor. To gain activity, the precursor must be cleaved by caspase-1 between Asp116 and Ala117 to yield a 17 kDa mature form.

## Storage

**Storage:**  
Store at -80°C.  
**The product is shipped with ice packs. Upon receipt, store it immediately at -80°C**

**Storage Buffer:**  
PBS Only

For technical support and original validation data for this product please contact:

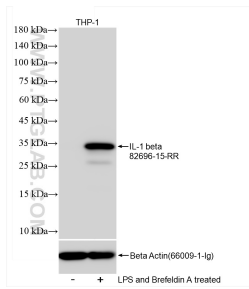
T: 4006900926

E: Proteintech-CN@ptglab.com

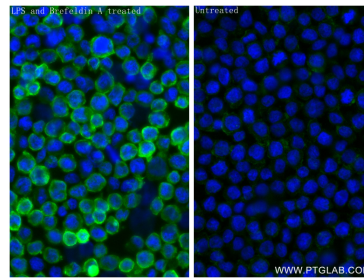
W: ptgcn.com

**This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.**

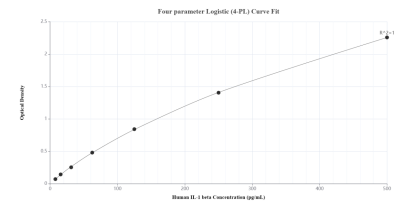
## Selected Validation Data



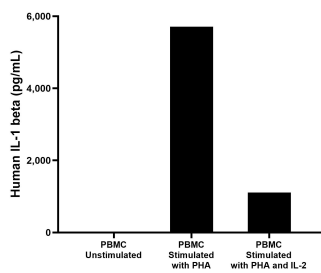
LPS and Brefeldin A treated THP-1 cells were subjected to SDS PAGE followed by western blot with 82696-15-RR (IL-1 beta antibody) at dilution of 1:5000 incubated at room temperature for 1.5 hours. This data was developed using the same antibody clone with 82696-15-PBS in a different storage buffer formulation.



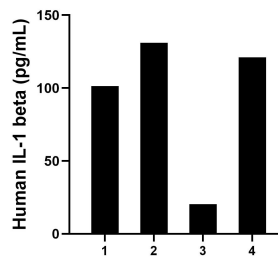
Immunofluorescent analysis of (4% PFA) fixed LPS and Brefeldin A treated THP-1 cells using IL-1 beta antibody (82696-15-RR, Clone: 240902D6) at dilution of 1:400 and Coralite®488-Conjugated Goat Anti-Rabbit IgG(H+L) (SA00013-2). This data was developed using the same antibody clone with 82696-15-PBS in a different storage buffer formulation.



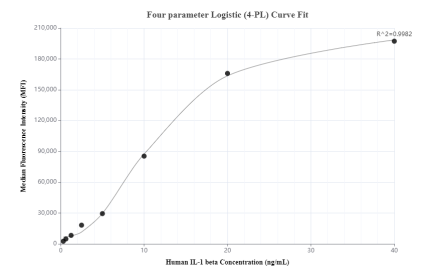
Sandwich ELISA standard curve of MP00331-2, Human IL-1 beta Recombinant Matched Antibody Pair - PBS only. 82696-15-PBS was coated to a plate as the capture antibody and incubated with serial dilutions of standard Eg0286. 82696-8-PBS was HRP conjugated as the detection antibody. Range: 7.8-500 pg/mL.



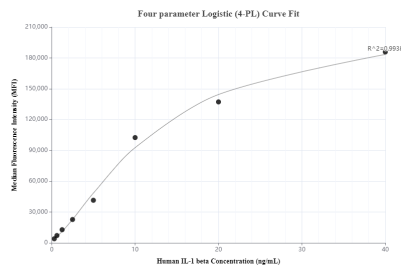
Human peripheral blood mononuclear cells (PBMC) were cultured unstimulated or stimulated with 10  $\mu$ g/mL PHA or 10  $\mu$ g/mL PHA and 10 ng/mL IL-2 for 1 day. The mean IL-1 beta concentration was not determined in unstimulated PBMC supernatant, 5,709.3 pg/mL in PHA stimulated PBMC supernatant and 1,110.8 pg/mL in PHA and IL-2 stimulated PBMC supernatant.



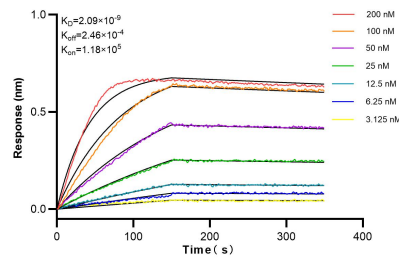
Serum of four individual healthy human donors was measured. The IL-1 beta concentration of detected samples was determined to be 93.4 pg/mL with a range of 20.3 - 131.0 pg/mL.



Cytometric bead array standard curve of MP00331-2, IL-1 beta Recombinant Matched Antibody Pair, PBS Only. Capture antibody: 82696-15-PBS. Detection antibody: 82696-8-PBS. Standard: Eg0286. Range: 0.313-40 ng/mL.



Cytometric bead array standard curve of MP00331-3, IL-1 beta Recombinant Matched Antibody Pair, PBS Only. Capture antibody: 82696-15-PBS. Detection antibody: 82696-12-PBS. Standard: Eg0286. Range: 0.313-40 ng/mL.



Biolayer interferometry (BLI) kinetic assays of 82696-15-RR against Human IL-1 beta were performed. The affinity constant is 2.09 nM.