

For Research Use Only

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

Catalog Number:82696-15-PBS



Basic Information

Catalog Number: 82696-15-PBS	GenBank Accession Number: BC008678	Purification Method: Protein A purification
Size: 100ug , Concentration: 1 mg/ml by Nanodrop;	GeneID (NCBI): 3553	CloneNo.: 240902D6
Source: Rabbit	ENSEMBL Gene ID: ENSG00000125538	
Isotype: IgG	UNIPROT ID: P01584	
	Full Name: interleukin 1, beta	
	Calculated MW: 269 aa, 31 kDa	
	Observed MW: 30-35 kDa	

Applications

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

Species Specificity:
human

Product Information

82696-15-PBS targets IL-1 beta as part of a matched antibody pair:

MP00331-2: 82696-15-PBS capture and 82696-8-PBS detection (validated in Cytometric bead array, Sandwich ELISA)

MP00331-3: 82696-15-PBS capture and 82696-12-PBS detection (validated in Cytometric bead array)

Unconjugated rabbit recombinant monoclonal antibody in PBS only (BSA and azide free) storage buffer at a concentration of 1 mg/mL, ready for conjugation. Created using Proteintech's proprietary in-house recombinant technology. Recombinant production enables unrivalled batch-to-batch consistency, easy scale-up, and future security of supply.

This conjugation ready format makes antibodies ideal for use in many applications including: ELISAs, multiplex assays requiring matched pairs, mass cytometry, and multiplex imaging applications. Antibody use should be optimized by the end user for each application and assay.

Background Information

Interleukin-1 is a pro-inflammatory cytokine with multiple biological effects. The IL-1 gene family encodes three proteins: IL-1 α , IL-1 β and their naturally occurring inhibitor IL-1RN. IL-1 Beta(IL-1 β), mainly produced by blood monocytes and tissue macrophages, has been implicated in mediating both acute and chronic inflammation. IL-1 β is known to be involved in a variety of cellular activities, including cell proliferation, differentiation and apoptosis. IL-1 β is emerging as a key mediator of carcinogenesis that characterizes host-environment interactions. Human IL-1 β 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.
Storage Buffer:
PBS Only

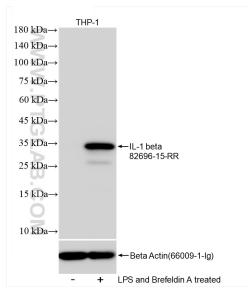
For technical support and original validation data for this product please contact:

T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)

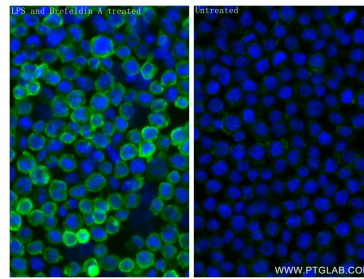
E: proteintech@ptglab.com
W: ptglab.com

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

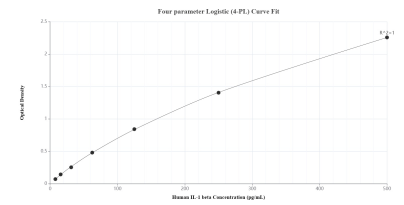
Selected Validation Data



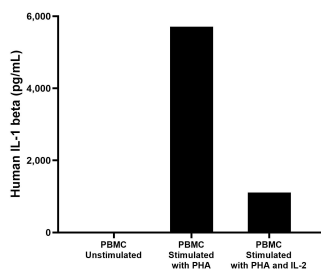
LPS and Brefeldin A treated THP-1 cells were subjected to SDS PAGE followed by western blot with 82696-15-RR (IL-1 beta antibody) at dilution of 1:5000 incubated at room temperature for 1.5 hours. This data was developed using the same antibody clone with 82696-15-PBS in a different storage buffer formulation.



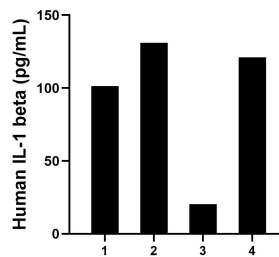
Immunofluorescent analysis of (4% PFA) fixed LPS and Brefeldin A treated THP-1 cells using IL-1 beta antibody (82696-15-RR, Clone: 240902D6) at dilution of 1:400 and Coralite®488-Conjugated Goat Anti-Rabbit IgG(H+L) (SA00013-2). This data was developed using the same antibody clone with 82696-15-PBS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



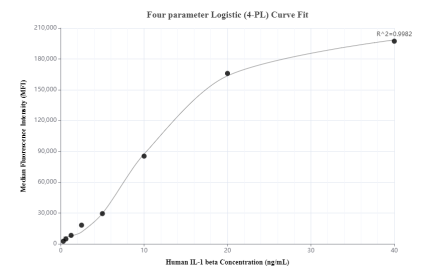
Sandwich ELISA standard curve of MP00331-2, Human IL-1 beta Recombinant Matched Antibody Pair - PBS only. 82696-15-PBS was coated to a plate as the capture antibody and incubated with serial dilutions of standard Eg0286. 82696-8-PBS was HRP conjugated as the detection antibody. Range: 7.8-500 pg/mL.



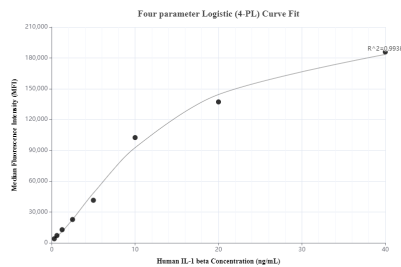
Human peripheral blood mononuclear cells (PBMC) were cultured unstimulated or stimulated with 10 µg/mL PHA or 10 µg/mL PHA and 10 ng/mL IL-2 for 1 day. The mean IL-1 beta concentration was not determined in unstimulated PBMC supernatant, 5,709.3 pg/mL in PHA stimulated PBMC supernatant and 1,110.8 pg/mL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



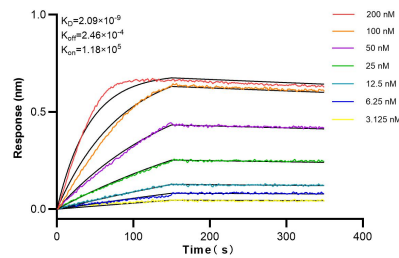
Serum of four individual healthy human donors was measured. The IL-1 beta concentration of detected samples was determined to be 93.4 pg/mL with a range of 20.3 - 131.0 pg/mL.



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.



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