

IL-1 beta (Pro-form) Monoclonal Antibody (NJTEN3), PerCP-eFluor 710, eBioscience™

Product Details	
Size	100 µg
Species	Mouse
Published Species	Artificial Control, Human
Expression System	Rat / IgG1, kappa
Recommended Isotype Control	Rat IgG1 kappa Isotype Control (eBRG1), PerCP-eFluor 710, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	NJTEN3
Conjugate	PerCP-eFluor™ 710
Form	Liquid
Concentration	0.2 mg/mL
Purification	Affinity chromatography
Storage buffer	PBS, pH 7.2, with 0.1% gelatin
Contains	0.09% sodium azide
Storage Conditions	4° C, store in dark, DO NOT FREEZE!
RRID	AB_2573835

Applications	Tested Dilution	Publications
Flow Cytometry (Flow)	0.25 µg/test	7 Publications

Product Specific Information

Description: This NJTEN3 monoclonal antibody reacts with the pro-form of mouse IL-1 beta, which is a proinflammatory cytokine expressed by monocytes, macrophages, and dendritic cells. It is synthesized in response to inflammatory stimuli as a 31 kDa inactive pro-form that accumulates in the cytosol. Cleavage of pro-IL-1 beta into the active 17 kDa protein requires the activation of inflammasomes, which are multi-protein complexes that respond to pathogens, stress conditions, and other danger signals. Inflammasome activation triggers the processing of the caspase-1 precursor into its active form, which in turn cleaves pro-IL-1 beta. IL-1 beta lacks a signal sequence peptide for classical ER/Golgi pathway and is instead secreted alongside caspase-1 via an alternate and incompletely understood mechanism. IL-1 beta signals via the IL-1RI, which is shared with IL-1 alpha. These cytokines play important roles in innate host defense by triggering the production of other proinflammatory cytokines in target cells and initiating acute-phase responses. Their activity can be moderated by IL-1 Receptor Antagonist (IL-1RA), a protein produced by many cell types that blocks receptor binding through competitive inhibition. Elevated levels of IL-1 beta have been associated with many chronic inflammatory conditions, giving IL-1RA or IL-1 beta neutralizing antibodies potential therapeutical value. The NJTEN3 antibody recognizes only the pro-form of mouse IL-1 beta and does not see the active (cleaved) form.

Applications Reported: This NJTEN3 antibody has been reported for use in intracellular staining followed by flow cytometric analysis.

Applications Tested: This NJTEN3 antibody has been tested by intracellular staining and flow cytometric analysis of stimulated

mouse thioglycolate-elicited peritoneal macrophages using the Intracellular Fixation and Permeabilization Buffer Set (cat. 88-8824) and protocol. Please refer to Best Protocols: Protocol A: Two step protocol for (cytoplasmic) intracellular proteins. This can be used at less than or equal to 0.25 µg per test. A test is defined as the amount (µg) of antibody that will stain a cell sample in a final volume of 100 µL. Cell number should be determined empirically but can range from 10⁵ to 10⁸ cells/test. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

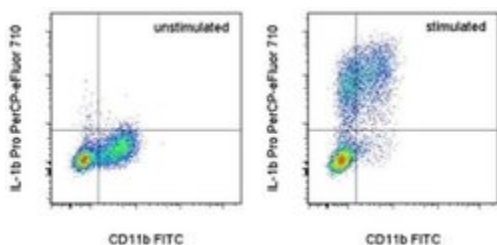
PerCP-eFluor® 710 emits at 710 nm and is excited with the blue laser (488 nm); it can be used in place of PerCP-Cyanine5.5. We recommend using a 710/50 bandpass filter, however, the 695/40 bandpass filter is an acceptable alternative. Please make sure that your instrument is capable of detecting this fluorochrome.

Fixation: Samples can be stored in IC Fixation Buffer (cat. 00-8222) (100 µL of cell sample + 100 µL of IC Fixation Buffer) or 1-step Fix/Lyse Solution (cat. 00-5333) for up to 3 days in the dark at 4°C with minimal impact on brightness and FRET efficiency /compensation. Some generalizations regarding fluorophore performance after fixation can be made, but clone specific performance should be determined empirically.

Excitation: 488 nm; Emission: 710 nm; Laser: Blue Laser.

Filtration: 0.2 µm post-manufacturing filtered.

Product Images For IL-1 beta (Pro-form) Monoclonal Antibody (NJTEN3), PerCP-eFluor 710, eBioscience™



IL-1 beta (Pro-form) Antibody (46-7114-82) in Flow

Mouse thioglycolate-elicited peritoneal macrophages were unstimulated (left) or stimulated for 5 hours with LPS (right) in the presence of Protein Transport Inhibitor Cocktail (Product # 00-4980-03). Cells were then fixed and permeabilized with the Intracellular Fixation and Permeabilization Buffer Set (88-8824) then intracellularly stained with h Anti-Mouse CD11b FITC (Product # 11-0112-41) and 0.125 µg of Anti-Mouse IL-1 beta Pro-form PerCP-eFluor® 710. Total viable cells, as determined by Fixable Viability Dye eFluor® 450, were used for analysis.

[View more figures on thermofisher.com](https://www.thermofisher.com)

Flow Cytometry (7)

Frontiers in immunology

Notch Regulates Macrophage-Mediated Inflammation in Diabetic Wound Healing.

"Published figure using IL-1 beta (Pro-form) monoclonal antibody (Product # 46-7114-82) in Flow Cytometry"

Authors: Kimball AS, Joshi AD, Boniakowski AE, Schaller M, Chung J, Allen R, Bermick J, Carson WF, Henke PK, Maillard I, Kunkel SL, Gallagher KA

Species
Human

Dilution
Not Cited

Year
2019

JCI insight

1,25-Dihydroxyvitamin D suppresses M1 macrophages and promotes M2 differentiation at bone injury sites.

"Published figure using IL-1 beta (Pro-form) monoclonal antibody (Product # 46-7114-82) in Flow Cytometry"

Authors: Wasnik S, Rundle CH, Baylink DJ, Yazdi MS, Carreon EE, Xu Y, Qin X, Lau KW, Tang X

Species
Artificial Control

Dilution
Not Cited

Year
2018

[View more Flow references on thermofisher.com](#)

More applications with references on thermofisher.com

For Research Use Only. Not for use in diagnostic procedures. Not for resale without express authorization. Products are warranted to operate or perform substantially in conformance with published Product specifications in effect at the time of sale, as set forth in the Production documentation, specifications and/or accompanying package inserts ("Documentation"). No claim of suitability for use in applications regulated by FDA is made. The warranty provided herein is valid only when used by properly trained individuals. Unless otherwise stated in the Documentation, this warranty is limited to one year from date of shipment when the Product is subjected to normal, proper and intended usage. This warranty does not extend to anyone other than the Buyer. Any model or sample furnished to Buyer is merely illustrative of the general type and quality of goods and does not represent that any Product will conform to such model or sample. NO OTHER WARRANTIES, EXPRESS OR IMPLIED, ARE GRANTED INCLUDING WITHOUT LIMITATION, IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR ANY PARTICULAR PURPOSE, OR NON-INFRINGEMENT. BUYER'S EXCLUSIVE REMEDY FOR NON-CONFORMING PRODUCTS DURING THE WARRANTY PERIOD IS LIMITED TO REPAIR, REPLACEMENT OF OR REFUND FOR THE NON-CONFORMING PRODUCT(S) AT SELLER'S SOLE OPTION. THERE IS NO OBLIGATION TO REPAIR, REPLACE OR REFUND FOR PRODUCTS AS THE RESULT OF (I) ACCIDENT, DISASTER OR EVENT OF FORCE MAJEURE, (II) MISUSE, FAULT OR NEGLIGENCE OF OR BY BUYER, (III) USE OF THE PRODUCTS IN A MANNER FOR WHICH THEY WERE NOT DESIGNED, OR (IV) IMPROPER STORAGE AND HANDLING OF THE PRODUCTS. Unless otherwise expressly stated on the Product or in the documentation accompanying the Product, the Product is intended for research only and is not to be used for any other purpose, including without limitation, unauthorized commercial uses, in vitro diagnostic uses, ex vivo or in vivo therapeutic uses, or any type of consumption by or application to human or animals.