

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human IL-1 β /IL-1F2 Propeptide in direct ELISAs and Western blots. In direct ELISAs, no cross-reactivity with recombinant human (rh) IL-1 alpha, rhIL-1F7, rhIL-1F10, rhIL-18, rhIL-36 alpha, rhIL-36 beta, IL-36 gamma, rhIL-36Ra, recombinant mouse IL-1Ra, or the mature peptides of recombinant IL-1 beta from canine, cotton rat, equine, feline, guinea pig, human, mouse, porcine, rabbit, rat, or rhesus is observed.
Source	Monoclonal Mouse IgG ₁ Clone # 615417
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human IL-1 β /IL-1F2 Propeptide Met1-Asp116 Accession # P01584
Formulation	Lyophilized from a 0.2 μ m filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 μ m filtered solution in PBS.

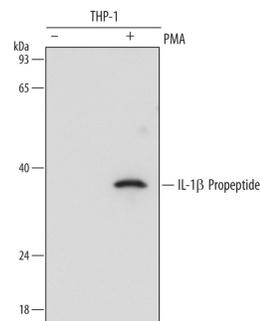
APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
Western Blot	2 μ g/mL	See Below
Immunocytochemistry	8-25 μ g/mL	See Below
Simple Western	10 μ g/mL	See Below

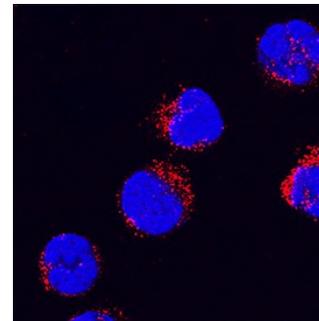
DATA

Western Blot



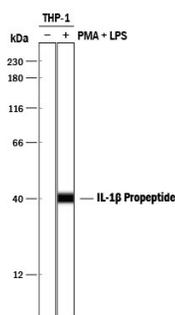
Detection of Human IL-1 β /IL-1F2 Propeptide by Western Blot. Western blot shows lysates of THP-1 human acute monocytic leukemia cell line untreated (-) or treated (+) with 80 nM PMA for 48 hours. PVDF membrane was probed with 2 μ g/mL of Mouse Anti-Human IL-1 β /IL-1F2 Propeptide Monoclonal Antibody (Catalog # MAB6964) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF007). A specific band was detected for IL-1 β /IL-1F2 Propeptide at approximately 34 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 2.

Immunocytochemistry



IL-1 β /IL-1F2 in Human PBMCs. IL-1 β /IL-1F2 was detected in immersion fixed human peripheral blood mononuclear cells using Mouse Anti-Human IL-1 β /IL-1F2 Propeptide Monoclonal Antibody (Catalog # MAB6964) at 15 μ g/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Mouse IgG Secondary Antibody (red; Catalog # NL007) and counterstained with DAPI (blue). Specific staining was localized to cytoplasmic. View our protocol for [Fluorescent ICC Staining of Non-adherent Cells](#).

Simple Western



Detection of Human IL-1 β /IL-1F2 Propeptide by Simple Western™. Simple Western lane view shows lysates of THP-1 human acute monocytic leukemia cell line untreated (-) or treated (+) with PMA and LPS, loaded at 0.2 mg/mL. A specific band was detected for IL-1 β /IL-1F2 Propeptide at approximately 40 kDa (as indicated) using 10 μ g/mL of Mouse Anti-Human IL-1 β /IL-1F2 Propeptide Monoclonal Antibody (Catalog # MAB6964). This experiment was conducted under reducing conditions and using the 12-230 kDa separation system.



PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.5 mg/mL.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

IL-1 β , also known as IL1F2, is a prototypical member of the IL-1 superfamily. It is produced by a wide variety of cells in response to inflammatory agents, infections, or microbial endotoxins. The biological activity of IL-1 β is mediated by the heterodimeric receptor complex containing IL-1 R1 (IL-1 RI) and IL-1 R3 (IL-1 RAcP). The IL-1 β propeptide is cleaved intracellularly by caspase-1/ICE to generate a 17 kDa active cytokine. The propeptide of human IL-1 β shares approximately 55% aa sequence identity with the propeptides of mouse and rat IL-1 β .