

## DESCRIPTION

<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human IL-1 $\beta$ /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.
<b>Source</b>	Monoclonal Mouse IgG <sub>1</sub> Clone # 615417
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	<i>E. coli</i> -derived recombinant human IL-1 $\beta$ /IL-1F2 Propeptide Met1-Asp116 Accession # P01584
<b>Formulation</b>	Lyophilized from a 0.2 $\mu$ m filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 $\mu$ m filtered solution in PBS.

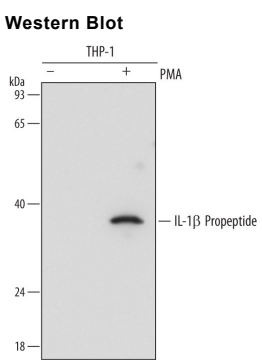
## APPLICATIONS

**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
<b>Western Blot</b>	2 $\mu$ g/mL	See Below
<b>Immunohistochemistry</b>	8-25 $\mu$ g/mL	Immersion fixed human peripheral blood mononuclear cells (PBMCs)
<b>Simple Western</b>	10 $\mu$ g/mL	See Below

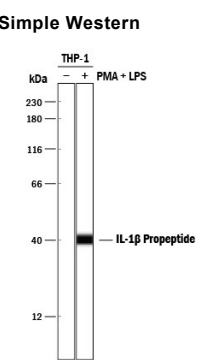
## DATA

**Western Blot**




**Detection of Human IL-1 $\beta$ /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  $\mu$ g/mL of Mouse Anti-Human IL-1 $\beta$ /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 $\beta$ /IL-1F2 Propeptide at approximately 34 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 2.

**Simple Western**



**Detection of Human IL-1 $\beta$ /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 $\beta$ /IL-1F2 Propeptide at approximately 40 kDa (as indicated) using 10  $\mu$ g/mL of Mouse Anti-Human IL-1 $\beta$ /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

<b>Reconstitution</b>	Sterile PBS to a final concentration of 0.5 mg/mL.
<b>Shipping</b>	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
<b>Stability &amp; Storage</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"> <li>● 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>● 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>● 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

## BACKGROUND

IL-1 $\beta$ , 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 $\beta$  is mediated by the heterodimeric receptor complex containing IL-1 R1 (IL-1 RI) and IL-1 R3 (IL-1 RACp). The IL-1 $\beta$  propeptide is cleaved intracellularly by caspase-1/ICE to generate a 17 kDa active cytokine. The propeptide of human IL-1 $\beta$  shares approximately 55% aa sequence identity with the propeptides of mouse and rat IL-1 $\beta$ .