## IL-1β Antibody

**For Research Use Only. Not For Use In Diagnostic Procedures.**

**Background:** Interleukin-1β (IL-1β), one of the major caspase-1 targets, is a multifunctional cytokine that is involved in a host of immune and proinflammatory responses (1). It is produced primarily by activated monocytes and macrophages. It signals through various adaptor proteins and kinases that lead to activation of numerous downstream targets (2-6). Human IL-1β 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 (7,8). Detection of the 17 kDa mature form of IL-1β is a good indicator of caspase-1 activity.

**Specificity/Sensitivity:** IL-1β Antibody detects endogenous levels of both the 31 kDa precursor and 17 kDa mature form of IL-1β.

**Source/Purification:** Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to the amino-terminal sequence of the 17 kDa mature form of human IL-1 beta. Antibodies are purified by protein A and peptide affinity chromatography.

**Background References:**

**Storage:** Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at –20°C. Do not aliquot the antibody.

**Recommended Antibody Dilutions:**
- Western Blotting: 1:1000

**Entrez-Gene ID** #3553
**Swiss-Prot Acc.** #P01584

**Important:** For Western blots, incubate membrane with diluted antibody in 5% w/v BSA, 1X TBS, 0.1% Tween-20 at 4°C with gentle shaking, overnight.

**Applications:** W
**Species Cross-Reactivity:** H
**Molecular Wt.:** 17, 31 kDa
**Source:** Rabbit**

### Applications Species Cross-Reactivity**

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### Western blot analysis of extracts (lanes 1 and 2) from THP-1 cells, untreated or lipopolysaccharide (LPS)-treated (10 µg/ml for 24 hours) using IL-1β Antibody. Cells were differentiated with 0.5 µM TPA for 3 hours. Cells were washed and plated onto 24-well plates at a density of 4 x 105 cells per well and left to adhere overnight prior to LPS treatment with the addition of 5 mM ATP for 1 hour to stimulate release of IL-1β.

**IMPORTANT:** For Western blots, incubate membrane with diluted antibody in 5% w/v BSA, 1X TBS, 0.1% Tween-20 at 4°C with gentle shaking, overnight.

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**Storage:** Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at –20°C. Do not aliquot the antibody.

**Anti-rabbit secondary antibodies must be used to detect this antibody.**

**Recommended Antibody Dilutions:**
- Western Blotting: 1:1000

For application specific protocols please see the web page for this product at www.cellsignal.com.

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