

IL-1β (D4T2D) Rabbit mAb (Mouse Specific)



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

Applications W Endogenous	Species Cross-Reactivity* M	Molecular Wt. 17, 31 kDa	Isotype Rabbit IgG**
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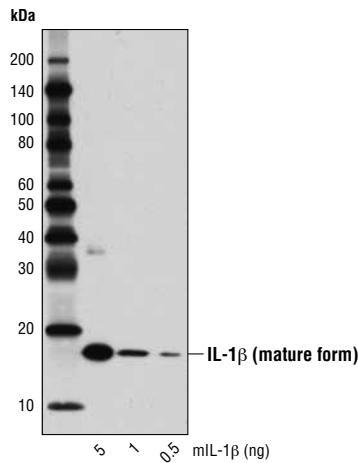
Background: Interleukin-1β (IL-1β) is a proinflammatory cytokine produced predominantly by activated monocytes and epithelial cells (1). Precursor IL-1β is cleaved by caspase-1 and mature IL-1β is then secreted (1-3). Target cells include macrophages and many other cell types. Signaling by IL-1β involves IL-1β binding to IL-1 accessory protein (IL-1-AcP); the complex then binds to IL-1RI (1,2). Signaling occurs through activation of MAP kinase and NF-κB pathways (1,2). IL-1β also binds to IL-1RII, which lacks an intracellular signaling domain and thereby serves as a high affinity decoy receptor. IL-1β binding to IL-1RI is inhibited by the negative regulator, IL-1R antagonist (IL-1Ra). IL-1Ra binding to IL-1RI does not signal and serves to block IL-1β signaling. IL-1β plays critical roles in the acute phase response and sepsis (1-3).

Specificity/Sensitivity: IL-1β (D4T2D) Rabbit mAb (Mouse Specific) recognizes endogenous levels of total mouse IL-1β protein. This antibody can detect 500 pg of mature recombinant mouse IL-1β.

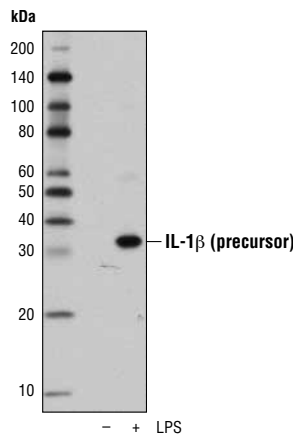
Source/Purification: Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Val175 of mouse IL-1β protein.

Background References:

- (1) Dinarello, C.A. (1996) *Blood* 87, 2095-147.
- (2) Allan, S.M. et al. (2005) *Nat Rev Immunol* 5, 629-40.
- (3) Kramer, F. et al. (2008) *Mol Immunol* 45, 2678-89.



Western blot analysis of Mouse Interleukin-1β (mIL-1β) #5204 using IL-1β (D4T2D) Rabbit mAb (Mouse Specific).



Western blot analysis of extracts from Raw 264.7 cells, untreated or LPS-treated (1 μg/ml, overnight; +), using IL-1β (D4T2D) Rabbit mAb (Mouse Specific).

Entrez-Gene ID #16176
Swiss-Prot Acc. #P10749

Storage: Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 μg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

***Species cross-reactivity is determined by western blot.**

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

Recommended Antibody Dilutions:

Western blotting 1:1000

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

Please visit www.cellsignal.com for a complete listing of recommended complementary products.

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.