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IL-1β (D4T2D) Rabbit mAb

Cell Signaling TECHNOLOGY®

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orders@cellsignal.com

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Web: info@cellsignal.com
cellsignal.com

3 Trask Lane | Danvers | Massachusetts | 01923 | USA

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
WB	M	Endogenous	17,31	Rabbit IgG	#P10749	16176

Product Usage Information

Application	Dilution
Western Blotting	1:1000

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.

Specificity / Sensitivity

IL-1β (D4T2D) Rabbit mAb 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

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).

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.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

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

Applications Key

WB: Western Blotting

Cross-Reactivity Key

H: human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **Mi:** mink **C:** chicken **Dm:** D. melanogaster **X:** Xenopus **Z:** zebrafish **B:** bovine **Dg:** dog **Pg:** pig **Sc:** S. cerevisiae **Ce:** C. elegans **Hr:** horse **GP:** Guinea Pig **Rab:** rabbit **All:** all species expected

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