

#3699 Store at -20°C

MyD88 Antibody

✓ 100 µl
(10 western blots)



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This product is intended for research purposes only. This product is not intended to be used for therapeutic or diagnostic purposes in humans or animals.

Entrez-Gene ID #4615
Swiss-Prot Acc. #Q99836

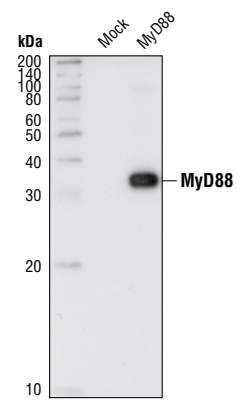
Applications W Endogenous	Species Cross-Reactivity* H, MK	Molecular Wt. 33 kDa	Source Rabbit**
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Background: The Toll-like receptors (TLR) family, named for the closely related Toll receptor in *Drosophila*, play a pivotal role in innate immune responses (1–3). TLRs recognize conserved motifs found in various pathogens and mediate defense responses. Triggering of the TLR pathway leads to the activation of NF-κB and subsequent regulation of immune and inflammatory genes. The TLRs and members of the IL-1 receptor family share a conserved stretch of about 200 amino acids known as the TIR domain. Upon activation, TLRs associate with a number of cytoplasmic adaptor proteins containing TIR domains including MyD88 (myeloid differentiation factor), MAL/TIRAP (MyD88-adaptor-like/TIR-associated protein), TRIF (Toll-receptor-associated activator of interferon) and TRAM (Toll-receptor associated molecule). This association leads to the recruitment and activation of IRAK1 and IRAK4, which forms a complex with TRAF6, activating TAK1 and IKK. Activation of IKK leads to the degradation of IκB which normally keeps NFκB inactive by sequestering it in the cytoplasm.

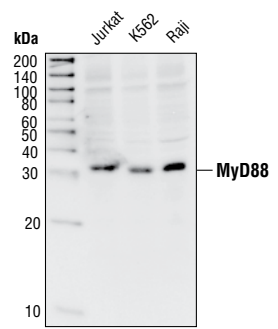
MyD88 was originally isolated as a myeloid differentiation primary response gene that is rapidly induced upon IL-6 stimulated differentiation of M1 myeloleukemic cells into macrophages (4–6). It contains an amino-terminal death domain separated from a carboxyl-terminal TIR domain and functions as an adaptor in TLR/IL-1 receptor signaling (7). The death domain of MyD88 mediates interactions with the IRAK complex triggering a signaling cascade that includes the activation of NF-κB (8,9).

Specificity/Sensitivity: MyD88 Antibody detects endogenous levels of total MyD88 protein.

Source/Purification: Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding lysine 119 of human MyD88. Antibodies were purified by protein A and peptide affinity chromatography.



Western blot analysis of extracts from HeLa cells, either mock transfected or transfected with MyD88, using MyD88 Antibody.



Western blot analysis of extracts from Jurkat, K562 and Raji cells, using MyD88 Antibody.

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.

*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 application 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 companion products.

Background References:

- (1) Akira, S. (2003) *J. Biol. Chem.* 278, 38105–38108.
- (2) Beutler, B. (2004) *Nature* 430, 257–263.
- (3) Dunne, A. and O'Neill, L. (2003) *Science STKE* 171, 3–17.
- (4) Harroch, S. et al. (1995) *Nucleic Acids Res.* 23, 3539–46.
- (5) Hardiman, G. et al. (1996) *Oncogene* 13, 2467–75.
- (6) Bonnert, T.P. et al. (1997) *FEBS Lett.* 402, 81–4.
- (7) Medzhitov, R. et al. (1998) *Mol. Cell* 2, 253–8.
- (8) Wesche, H. et al. (1997) *Immunity* 7, 837–47.
- (9) Muzio, M. et al. (1997) *Science* 278, 1612–1615.

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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Applications Key: W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide
Species Cross-Reactivity Key: H—human M—mouse R—rat Hm—hamster Mk—monkey 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 All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.