

#4283 Store at -20°C

MyD88 (D80F5) Rabbit mAb



100 µl
 (10 western blots)

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rev. 07/11/11

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.

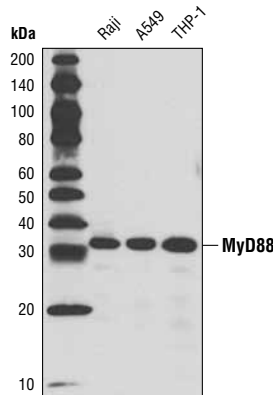
Applications	Species Cross-Reactivity*	Molecular Wt.	Isotype
W, IP Endogenous	H, M, R, Mk	33 kDa	Rabbit IgG**

Background: Members of the Toll-like receptor (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 approximately 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 form a complex with TRAF6 to activate TAK1 and IKK. Activation of IKK leads to the degradation of IκB that normally maintains NF-κB inactivity by sequestering it in the cytoplasm.

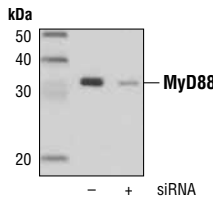
MyD88 was originally isolated as a myeloid differentiation primary response gene that is rapidly induced upon IL-6 stimulated differentiation of M1 myeloleukemic cells into macrophages (4-6). It contains an amino-terminal death domain separated from a carboxyl-terminal TIR domain and functions as an 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 (D80F5) Rabbit mAb detects endogenous levels of total MyD88 protein.

Source/Purification: Monoclonal antibody is prepared from animals immunized with a synthetic peptide corresponding to residues surrounding Cys233 of human MyD88 protein.



Western blot analysis of extracts from Raji, A549, and THP-1 cells using MyD88 (D80F5) Rabbit mAb.



Western blot analysis of extracts from A549 cells, untransfected (-) or transfected with a MyD88 siRNA (+), using MyD88 (D80F5) Rabbit mAb.

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

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
 Immunoprecipitation 1:50

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, 38105-8.
- (2) Beutler, B. (2004) *Nature* 430, 257-63.
- (3) Dunne, A. and O'Neill, L.A. (2003) *Sci STKE* 2003, re3.
- (4) Harroch, S. et al. (1995) *Nucleic Acids Res* 23, 3539-46.
- (5) Hardiman, G. et al. (1996) *Oncogene* 13, 2467-75.
- (6) Bonner, 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, 1612-5.

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 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.