

## Rabbit MyD88 Polyclonal Antibody | anti-MyD88 antibody

Phospho-MyD88 (Tyr257) Antibody

| CATALOG # | HOST   | REACTIVITY                                                                                                                              | APPLICATIONS                              |
|-----------|--------|-----------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|
| AAA329941 | Rabbit | Human, Mouse, Rat<br>Predicted Reactivity: Pig (80%), Bovine (90%), Horse (100%), Sheep (90%), Rabbit (100%), Dog (100%), Xenopus (80%) | ELISA, Immunohistochemistry, Western Blot |

### PRODUCT SYNONYMS

MyD88; Polyclonal Antibody; Phospho-MyD88 (Tyr257) Antibody; Mutant myeloid differentiation primary response 88; MYD 88; Myd88; MYD88\_HUMAN; MYD88D; Myeloid differentiation marker 88; Myeloid differentiation primary response 88; Myeloid differentiation primary response gene (88); Myeloid differentiation primary response gene 88; Myeloid differentiation primary response gene; Myeloid differentiation primary response protein MyD88; OTTHUMP00000161718; OTTHUMP00000208595; OTTHUMP00000209058; OTTHUMP00000209059; OTTHUMP00000209060; anti-MyD88 antibody

### PRODUCT SPECIFICATIONS

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|-------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Host                                            | Rabbit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Reactivity                                      | Human, Mouse, Rat<br>Predicted Reactivity: Pig (80%), Bovine (90%), Horse (100%), Sheep (90%), Rabbit (100%), Dog (100%), Xenopus (80%)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Clonality                                       | Polyclonal                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Isotype                                         | Rabbit IgG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Specificity                                     | Phospho-MyD88 (Tyr257) Antibody detects endogenous levels of MyD88 only when phosphorylated at Tyr257.<br>Tissue Specificity: Ubiquitous.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Purity/Purification                             | The antibody is from purified rabbit serum by affinity purification via sequential chromatography on phospho-peptide and non-phospho-peptide affinity columns.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Form/Format                                     | Liquid. Rabbit IgG in phosphate buffered saline, pH7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Concentration                                   | 1mg/ml (varies by lot)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Applicable Applications for anti-MyD88 antibody | ELISA (Peptide ELISA), IHC (Immunohistochemistry), WB (Western Blot)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Immunogen                                       | A synthesized peptide derived from human MyD88 around the phosphorylation site of Tyr257.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Conjugation                                     | Unconjugated                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Fragment                                        | Fab fragment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Post Translational Modifications                | Ubiquitinated; undergoes 'Lys-63'-linked polyubiquitination. OTUD4 specifically hydrolyzes 'Lys-63'-linked polyubiquitinated MYD88.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Subunit Structure                               | Homodimer. Also forms heterodimers with TIRAP. Binds to TLR2, TLR4, TLR5, IRAK1, IRAK2 and IRAK4 via their respective TIR domains. Interacts with IL18R1. Interacts with BMX, IL1RL1, IKBKE and IRF7. Interacts with LRRFIP1 and LRRFIP2; this interaction positively regulates Toll-like receptor (TLR) signaling in response to agonist. Interacts with FLII. LRRFIP1 and LRRFIP2 compete with FLII for MYD88-binding. Interacts with IRF1. Upon IL1B treatment, forms a complex with PELI1, IRAK1, IRAK4 and TRAF6; this complex recruits MAP3K7/TAK1, TAB1 and TAB2 to mediate NF-kappa-B activation. Direct binding of SMAD6 to PELI1 prevents the complex formation and hence negatively regulates IL1R-TLR signaling and eventually NF-kappa-B-mediated gene expression. May interact with PIK3AP1. Interacts (via TIR domain) with DHX9 (via H2A and OB-fold regions); this interaction is direct. Interacts with OTUD4 deubiquitinase; the interaction is direct. (Microbial infection) In case of infection, interacts with uropathogenic E.coli protein TcpC; suppressing Toll-like receptor (TLR)-mediated cytokine production. (Microbial infection) In case of infection, interacts with uropathogenic E.faecalis protein TcpF; suppressing Toll-like receptor (TLR)-mediated cytokine production. |

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|-------------------------|------------------------------------------------------------------------------------------|
| Similarity              | The intermediate domain (ID) is required for the phosphorylation and activation of IRAK. |
| Subcellular Location    | Cytoplasm. Nucleus.                                                                      |
| Preparation and Storage | Store at -20 degree C. Stable for 12 months from date of receipt.                        |

### IMAGES



#### IHC (Immunohistochemistry)

Staining Mouse brain tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.



#### WB (Western Blot)

Western blot analysis of Myd88 (Phospho-Tyr257) using nocodazole treated HeLa whole cell lysates. -/+ means absence or presence of N peptide¼non-phospho peptide) and P peptide(phospho peptide).

### ADDITIONAL INFORMATION

|                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|-----------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Related Product Information for anti-MyD88 antibody | Adapter protein involved in the Toll-like receptor and IL-1 receptor signaling pathway in the innate immune response. Acts via IRAK1, IRAK2, IRF7 and TRAF6, leading to NF-kappa-B activation, cytokine secretion and the inflammatory response. Increases IL-8 transcription. Involved in IL-18-mediated signaling pathway. Activates IRF1 resulting in its rapid migration into the nucleus to mediate an efficient induction of IFN-beta, NOS2/INOS, and IL12A genes. MyD88-mediated signaling in intestinal epithelial cells is crucial for maintenance of gut homeostasis and controls the expression of the antimicrobial lectin REG3G in the small intestine (By similarity). |
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### NCBI AND UNIPROT INFORMATION

|                                  |                                                                                                            |
|----------------------------------|------------------------------------------------------------------------------------------------------------|
| NCBI GI #                        | 289546500                                                                                                  |
| NCBI GeneID                      | 4615                                                                                                       |
| NCBI Accession #                 | NP_001166037.1                                                                                             |
| NCBI GenBank Nucleotide #        | NM_001172566.1                                                                                             |
| UniProt Accession #              | Q99836; P78397; Q53XS7; B4DKH8; B4DQ60; B4DQ72                                                             |
| Molecular Weight                 | 296 (309)                                                                                                  |
| NCBI Official Full Name          | myeloid differentiation primary response protein MyD88 isoform 5                                           |
| NCBI Official Synonym Full Names | myeloid differentiation primary response 88                                                                |
| NCBI Official Symbol             | MYD88                                                                                                      |
| NCBI Official Synonym Symbols    | MYD88D                                                                                                     |
| NCBI Protein Information         | myeloid differentiation primary response protein MyD88; myeloid differentiation primary response gene (88) |
| UniProt Protein Name             | Myeloid differentiation primary response protein MyD88                                                     |
| UniProt Gene Name                | MYD88                                                                                                      |
| UniProt Entry Name               | MYD88_HUMAN                                                                                                |

**For Research Use Only.** Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.