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MYD88, Biotinylated

Peptide-affinity purified goat antibody
Catalog # AF1701b

Product Information

Application	WB, IHC, Pep-ELISA
Primary Accession	Q99836
Other Accession	NP_002459, 4615, 17874 (mouse), 301059 (rat)
Reactivity	Human
Predicted	Mouse, Rat, Dog
Host	Goat
Clonality	Polyclonal
Isotype	IgG
Calculated MW	33233

Additional Information

Gene ID	4615
Other Names	Myeloid differentiation primary response protein MyD88, MYD88
Dilution	WB~~1:1000 IHC~~1:100~500 Pep-ELISA~~N/A
Format	0.5 mg IgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin
Storage	Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	MYD88, Biotinylated is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	MYD88 (HGNC:7562)
Function	Adapter protein involved in the Toll-like receptor and IL-1 receptor signaling pathway in the innate immune response (PubMed:15361868, PubMed:18292575, PubMed:33718825, PubMed:37971847). Acts via IRAK1, IRAK2, IRF7 and TRAF6, leading to NF-kappa-B activation, cytokine secretion and the inflammatory response (PubMed:15361868, PubMed:19506249, PubMed:24316379). Increases IL-8 transcription (PubMed:9013863). 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. Upon TLR8 activation by GU-rich

	single-stranded RNA (GU- rich RNA) derived from viruses such as SARS-CoV-2, SARS-CoV and HIV-1, induces IL1B release through NLRP3 inflammasome activation (PubMed:33718825). 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).
Cellular Location	Cytoplasm. Nucleus
Tissue Location	Ubiquitous..

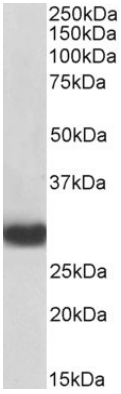
Background

This gene encodes a cytosolic adapter protein that plays a central role in the innate and adaptive immune response. This protein functions as an essential signal transducer in the interleukin-1 and Toll-like receptor signaling pathways. These pathways regulate that activation of numerous proinflammatory genes. The encoded protein consists of an N-terminal death domain and a C-terminal Toll-interleukin1 receptor domain. Patients with defects in this gene have an increased susceptibility to pyogenic bacterial infections. Alternate splicing results in multiple transcript variants.

References

The transmembrane activator TACI triggers immunoglobulin class switching by activating B cells through the adaptor MyD88. He B, et al. Nat Immunol, 2010 Sep. PMID 20676093.
Variation at the NFATC2 Locus Increases the Risk of Thiazolinedinedione-Induced Edema in the Diabetes REduction Assessment with ramipril and rosiglitazone Medication (DREAM) Study. Bailey SD, et al. Diabetes Care, 2010 Jul 13. PMID 20628086.
Dengue hemorrhagic fever is associated with polymorphisms in JAK1. Silva LK, et al. Eur J Hum Genet, 2010 Jun 30. PMID 20588308.
Helical assembly in the MyD88-IRAK4-IRAK2 complex in TLR/IL-1R signalling. Lin SC, et al. Nature, 2010 Jun 17. PMID 20485341.
Role of polymorphic variants as genetic modulators of infection in neonatal sepsis. Abu-Maziad A, et al. Pediatr Res, 2010 Oct. PMID 20463618.

Images



Biotinylated EB06667 (0.2 µg/ml) staining of Human Thymus lysate (35 µg protein in RIPA buffer), exactly mirroring its parental non-biotinylated product. Primary incubation was 1 hour. Detected by chemiluminescence, using streptavidin-HRP and using NAP bloc