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MyD88 Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP8521C

Product Information

Application	WB, IHC-P, FC, E
Primary Accession	Q99836
Other Accession	B3Y682
Reactivity	Human, Mouse
Predicted	Monkey
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	33233
Antigen Region	136-164

Additional Information

Gene ID	4615
Other Names	Myeloid differentiation primary response protein MyD88, MYD88
Target/Specificity	This MyD88 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 136-164 amino acids from the Central region of human MyD88.
Dilution	WB~~1:1000 IHC-P~~1:100~500 FC~~0.059027777777778 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.05% (V/V) Proclin 300. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	MyD88 Antibody (Center) 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..

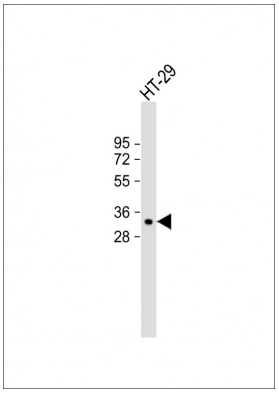
Background

Adapter protein involved in the Toll-like receptor and IL-1 receptor signaling pathway in the innate immune response. It acts via IRAK1, IRAK2 and TRAF6, leading to NF-kappa-B activation, cytokine secretion and the inflammatory response and increases IL-8 transcription. It may be involved in myeloid differentiation.

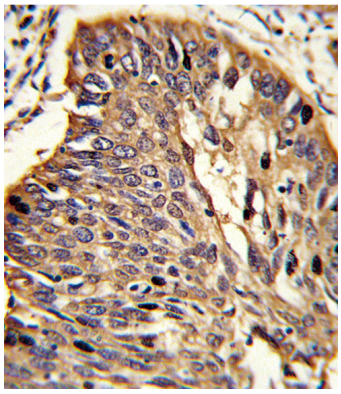
References

Bannon,C., et.al., Biochem. J. 423 (1), 119-128 (2009)
Burns,K., et.al., J. Biol. Chem. 273 (20), 12203-12209 (1998)

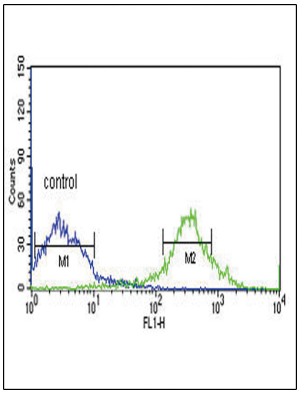
Images



Anti-MyD88 Antibody (Center) at 1:2000 dilution + HT-29 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 33 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



Formalin-fixed and paraffin-embedded human lung carcinoma reacted with MyD88 Antibody (Center), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.



MyD88 Antibody (Center) (Cat. #AP8521c) flow cytometric analysis of NCI-H460 cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

Citations

- Activation of porcine alveolar macrophages by Actinobacillus pleuropneumoniae lipopolysaccharide via the TLR4/NF-κB mediated pathway.
- The anti-inflammatory effect and potential mechanism of cardamonin in DSS-induced colitis.
- Efficacy of atorvastatin on hippocampal neuronal damage caused by chronic intermittent hypoxia: involving TLR4 and its downstream signaling pathway.