MYD88 Protein, Human (His, GST)

Cat. No.:	HY-P702057
Synonyms:	MYD88; Myeloid differentiation primary response protein MyD88
Species:	Human
Source:	E. coli
Accession:	Q99836 (M157-P296)
Gene ID:	4615
Molecular Weight:	

PROPERTIES

Appearance	Solution.
Formulation	Supplied as a 0.22 μm filtered solution of 50 mM Tris-HCl, pH7.5, 200 mM NaCl, 20% glycerol.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	Please use rapid thawing with running water to thaw the protein.
Storage & Stability	Stored at -80°C for 1 year. It is stable at -20°C for 3 months after opening. It is recommended to freeze aliquots at -80°C for extended storage. Avoid repeated freeze-thaw cycles.
Shipping	Shipping with dry ice.

DESCRIPTION

Background	The MYD88 protein functions as an adapter protein crucial in the Toll-like receptor (TLR) and IL-1 receptor signaling pathways within the innate immune response. Acting through IRAK1, IRAK2, IRF7, and TRAF6, MYD88 triggers NF-kappa-B activation, cytokine secretion, and an inflammatory response. Additionally, it enhances IL-8 transcription and participates in the IL-18-mediated signaling pathway. MYD88 activates IRF1, facilitating its swift translocation into the nucleus to efficiently induce IFN-beta, NOS2/INOS, and IL12A genes. Notably, upon TLR8 activation by GU-rich single-stranded RNA from viruses like SARS-CoV-2, SARS-CoV, and HIV-1, MYD88 induces IL1B release through NLRP3 inflammasome activation. In intestinal epithelial cells, MYD88-mediated signaling is pivotal for maintaining gut homeostasis and regulating the expression of the antimicrobial lectin REG3G in the small intestine. MYD88 forms homodimers and heterodimers with TIRAP, binds to TLR2, TLR4, TLR5, IRAK1, IRAK2, IRAK4, and interacts with various proteins, including IL18R1, BMX, IL1RL1, IKBKE, IRF7, LRRFIP1, LRRFIP2, FLII, IRF1, PELI1, and DHX9, among others, thereby orchestrating a complex network of molecular interactions involved in diverse signaling pathways.

Caution: Product has not been fully validated for medical applications. For research use only.

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