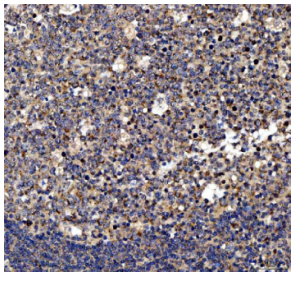
MyD88 Antibody / Myeloid differentiation primary response protein 88 (R30745)

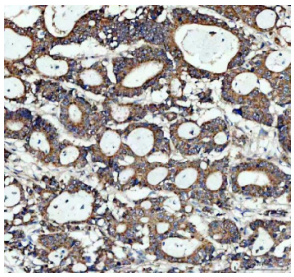
Catalog No.	Formulation	Size
R30745	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

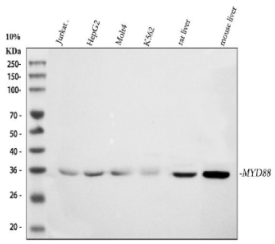
Availability	1-3 business days
Species Reactivity	Human, Mouse, Rat
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit Ig
Purity	Antigen affinity
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	Q99836
Localization	Cytoplasmic
Applications	Western blot: 0.5-1ug/ml Immunohistochemistry (FFPE): 2-5ug/ml Immunoprecipitation: 2ug per 500ug of lysate
Limitations	This MyD88 antibody is available for research use only.



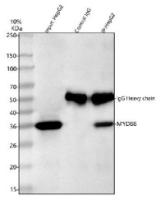
Immunohistochemistry analysis of MYD88 expression in human tonsil tissue. Paraffin-embedded human tonsil sections were subjected to heat-mediated antigen retrieval in EDTA buffer (pH 8.0) and incubated with anti-MYD88 antibody, followed by HRP-conjugated secondary antibody and DAB chromogen development. Brown immunoreactivity is observed predominantly in lymphoid cells, consistent with cytoplasmic MYD88 expression in immune cell populations, with hematoxylin nuclear counterstain (blue).



Immunohistochemistry analysis of MYD88 expression in human colon cancer tissue. Paraffin-embedded human colon cancer sections were subjected to heat-mediated antigen retrieval in EDTA buffer (pH 8.0) and incubated with anti-MYD88 antibody, followed by HRP-conjugated secondary antibody and DAB chromogen development. MYD88 staining is observed mainly in tumor-associated epithelial cells and infiltrating immune cells, consistent with cytoplasmic adaptor protein localization, with hematoxylin nuclear counterstain (blue).



Western blot analysis of MYD88 expression. Whole cell lysates from human Jurkat cells (lane 1), human HepG2 cells (lane 2), human MOLT-4 cells (lane 3), human K562 cells (lane 4), rat liver tissue (lane 5), and mouse liver tissue (lane 6) were separated by SDS-PAGE and probed with anti-MYD88 antibody. A specific immunoreactive band is detected at approximately 35 kDa across multiple samples, corresponding to MYD88. The predicted molecular weight of Myeloid differentiation primary response protein 88 is approximately 33 kDa, and the slightly higher apparent molecular weight observed on SDS-PAGE is consistent with commonly reported migration behavior for this adaptor protein.



Immunoprecipitation and western blot analysis of MYD88 expression. Human HepG2 whole cell lysates were used for immunoprecipitation with anti-MYD88 antibody. Lane 1 shows input HepG2 whole cell lysate (30 ug). Lane 2 shows immunoprecipitation performed using rabbit control IgG instead of the primary antibody, serving as a negative control. Lane 3 shows immunoprecipitation using anti-MYD88 antibody incubated with HepG2 whole cell lysate (500 ug). Immunoprecipitated proteins were resolved by SDS-PAGE, transferred to membrane, and detected using anti-MYD88 antibody followed by HRP-conjugated goat anti-rabbit IgG secondary antibody. A specific band corresponding to MYD88 is detected at approximately 35 kDa, consistent with the predicted molecular weight of Myeloid differentiation primary response protein 88. The higher molecular weight band observed around 50 kDa corresponds to the IgG heavy chain.

Description

MyD88 antibody targets Myeloid differentiation primary response protein 88, encoded by the MYD88 gene. Myeloid differentiation primary response protein 88 is a cytoplasmic adaptor protein that plays a central role in innate immune signaling. It functions as a key mediator downstream of Toll-like receptors (TLRs) and interleukin-1 receptor (IL-1R) family members, linking pathogen recognition to activation of inflammatory signaling cascades. MyD88 is considered a core component of host defense mechanisms that initiate immune responses to microbial infection.

Functionally, Myeloid differentiation primary response protein 88 mediates signal transduction by recruiting and organizing downstream kinases, including IRAK family members, through its conserved death domain and Toll-interleukin-1 receptor (TIR) domain. This assembly promotes activation of NF-kappaB and MAPK pathways, leading to transcription of pro-inflammatory cytokines, chemokines, and immune regulatory genes. A MyD88 antibody supports studies focused on innate immune signaling, receptor-adaptor interactions, and inflammatory pathway regulation.

MYD88 is widely expressed in immune-related cells such as monocytes, macrophages, dendritic cells, and B lymphocytes, although expression can also be detected in non-immune tissues. Subcellular localization is primarily cytoplasmic, with recruitment to receptor complexes at membranes upon receptor engagement. Localization and signaling output are therefore dynamic and depend on receptor activation state and cellular context rather than constitutive enzymatic activity.

From a disease relevance perspective, altered MyD88 signaling has been implicated in inflammatory and autoimmune diseases, as well as hematologic malignancies. Gain-of-function mutations in MYD88 have been extensively studied in B-

cell lymphomas, where constitutive activation of downstream signaling promotes cell survival and proliferation. At the molecular level, Myeloid differentiation primary response protein 88 functions as a non-enzymatic adaptor, relying on protein-protein interactions to transmit immune signals. MyD88 antibody reagents support research applications examining innate immunity, cytokine signaling, and immune-driven disease mechanisms, with NSJ Bioreagents providing reagents intended for research use.

Application Notes

The stated application concentrations are suggested starting points. Titration of the MyD88 antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

An amino acid sequence from the middle region of human MyD88 (FVQEMIRQLEQTNYR) was used as the immunogen for this MyD88 antibody.

Storage

After reconstitution, the MyD88 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

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