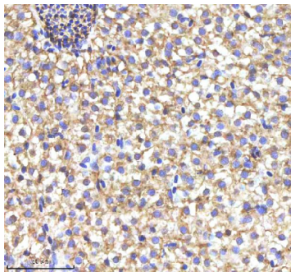
Zebrafish Myd88 Antibody (RZ1242)

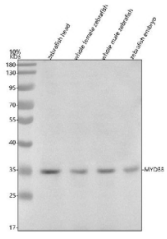
Catalog No.	Formulation	Size
RZ1242	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

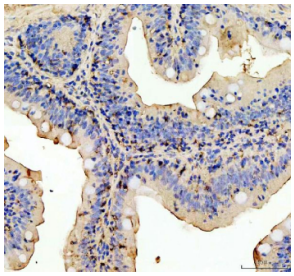
Availability	2-3 weeks
Species Reactivity	Zebrafish
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit Ig
Purity	Antigen affinity chromatography
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	Q5XJ85
Localization	Cytoplasm
Applications	Western Blot : 0.5-1ug/ml Immunohistochemistry (FFPE) : 2-5ug/ml
Limitations	This Zebrafish Myd88 antibody is available for research use only.



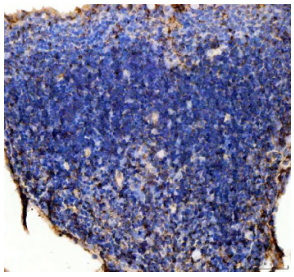
Zebrafish Myd88 Antibody Liver Tissue IHC. Immunohistochemistry staining of FFPE zebrafish liver tissue with Myd88 antibody, HRP-labeled secondary and DAB substrate. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



Zebrafish Myd88 Antibody Tissue WB. Western blot analysis of Myd88 protein using Zebrafish Myd88 antibody and 1) zebrafish head, 2) whole female zebrafish, 3) whole male zebrafish and 4) zebrafish embryo tissue lysate. Predicted molecular weight ~33 kDa.



Zebrafish Myd88 Antibody Colon Tissue IHC. Immunohistochemistry staining of FFPE zebrafish colon tissue with Myd88 antibody, HRP-labeled secondary and DAB substrate. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



Zebrafish Myd88 Antibody Thymus Tissue IHC. Immunohistochemistry staining of FFPE zebrafish thymus tissue with Myd88 antibody, HRP-labeled secondary and DAB substrate. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.

Description

The Zebrafish Myd88 antibody targets Myd88, an essential intracellular adaptor protein required for Toll-like receptor (TLR) and interleukin 1 receptor (IL-1R) signaling in Danio rerio. Zebrafish, also known as Danio rerio, express myd88 as a core mediator of innate immune activation, linking extracellular pathogen-recognition events to downstream inflammatory and antimicrobial responses. Myd88 localizes to the cytoplasm, where it assembles signaling complexes following receptor activation, initiating cascades that regulate cytokine production, immune cell recruitment, and host defense across embryonic and larval stages.

Myd88 belongs to the MyD88 family of adaptor proteins characterized by an N-terminal death domain and a C-terminal Toll-interleukin 1 receptor (TIR) domain. These domains enable Myd88 to interact with both IL-1R/TLR receptors and downstream kinases such as Irak family members. In zebrafish, myd88 expression is detected broadly in immune-relevant tissues including macrophages, neutrophils, epithelial surfaces, and developing hematopoietic regions. A Zebrafish Myd88 antibody is suitable for research applications examining cytoplasmic localization patterns, innate immune signaling dynamics, and receptor-adaptor assembly during early immune activation.

Functionally, Myd88 is a central component of the canonical TLR signaling pathway. Upon microbial detection, TLRs recruit Myd88 to initiate downstream activation of NF-kappaB, MAPK, and inflammatory cytokine networks. In zebrafish larvae, myd88 is required for mounting robust immune responses to bacterial infection, wounds, and inflammatory stimuli. Myd88-dependent signaling regulates transcription of cytokines such as il1b, tnfa, and chemokines that guide immune cell migration. Loss of myd88 function impairs inflammatory activation, disrupts neutrophil recruitment, alters macrophage behavior, and increases susceptibility to infection. Because zebrafish exhibit rapid and visually trackable immune responses, Myd88 is widely studied in models of pathogen challenge, toxicology, wound repair, and innate immune system maturation.

Structurally, zebrafish Myd88 contains conserved interaction motifs that allow assembly of the Myddosome, a multiprotein complex that initiates downstream kinase activation. The death domain facilitates recruitment of Irak family kinases, while the TIR domain enables receptor binding. Zebrafish myd88 maps to chromosome 3, with regulatory regions that respond to immune stimuli and developmental cues. Co-localization studies often detect Myd88 within macrophages, neutrophils, and epithelial tissues following immune activation, frequently overlapping with markers of inflammatory signaling and TLR pathway engagement.

A Zebrafish Myd88 antibody is suitable for detecting Myd88 in studies focused on innate immune signaling, TLR pathway activation, inflammation, host-pathogen interactions, and immune development in Danio rerio. Its cytoplasmic localization

enables researchers to examine adaptor assembly, analyze immune defects in genetic mutants, and characterize the timing and distribution of inflammatory signaling events. Myd88 expression is also valuable in environmental toxicology and infection models, where it provides insight into how external stimuli modify innate immune readiness and signaling strength. These characteristics make the antibody a key tool for vertebrate immunology, developmental immune biology, and receptor-adaptor signaling research. This reagent is supplied for research use by NSJ Bioreagents.

This Zebrafish antibody is part of a broader Zebrafish / Danio rerio antibody panel offered by NSJ Bioreagents.

Application Notes

Optimal dilution of the Zebrafish Myd88 antibody should be determined by the researcher.

Immunogen

E. coli-derived zebrafish Myd88 recombinant protein (amino acids M1-K266) was used as the immunogen for the Zebrafish Myd88 antibody.

Storage

After reconstitution, the Zebrafish 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.