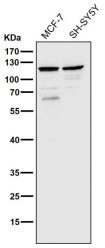
TLR5 Antibody [clone AADF-20] (RQ4760)

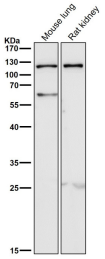
Catalog No.	Formulation	Size
RQ4760	Antibody in PBS with 0.02% sodium azide, 50% glycerol and 0.4-0.5mg/ml BSA	100 ul

Bulk quote request

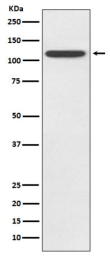
Availability	1-2 weeks
Species Reactivity	Human, Mouse, Rat
Format	Purified
Host	Rabbit
Clonality	Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	AADF-20
Purity	Affinity purified
UniProt	O60602
Applications	Western blot: 1:500-1:2000
Limitations	This TLR5 antibody is available for research use only.



TLR5 Antibody Human MCF7 and SH-SH-SY5Y Cell WB. Western blot analysis of human MCF-7 and SH-SY5Y cell lysates using TLR5 Antibody clone AADF-20. Lane 1: MCF-7. Lane 2: SH-SY5Y. A strong immunoreactive band is detected at approximately 115-120 kDa in both cell lines, which is consistent with the mature glycosylated form of TLR5. Although the predicted molecular weight of the TLR5 polypeptide is approximately 98 kDa, extensive N-linked glycosylation commonly results in slower electrophoretic migration and an apparent molecular weight of approximately 110-120 kDa. These results demonstrate that this TLR5 Antibody, a Flagellin Receptor Antibody, specifically detects endogenous TLR5 in multiple human cancer cell lines by Western blot.



TLR5 Antibody Mouse Lung and Rat Kidney Tissue WB. Western blot analysis of mouse lung and rat kidney lysates using TLR5 Antibody clone AADF-20. Lane 1: mouse lung. Lane 2: rat kidney. A strong immunoreactive band is detected at approximately 115-120 kDa in both tissue lysates, consistent with the mature glycosylated form of TLR5. Although the predicted molecular weight of the TLR5 polypeptide is approximately 98 kDa, N-linked glycosylation commonly results in slower electrophoretic migration and an apparent molecular weight of approximately 110-120 kDa. These results demonstrate that this TLR5 Antibody, a Flagellin Receptor Antibody, specifically detects endogenous TLR5 in rodent tissues by Western blot.



TLR5 Antibody HeLa Cell WB. Western blot analysis of human HeLa cell lysate using TLR5 Antibody clone AADF-20. A single prominent band is detected at approximately 98 kDa, consistent with the expected molecular weight of TLR5. The clean, specific immunoreactive band demonstrates endogenous expression of TLR5 in HeLa cells and supports the antibody's specificity for this membrane-associated pattern recognition receptor. These results demonstrate that this TLR5 Antibody, a Flagellin Receptor Antibody, is suitable for detecting endogenous TLR5 by Western blot.

Description

TLR5 Antibody clone AADF-20 detects Toll-like receptor 5, a pattern recognition receptor that contributes to innate immune defense by recognizing conserved structures associated with motile bacteria. TLR5 is a type I transmembrane protein expressed by epithelial cells and selected immune cell populations, including monocytes, macrophages, dendritic cells, and neutrophils. Its extracellular leucine-rich repeat domain binds bacterial flagellin, while its intracellular Toll/interleukin-1 receptor domain initiates downstream signaling. Through this receptor system, cells can rapidly detect microbial exposure and coordinate local inflammatory responses. A TLR5 Antibody is commonly used to examine receptor abundance, tissue distribution, and regulation in studies of host defense, mucosal immunity, and inflammatory signaling.

Activation of TLR5 promotes recruitment of the adaptor protein MYD88 and stimulates signaling pathways that include nuclear factor kappa B and mitogen-activated protein kinases. These pathways increase expression of cytokines, chemokines, adhesion molecules, and antimicrobial mediators that help recruit and activate additional immune cells. TLR5 activity is especially important at barrier surfaces such as the gastrointestinal and respiratory tracts, where epithelial cells encounter bacterial products while maintaining tissue integrity. Differences in receptor expression, cellular localization, and signaling strength can influence the balance between protective immunity and excessive inflammation. A TLR5 Antibody supports research into these processes by enabling analysis of endogenous receptor expression in cultured cells and tissue samples.

TLR5 has been investigated in infectious disease, intestinal inflammation, respiratory disorders, metabolic disease, and cancer. Genetic variation or altered receptor signaling may affect susceptibility to bacterial infection, microbiome-associated inflammation, and chronic immune activation. In oncology, TLR5 expression and stimulation have been studied for their potential effects on tumor cells, stromal cells, and immune populations within the tumor microenvironment. TLR5 agonists have also been explored as vaccine adjuvants and immune-modulating agents because receptor activation can enhance innate and adaptive immune responses. These diverse research areas make a TLR5 Antibody useful for studies spanning immunology, microbiology, epithelial biology, and translational medicine.

Researchers may analyze TLR5 by Western blot to assess protein size and relative expression, by immunohistochemistry or immunofluorescence to examine tissue and cellular localization, and by flow cytometry to characterize receptor-associated staining in defined cell populations. Interpretation can depend on sample type, fixation, membrane processing, and the biological state of the cells being tested. NSJ Bioreagents provides antibodies developed for use in relevant experimental applications and sample systems. A TLR5 Antibody is a useful reagent for investigating Toll-like receptor expression, bacterial sensing, inflammatory pathway activation, epithelial immune responses, and the molecular

mechanisms that shape innate immunity.

Visit our TLR5 Antibody / Flagellin Receptor Antibody page to explore additional validated antibodies and research tools for investigating TLR5 expression, bacterial flagellin recognition, innate immune signaling, epithelial host defense, and inflammatory responses.

Application Notes

Optimal dilution of the TLR5 antibody should be determined by the researcher.

Immunogen

A synthetic peptide specific to human TLR5 was used as the immunogen for the TLR5 antibody.

Storage

Store the TLR5 antibody at -20oC.

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