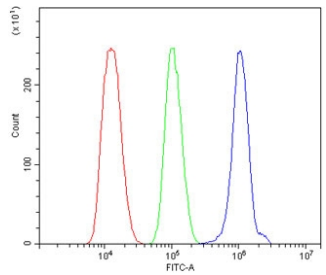
Toll-like Receptor 1 Antibody / TLR1 (RQ6074)

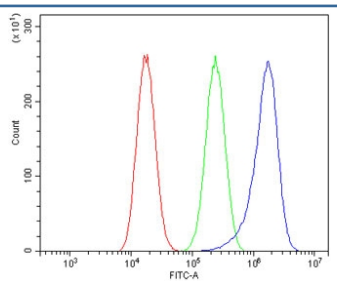
Catalog No.	Formulation	Size
RQ6074	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

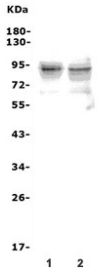
Availability	1-3 business days
Species Reactivity	Human, Rat
Format	Antigen affinity purified
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Affinity purified
Buffer	Lyophilized from 1X PBS with 2% Trehalose and 0.025% sodium azide
UniProt	Q15399
Applications	Western Blot : 0.5-1ug/ml Immunohistochemistry : 1-2ug/ml Flow Cytometry : 1-3ug/million cells Direct ELISA : 0.1-0.5ug/ml
Limitations	This Toll-like Receptor 1 antibody is available for research use only.



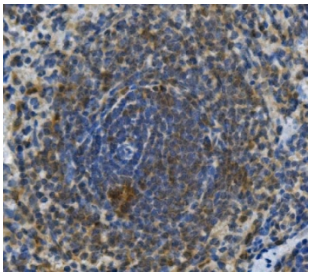
Flow cytometry testing of human ThP-1 cells with Toll-like Receptor 1 antibody at 1ug/million cells (blocked with goat sera); Red=cells alone, Green=isotype control, Blue= Toll-like Receptor 1 antibody.



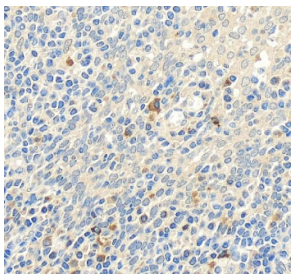
Flow cytometry testing of human A549 cells with Toll-like Receptor 1 antibody at 1ug/million cells (blocked with goat sera); Red=cells alone, Green=isotype control, Blue= Toll-like Receptor 1 antibody.



Western blot testing of human 1) ThP-1 and 2) U-87 MG cell lysate with Toll-like Receptor 1 antibody. Predicted molecular weight ~90 kDa.



IHC staining of FFPE rat spleen with Toll-like Receptor 1 antibody. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



IHC staining of FFPE human tonsil tissue with Toll-like Receptor 1 antibody, HRP-secondary and DAB substrate. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.

Description

Toll-like Receptor 1 (TLR1) is a member of the Toll-like receptor family, which plays a central role in innate immunity by recognizing conserved microbial structures. TLR1 forms heterodimers with TLR2 to detect triacylated lipopeptides found in bacteria and mycoplasma. Once engaged, this receptor complex initiates signaling pathways that activate NF-kB and other transcription factors, leading to the production of proinflammatory cytokines. Researchers often use a Toll-like Receptor 1 antibody to investigate innate immune signaling, pathogen recognition, and host defense.

Toll-like Receptor 1 is expressed on the surface of immune cells such as monocytes, macrophages, and dendritic cells. By partnering with TLR2, it provides a broader range of pathogen detection, allowing the immune system to distinguish between different classes of microbes. Employing a Toll-like Receptor 1 antibody enables scientists to examine receptor expression patterns and assess immune cell responsiveness under various conditions, including infection, inflammation, and autoimmune disease.

Altered expression or function of Toll-like Receptor 1 has been associated with susceptibility to infectious diseases and inflammatory disorders. Genetic polymorphisms in the TLR1 gene influence individual responses to bacterial infections and may contribute to chronic inflammatory conditions. Using a TLR1 antibody supports research into these genetic associations, as well as the mechanistic roles of TLR1 in immune system regulation.

NSJ Bioreagents provides a high-quality Toll-like Receptor 1 antibody validated for applications such as flow cytometry, immunohistochemistry, and western blot. Choosing a Toll-like Receptor 1 antibody from NSJ Bioreagents ensures reproducibility and accuracy in studies of innate immunity, microbial recognition, and inflammatory disease.

Application Notes

Optimal dilution of the Toll-like Receptor 1 antibody should be determined by the researcher.

Immunogen

Recombinant human protein (amino acids T62-D404) was used as the immunogen for the Toll-like Receptor 1 antibody.

Storage

After reconstitution, the Toll-like Receptor 1 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.