POLYCLONAL ANTIBODY TO HUMAN TOLL–LIKE RECEPTOR 7 (TLR7)

Catalog no: HP9040

Description: The polyclonal antibody recognizes human Toll-like receptor 7. TLRs belong to a family of proteins that specifically recognizes and senses microbial products. They are highly conserved throughout evolution and have been implicated in the innate defense to many pathogens. Like its counterparts in Drosophila toll, TLR are identified as type I transmembrane signaling receptors with pattern recognition capabilities. The various TLRs exhibit different patterns of expression. The TLR7 gene is predominantly expressed in lung, placenta, and spleen, and is located in close proximity to another family member, TLR8, on human chromosome X. TLR3, 7, 8 and 9 belong to a third class of TLRs which are localized intracellularly where they detect single-stranded RNA in endosomes, which is a common feature of viral genomes which are internalized by endosomes. TLR7 proteins are localized in endosomes and/or lysosomes. Recently, it has been discovered that TLR3, TLR7 and TLR9 trafficking requires UNC93B1, a 12-membrane spanning protein that resides in the endoplasmatic reticulum. Mice or cells that lack UNC93B1 function, are defective in TLR3, TLR7 and TLR9 signaling. Association of UNC93B1 with TLRs in the ER facilitates their transport to the endolysosome. NK cells are activated through TLR7/8 and report a central role for monocyte-derived IL-12 in the differential IFN-γ production by NK cells in response to different TLR agonists.

Aliases: Toll-like receptor 7

Immunogen: Synthetic peptide of human TLR7 corresponding to amino acids 706-728 conjugated to KLH

Species: Rabbit IgG

Cross-reactivity:

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<tr>
<th>Species</th>
<th>Reactivity</th>
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<tr>
<td>Mouse</td>
<td>Yes</td>
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<td>Rat</td>
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Formulation: 1 ml (100 µg/ml) 0.2 µm filtered antibody solution in PBS, containing 0.1% bovine serum albumin and 0.02% sodium azide.

Application:

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N.D. = Not Determined; F = Frozen sections; FC = Flow Cytometry; FS = Functional Studies; IA = Immuno Assays; IF = Immuno Fluorescence; IP = Immuno Precipitation; P = Paraffin sections; W = Western blot

Use: For immunohistochemistry, flow cytometry and Western blotting, dilutions to be used depend on detection system applied. It is recommended that users test the reagent and determine their own optimal dilutions. The typical starting working dilution is 1:50.

Storage and stability: Product should be stored at 4°C. Under recommended storage conditions, product is stable for one year.

Precautions: For research use only. Not for use in or on humans or animals or for diagnostics. It is the responsibility of the user to comply with all local/state and federal rules in the use of this product. Hycult Biotech is not responsible for any patent infringements that might result from the use or derivation of this product.
POLYCLONAL ANTIBODY TO 
HUMAN TLR7

References
1. François, S et al; Inhibition of neutrophil apoptosis by TLR agonists in whole blood: involvement of the phosphoinositide 3-kinase/Akt and NF-(kappa)B signaling pathways, leading to increased levels of Mcl-1, A1, and phosphorylated bad. J Immunol 2005, 174: 3633

Also available
HM2096  Monoclonal antibody against human TLR3, clone TLR3.7
HM2160  Monoclonal antibody against human TLR8, clone 44C143
HM2087  Monoclonal antibody against human TLR9, clone 5G5

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