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10-3504: Monoclonal Antibody to Human/Mouse TLR9 (Clone : 5G5)(Discontinued)

Clonality :	Monoclonal
Clone Name :	5G5
Application :	IHC,FACS
Reactivity :	Mouse
Gene :	Tlr9
Gene ID :	81897
Uniprot ID :	Q9EQU3
Format :	Purified
Isotype :	Mouse IgG2a

Description

The monoclonal antibody 10-3504 reacts with the Toll-like receptor 9 (TLR9, CD289). TLRs are highly conserved throughout evolution and have been implicated in the innate defence to many pathogens. In Drosophila, toll is required for the anti-fungal response, while the related 18-wheeler is involved in antibacterial defences. In mammals, TLRs identified as type I transmembrane signalling receptors with pattern recognition capabilities, have been implicated in the innate host defence to pathogens. As investigated so far all functional characterized TLR signal via the TLR/IL-1 receptor (IL-1R) pathway where recruitment of MyD88 seems to be essential. In contrast to cell-wall components, bacterial DNA is probably invisible for immune cells until DNA is liberated during processes taking place in the endosomal/lysosomal compartment where intracellular TLR9 recruits MyD88 to initiate signal transduction. Unmethylated CpG-dinucleotide-containing sequences are found much more frequently in bacterial genomes than in vertebrates genomes, whereas the frequency of CpG dinucleotides are suppressed and usually methylated. The regions adjacent to the CpG dinucleotides also affect the immunostimulatory activity. The optimal sequence differs significantly between mammalian species. Methylated CpG dinucleotides lack immunostimulatory activities. Cellular activation in response to bacterial DNA and synthetic dinucleotides containing unmethylated CpG-dinucleotides is mediated by TLR9. The monoclonal antibody 5G5 reacts with RAW macrophages and TLR9 transfected HEK293 cells, and it is cross reactive with canine TLR9.

Product Info

Amount :	Monoclonal Antibody to Human/Mouse TLR9 (Clone : 5G5)(Discontinued) / 500 µg
Content :	0.5 mg, 0.2 µm filtered antibody solution in PBS, containing 0.1% bovine serum albumin and 0.02% sodium azide.
Storage condition :	Product should be stored at 4 °C. Under recommended storage conditions, product is stable for one year.

Application Note

The monoclonal antibody 5G5 can be used for flow cytometry, Western blotting and immuno assays as detection antibody. Furthermore, the monoclonal antibody 5G5 is useful for immunohistology on frozen and paraffin sections. The monoclonal antibody 5G5 stains RAW macrophages and TLR9 (CD289) transfected HEK293 cells. The antibody is weakly cross reactive with human TLR9.

For Research Use Only. Not for use in diagnostic/therapeutics procedures.

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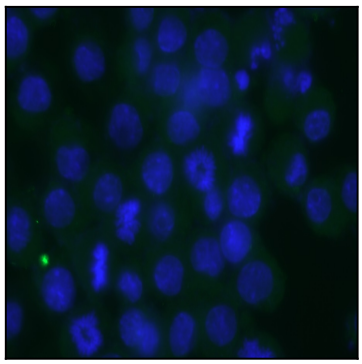

Fig. 1: For Immunohistology, raw cells were used. 1:50 dilution of 5G5 antibody was used.

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