

DESCRIPTION

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| Species Reactivity | Human |
| Specificity | Detects human TLR8 in direct ELISAs. |
| Source | Monoclonal Mouse IgG _{2B} Clone # 935166 |
| Purification | Protein A or G purified from hybridoma culture supernatant |
| Immunogen | Chinese hamster ovary cell line CHO-derived recombinant human TLR8 Glu27-Thr827 Accession # Q9NR97 |
| Conjugate | Alexa Fluor 700 Excitation Wavelength: 675-700 nm Emission Wavelength: 723 nm |
| Formulation | Supplied 0.2 mg/mL in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details. *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions. |

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

| | Recommended Concentration | Sample |
|---|---------------------------------|---|
| Intracellular Staining by Flow Cytometry | 0.25-1 µg/10 ⁶ cells | HEK293 human embryonic kidney cell line transfected with human TLR8 and eGFP was fixed with Flow Cytometry Fixation Buffer (Catalog # FC004) and permeabilized with Flow Cytometry Permeabilization/Wash Buffer I (Catalog # FC005) |

PREPARATION AND STORAGE

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| Shipping | The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below. |
| Stability & Storage | Protect from light. Do not freeze. <ul style="list-style-type: none"> 12 months from date of receipt, 2 to 8 °C as supplied. |

BACKGROUND

TLR8, also designated as CD288 (cluster of differentiation 288), is a member of the toll-like receptor (TLR) family. TLRs make up a family of pattern recognition receptors that play important roles in the innate immune response. Broad classes of pathogens (e.g. viruses, bacteria, and fungi) constitutively express a set of mutation-resistant molecules called pathogen-associated molecular patterns (PAMPs). These microbial molecular markers may be composed of proteins, carbohydrates, lipids, nucleic acids and/or combinations thereof. Individual TLRs recognize distinct pathogen-associated PAMPs, initiating signaling cascades that promote the immune response. Structurally, TLRs are type I transmembrane receptors that possess varying numbers of extracellular N-terminal leucine-rich repeat (LRR) motifs, followed by a cysteine-rich region, a TM domain, and an intracellular Toll/IL-1 R (TIR) motif. The TIR motif is common to the larger IL-1 R/TLR superfamily. Human TLR8 is an endosomal receptor that recognizes single stranded RNA (ssRNA), and can recognize ssRNA viruses such as Influenza, Sendai, and Coxsackie B viruses. TLR8 binding to the viral RNA recruits MyD88 and leads to activation of the transcription factor NF-κB and an antiviral response.

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