

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human TLR9 in direct ELISAs.
Source	Monoclonal Mouse IgG ₁ Clone # 980914
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Human TLR9 synthetic peptide Accession # Q9NR96
Conjugate	Alexa Fluor 488 Excitation Wavelength: 488 nm Emission Wavelength: 515-545 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	Human PBMCs fixed and permeabilized with FlowX FoxP3 Fixation & Permeabilization Buffer Kit (Catalog # FC012)

PREPARATION AND STORAGE

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

TLR9 (Toll receptor 9; also CD289) is a 145-150 kDa member of the Toll-like receptor family of molecules. It is expressed by colonic epithelium, CD123⁺ plasmacytoid dendritic cells, and transitional B cells, and responds to unmethylated DNA CpG motifs that contain either a GTCGTT sequence (in human), or a GACGTT sequence (in mouse). TLR9 is found in the ER and translocates to either the cell membrane or to lysosomes where it binds bacterial DNA. Precursor human TLR9 is a type I transmembrane protein 1032 amino acids (aa) in length. It possesses a 793 aa extracellular region that contains 26 LRRs (aa 26-818) plus a 193 aa cytoplasmic domain. The full-length 150 kDa form is suggested to be ligand-binding but non-signaling. The active form is believed to be an 80 kDa cleavage product found in the endosome compartment. There are multiple splice forms. One contains a deletion of aa 2-16, a second possesses an alternate start site at Met58, while a third and fourth show alternative start sites aa 23 and 24 upstream of the standard site. Over aa 64-189, human TLR9 shares 76% aa identity with mouse TLR9.

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