

## DESCRIPTION

<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human TLR9. Stains human TLR9-transfected cells but not irrelevant transfectants.
<b>Source</b>	Monoclonal Mouse IgM Clone # 229106
<b>Purification</b>	IgM-specific Affinity-purified from hybridoma culture supernatant
<b>Immunogen</b>	NS0 mouse myeloma cell line transfected with human TLR9 Accession # NP_059138
<b>Conjugate</b>	Alexa Fluor 647 Excitation Wavelength: 650 nm Emission Wavelength: 668 nm
<b>Formulation</b>	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
<b>Intracellular Staining by Flow Cytometry</b>	0.25-1 µg/10 <sup>6</sup> cells	BJAB human Burkitt's lymphoma cell line fixed with paraformaldehyde and permeabilized with saponin

## PREPARATION AND STORAGE

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

## 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<sup>+</sup> 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.

## PRODUCT SPECIFIC NOTICES

This product is provided under an agreement between Life Technologies Corporation and R&D Systems, Inc, and the manufacture, use, sale or import of this product is subject to one or more US patents and corresponding non-US equivalents, owned by Life Technologies Corporation and its affiliates. The purchase of this product conveys to the buyer the non-transferable right to use the purchased amount of the product and components of the product only in research conducted by the buyer (whether the buyer is an academic or for-profit entity). The sale of this product is expressly conditioned on the buyer not using the product or its components (1) in manufacturing; (2) to provide a service, information, or data to an unaffiliated third party for payment; (3) for therapeutic, diagnostic or prophylactic purposes; (4) to resell, sell, or otherwise transfer this product or its components to any third party, or for any other commercial purpose. Life Technologies Corporation will not assert a claim against the buyer of the infringement of the above patents based on the manufacture, use or sale of a commercial product developed in research by the buyer in which this product or its components was employed, provided that neither this product nor any of its components was used in the manufacture of such product. For information on purchasing a license to this product for purposes other than research, contact Life Technologies Corporation, Cell Analysis Business Unit, Business Development, 29851 Willow Creek Road, Eugene, OR 97402, Tel: (541) 465-8300. Fax: (541) 335-0354.