

## DESCRIPTION

<b>Species Reactivity</b>	Human/Mouse
<b>Specificity</b>	Detects human TLR9 in direct ELISAs.
<b>Source</b>	Monoclonal Mouse IgG <sub>1</sub> Clone # 980915
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	Human TLR9 synthetic peptide Accession # Q9NR96
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

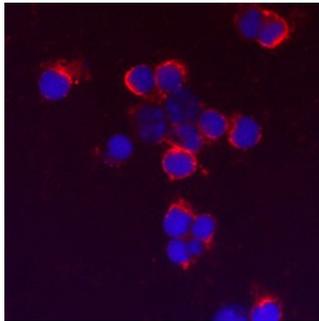
## APPLICATIONS

**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.

	<b>Recommended Concentration</b>	<b>Sample</b>
<b>Immunocytochemistry</b>	3-25 µg/mL	See Below
<b>Immunohistochemistry</b>	1-25 µg/mL	See Below

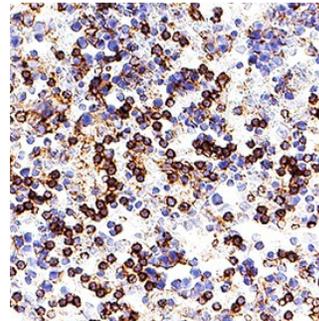
## DATA

### Immunocytochemistry



**TLR9 in Mouse Splenocytes.** TLR9 was detected in immersion fixed mouse splenocytes using Mouse Anti-Human TLR9 Monoclonal Antibody (Catalog # MAB36581) at 3 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Mouse IgG Secondary Antibody (red; Catalog # NL007) and counterstained with DAPI (blue). Specific staining was localized to plasma membrane. View our protocol for [Fluorescent ICC Staining of Non-adherent Cells](#).

### Immunohistochemistry



**TLR9 in Mouse Spleen.** TLR9 was detected in perfusion fixed frozen sections of mouse spleen using Mouse Anti-Human TLR9 Monoclonal Antibody (Catalog # MAB36581) at 1.7 µg/mL for 1 hour at room temperature followed by incubation with the Anti-Mouse IgG VisUCyte™ HRP Polymer Antibody (Catalog # VC001). Tissue was stained using DAB (brown) and counterstained with hematoxylin (blue). Specific staining was localized to plasma membrane. View our protocol for [IHC Staining with VisUCyte HRP Polymer Detection Reagents](#).

## PREPARATION AND STORAGE

<b>Reconstitution</b>	Reconstitute at 0.5 mg/mL in sterile PBS.
<b>Shipping</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
<b>Stability &amp; Storage</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"> <li>● 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>● 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>● 6 months, -20 to -70 °C under sterile conditions after reconstitution.</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.