

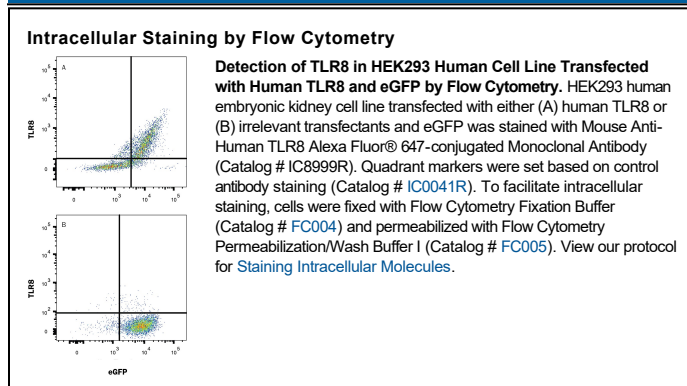
DESCRIPTION	
Species Reactivity	Human
Specificity	Detects human TLR8 in direct ELISAs.
Source	Monoclonal Mouse IgG _{2B} Clone # 935166
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Chinese hamster ovary cell line CHO-derived recombinant human TLR8 Glu27-Thr827 Accession # Q9NR97
Conjugate	Alexa Fluor 647 Excitation Wavelength: 650 nm Emission Wavelength: 668 nm
Formulation	Supplied 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	5 µL/10 ⁶ cells	See Below

DATA



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

TLR8, also designated as CD288 (cluster of differentiation 288), is a 135-140 kDa member of the Toll-like Receptor (TLR) family, TLR7/8/9 subfamily. 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. Cells known to express TLR8 include dermal and myeloid dendritic cells, monocytes, CD8⁺ T cells and colonic columnar epithelium. Structurally, TLRs are type I transmembrane receptors that possess varying numbers of extracellular N-terminal leucine-rich repeat (LRR) domains, followed by a cysteine-rich region, a TM segment, 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 a homodimeric 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. Over amino acids (aa) 27-827, human and mouse TLR8 share 67% amino acid sequence identity. Notably, rodent TLR8 does not possess an RQSYA sequence between aa 438-442, rendering it unresponsive to nucleic acid sequences that lack an accompanying poly-thymidine segment.

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.