

Monoclonal Antibody to CD284 / TLR4 - Alexa Fluor 647

Alternate names:	Toll-like receptor 4
Catalog No.:	SM1827AF647
Quantity:	0.1 mg
Concentration:	0.5 mg/ml
Background:	The Toll-like receptor (TLR) family in mammal comprises a family of transmembrane proteins characterized by multiple copies of leucine rich repeats in the extracellular domain and IL-1 receptor motif in the cytoplasmic domain. Like its counterparts in <i>Drosophila</i> , TLRs signal through adaptor molecules (1). The TLR family is a phylogenetically conserved mediator of innate immunity that is essential for microbial recognition (2). Ten human homologs of TLRs (TLR1-10) have been described (3). Among this family of receptors, TLR2 and TLR4 have been most studied. These studies have suggested that TLR2 and TLR4 may serve as potential main mediators of LPS signaling (4,5). The mouse TLR4 cDNA codes for a protein consisting of 835 amino acids with approximate molecular weight of 90 kDa (6).
Uniprot ID:	Q9OUK6
NCBI:	NP_067272.1
GeneID:	21898
Host / Isotype:	Rat / IgG2a
Clone:	MTS510
Immunogen:	Ba/F3 cell line expressing mouse TLR4 and MD-2 (Akashi et al. 2000)
Format:	State: Liquid Ig fraction Purification: Protein G chromatography Buffer System: PBS containing 0.05% BSA and 0.05% sodium azide Label: Alexa Fluor 647 – Alexa Fluor® 647
Applications:	Flow cytometry (Cell surface): 0.5-2.0 µg/10e6 cells. Recommended positive control: RAW, mouse peritoneal cells. Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.
Specificity:	This antibody detects CD284 / TLR4.
Species Reactivity:	Tested: Mouse
Storage:	Store the antibody at 2 - 8 °C. DO NOT FREEZE! This product is photosensitive and should be protected from light. Shelf life: one year from despatch.
General Readings:	1. Akashi S, Shimazu R, Ogata H, Nagai Y, Takeda K, Kimoto M, Miyake K. <i>J Immunol</i> 164(7):3471-5 (2000).

2. Muzio M, Natoli G, Saccani S, Levrero M, and Mantovani A. J. Exp. Med. 187: 2097-2101 (1998).
3. Medzhitov R and Janeway CA. Cell 91: 295-298 (1997).
4. Chuang TH and Ulevitch RJ. Biochim. Biophys. Acta 1518 (1-2): 157-161 (2001).
5. Takeuchi O., Hoshino K, Kawai T, Sanjo H, Takada H, Ogawa K, Takeda K and Akira S. Immunity 11: 443 (1999).
6. Poltorak A, Riccardi-Castagnoli P, Citterio S, and Butler B. Proc. Natl. Acad. Sci USA 97: 2163-2167 (2000).
7. Medzhitov R, Preston-Hurlburt P and Janeway CA Jr. Nature 388 (6640), 394-397 (1997).

Pictures:

Cell surface flow cytometric analysis of TLR4 using SM1827AF647 at 1.0 µg/10e6 RAW cells. Green represents isotype control, red represents anti-TLR4 antibody.

