

## Monoclonal Antibody to CD283 / TLR3 - Alexa Fluor 647

**Alternate names:** Toll-like receptor 3

**Catalog No.:** SM7101AF647

**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 Drosophila, TLRs signal through adaptor molecules (1) and could constitute an important and unrecognized component of innate immunity in humans. The TLR family is a phylogenetically conserved mediator of innate immunity that is essential for microbial recognition (2). TLRs characterized so far activate the MyD88/interleukin-1 receptor-associated kinase (IRAK) signaling pathway. Ten human homologs of TLRs (TLR1-10) have been described (3). TLR3 cDNA codes for a protein with approximate molecular weight of 120 kDa (4). TLR3 has a restricted expression pattern being expressed in dendritic cells (DC) (4-6). TLR3 mRNA expression was detected by in situ hybridization in DC and lymph nodes (6). The expression of TLR3 in a single cell type may indicate a specific role for this molecule in a restricted setting.

**Uniprot ID:** [O15455](#)

**NCBI:** [9606](#)

**Host / Isotype:** Mouse / IgG1

**Clone:** 40C1285.6

**Immunogen:** KLH-conjugated synthetic peptide of human TLR3

**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

**Applications:** Flow cytometry (Cell Surface).  
Flow cytometry (Intracellular): 0.5-1.0 µg/10e6 cells.  
Immunofluorescence / Immunocytochemistry.  
Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

**Specificity:** This antibody detects CD283 / TLR3.

**Species Reactivity:** **Tested:** Human, mouse, dog

**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. Muzio M, Natoli G, Saccani S, Levrero M, and Mantovani A. J. Exp. Med. 187: 2097-2101 (1998).
2. Medzhitov R and Janeway CA. Cell 91: 295-298 (1997).
3. Chuang TH and Ulevitch RJ. Biochim. Biophys. Acta 1518 (1-2): 157-161 (2001)
4. Rock FL., Hardiman G., Timans JC., Kastelein RA. and Bazan JF. Proc. Natl. Acad. Sci. U.S.A. 95 (2), 588-593 (1998).
5. Muzio M, Polentarutti N, Bosisio D, Prahlanan MK, Mantovani A. Toll-like receptors: a growing family of immune receptors that are differentially expressed and regulated by different leukocytes. J Leukoc Biol. 2000 Apr;67(4):450-6. PubMed PMID: 10770275.
6. Muzio M, Bosisio D, Polentarutti N, D'amico G, Stoppacciaro A, Mancinelli R, et al. Differential expression and regulation of toll-like receptors (TLR) in human leukocytes: selective expression of TLR3 in dendritic cells. J Immunol. 2000 Jun 1;164(11):5998-6004. PubMed PMID: 10820283.

**Pictures:** Intracellular flow analysis of TLR3 in 10e6 ThP1 cells using 0.5 µg of SM7101AF647. The shaded histogram represents ThP1 cells alone, green represents isotype control; and red represents TLR3 antibody.

