

PE anti-mouse CD283 (TLR3) Antibody

Catalog# / Size	141903 / 25 µg 141904 / 100 µg
Clone	11F8
Regulatory Status	RUO
Other Names	Toll like receptor 3
Isotype	Rat IgG2a
Description	Toll-like receptor 3 (TLR3), also known as CD283, is type I transmembrane protein that belongs to the TLR family. It forms a large horseshoe shape that contacts a neighboring horseshoe, forming a dimer of two horseshoes. It is characterized by an extracellular domain with leucine-rich repeats and a cytoplasmic domain with homology to the type I IL-1 receptor. TLR3 is expressed selectively on the cytoplasmic membrane and intracellularly in dendritic cells. It is also highly expressed in the placenta, pancreas, heart, liver, lung, and muscle. TLR3 is a pattern recognition receptor that participates in innate immune response to microbial pathogens by recognizing polyinosine-polycytidylic acid (Poly(I:C)) and dsRNA. Ligand binding by TLR3 induces receptor dimerization which results in inducing NF-κB activation (via TRIF-linked RIP1/TLR3 interactions) and cytokine production. TLR3 has been shown to interact with a number of proteins including MYD88, TRAF6, TRIAD3, MAP3K7, and TAB2.

Product Details

Verified Reactivity	Mouse
Antibody Type	Monoclonal
Host Species	Rat
Immunogen	Recombinant mouse TLR3 extracellular domain.
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.
Preparation	The antibody was purified by affinity chromatography and conjugated with PE under optimal conditions.
Concentration	0.2 mg/ml
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. Do not freeze.
Application	ICFC - Quality tested
Recommended Usage	Each lot of this antibody is quality control tested by intracellular immunofluorescent staining with flow cytometric analysis . For flow cytometric staining, the suggested use of this reagent is ≤0.125 µg per million cells in 100 µl volume. It is recommended that the reagent be titrated for optimal performance for each application.
Excitation Laser	Blue Laser (488 nm) Green Laser (532 nm)/Yellow-Green Laser (561 nm)
Application Notes	Additional reported application (for the relevant formats) include: immunohistochemical staining of frozen tissue ¹ .
Application References	1. McCartney S, <i>et al.</i> 2009. <i>J. Exp. Med.</i> 13:2967. (IHC)
(PubMed link indicates BioLegend citation)	
Product Citations	1. Stone AEL, <i>et al.</i> 2019. <i>Nat Commun.</i> 10:3649. PubMed 2. Qu J, <i>et al.</i> 2018. <i>J Immunol Res.</i> 2018:7519856. PubMed
RRID	AB_10895749 (BioLegend Cat. No. 141903)

Antigen Details

Structure	Toll-like receptor family member; type I membrane protein containing multiple leucine repeats and a interleukin-1 receptor like region in the extracellular domain. Predicted molecular weight approximately 116 kD.
Distribution	Selective expression in dendritic cells. Highly expressed in placenta and the pancreas; also expressed in heart, liver, lung and muscle.
Function	Pattern recognition receptor that participates in innate immune response to microbial pathogens. TLR3 ligands induce NF- κ B (via TRIF-linked RIP1/TLR3 interactions) and cytokine production. TLR3 stimulation results in the production of cytokines.
Interaction	MYD88, TRAF6, TRIAD3, MAP3K7, and TAB2.
Ligand/Receptor	Polyinosine-polycytidylic acid (Poly(I:C)), dsRNA.
Cell Type	Dendritic cells
Biology Area	Cell Biology, Immunology, Innate Immunity, Signal Transduction
Molecular Family	CD Molecules, Toll Like Receptors
Antigen References	<ol style="list-style-type: none"> 1. Alexopoulou L, <i>et al.</i> 2001. <i>Nature</i> 413:732. 2. Doyle SE, <i>et al.</i> 2002. <i>Immunity</i> 17:251. 3. Meylan E, <i>et al.</i> 2004. <i>Nat Immunol.</i> 5:503. 4. Muzio M, <i>et al.</i> 2000. <i>J. Immunol.</i> 164:5998. 5. Rock FL, <i>et al.</i> 1998. <i>P. Natl. Acad. Sci. USA</i> 95:588.
Gene ID	142980

Related Protocols

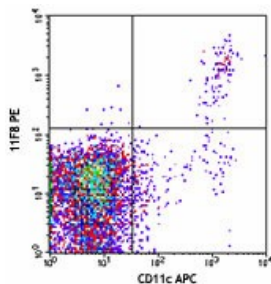
[Intracellular Cytokine Staining Protocol - Video](#)

[Intracellular Flow Cytometry Staining Protocol](#)

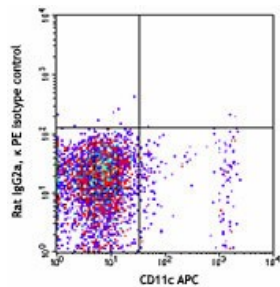
Other Formats

PE anti-mouse CD283 (TLR3), APC anti-mouse CD283 (TLR3)

Product Data



C57BL/6 mouse splenocytes were surface stained with CD4/CD19/Ly-6G/NK1.1 PerCP, CD11c APC and CD8 FITC, followed by intracellular staining with TLR3 (clone 11F8) PE (top) or rat IgG2a, κ PE isotype control (bottom). The data was analyzed by gating on CD4/CD19/Ly-6G/NK1.1 negative and CD8 positive cells.



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