

Ultra-LEAF™ Purified anti-mouse/human CD282 (TLR2) Recombinant Antibody

Catalog# / Size	153001 / 100 µg 153002 / 1 mg
Clone	QA16A01
Regulatory Status	RUO
Other Names	Toll-like receptor 2, TLR-2, TIL4, CD282, TLR2
Isotype	Mouse IgG1, κ
Description	CD282 (Toll-like receptor 2, TLR2) is an 85kDa, type I transmembrane protein, with 14 leucine-rich repeats (LRR) in the extracellular domain and a toll/IL-1R (TIR) in the cytoplasmic region. TLR2 is expressed by monocytes/macrophages, dendritic cells, granulocytes, endothelial cell and epithelial cells. TLR2 associates with TLR1 and TLR6 in the cell surface and is involved in the recognition of pathogen-associated molecular patterns (PAMPs) such as peptidoglycan, lipoteichoic acid (LTA), lipoarabinomanan, lipoproteins, and LPS from certain Gram-negative bacteria, yeast, spirochete and fungi.

Product Details

Verified Reactivity	Mouse, Human
Antibody Type	Recombinant
Host Species	Mouse
Immunogen	Recombinant extracellular domain of murine TLR2
Formulation	0.2 µm filtered in phosphate-buffered solution, pH 7.2, containing no preservative. Endotoxin level is <0.01 EU/µg of the protein (<0.001 ng/µg of the protein) as determined by the LAL test.
Preparation	The Ultra-LEAF™ (Low Endotoxin, Azide-Free) Recombinant antibody was purified by affinity chromatography.
Concentration	The antibody is bottled at the concentration indicated on the vial, typically between 2 mg/mL and 3 mg/mL. Older lots may have also been bottled at 1 mg/mL. To obtain lot-specific concentration, please enter the lot number in our Concentration and Expiration Lookup or Certificate of Analysis online tools.
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C. This Ultra-LEAF™ solution contains no preservative; handle under aseptic conditions.
Application	FC - Quality tested Block - Verified
Recommended Usage	Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis . For flow cytometric staining, the suggested use of this reagent is ≤0.5 µg per million cells in 100 µl volume or 100 µl of whole blood. It is recommended that the reagent be titrated for optimal performance for each application.
Application Notes	Blocking of IL-6 and TNF-α production induced by P ₃ CSK ₄ on RAW264.7 cells was observed during development.
Product Citations	1. Sung PS, <i>et al.</i> 2019. Nat Commun. 10:2402. PubMed
RRID	AB_2650855 (BioLegend Cat. No. 153001) AB_2650856 (BioLegend Cat. No. 153002)
Disclaimer	1 x 10 ⁵ RAW264.1 cells were cultured in a 96-well plate and starved for 16 hours. Cells were then either left untreated or stimulated with P ₃ CSK ₄ (100mg/ml), adding isotype control (MOPC-21), parental clone, or recombinant QA16A01. Supernatant was harvested and TNF-α and IL-6 production was determined using BioLegend sandwich ELISAs. Purple bars indicate antibodies at

1µg. Orange bars indicate antibodies at 10µg. Black bars indicate a mean of all unstimulated samples, which includes wells with antibodies at 1 and 10µg but no P₃CSK₄.

Antigen Details

Structure	Type I transmembrane protein, 14 leucine-rich repeats (LRR) in the extracellular domain, the intracellular domain contains a toll/IL-1R (TIR) domain.
Distribution	Monocytes/macrophages, dendritic cells, granulocytes, endothelial cell, epithelial cells.
Function	Activates innate host defense, induces production of pro-inflammatory cytokines.
Interaction	TLR1, TLR6 , MYD88 and TRAF6.
Ligand/Receptor	Peptidoglycan, lipoteichoic acid (LTA), lipoarabinomanan, lipoproteins, as well as different LPS from certain Gram-negative bacteria, yeast, spirochete and fungi.
Cell Type	Dendritic cells, Endothelial cells, Epithelial cells, Granulocytes, Macrophages, Monocytes, Neutrophils
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. Biswas S, <i>et al.</i> 2016. <i>Blood.</i> 127:2618.2. Wang Y, <i>et al.</i> 2016. <i>Proc. Natl. Acad. Sci. USA</i> 113:884.3. Ramstead AG, <i>et al.</i> 2016. <i>Infect. Immun.</i> 84:940.4. Scheeren FA, <i>et al.</i> 2014. <i>Nat. Cell. Biol.</i> 16:1238.5. Barbalat R, <i>et al.</i> 2009. <i>Nat. Immunol.</i> 10:1200.
Gene ID	24088 7097

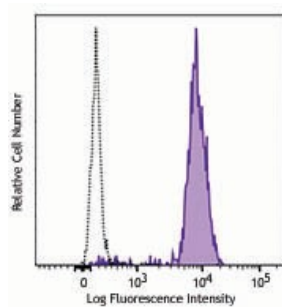
Related Protocols

[Cell Surface Flow Cytometry Staining Protocol](#)

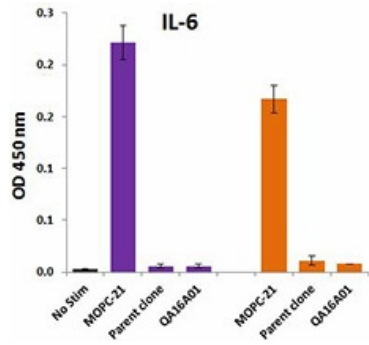
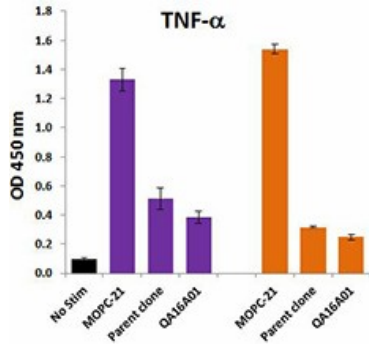
Other Formats

Ultra-LEAF™ Purified anti-mouse/human CD282 (TLR2) Recombinant Antibody, APC anti-mouse/human CD282 (TLR2) Recombinant Antibody, Alexa Fluor® 647 anti-mouse/human CD282 (TLR2) Recombinant Antibody, PE anti-mouse/human CD282 (TLR2) Recombinant Antibody, KIRAVIA Blue 520™ anti-mouse/human CD282 (TLR2) Recombinant Antibody, PE/Cyanine7 anti-mouse/human CD282 (TLR2) Recombinant Antibody

Product Data



Human peripheral blood monocytes were stained with purified CD282 (clone QA16A01, filled histogram) or purified mouse IgG1, κ isotype control, followed by anti-mouse IgG PE.



1 x 10⁵ RAW264.1 cells were cultured in a 96-well plate and starved for 16 hours. Cells were then either left untreated or stimulated with P₃CSK₄ (100ng/ml), adding isotype control (MOPC-21), parental clone, or recombinant QA16A01. Supernatant was harvested and TNF-α and IL-6 production was determined using BioLegend sandwich ELISAs. Purple bars indicate antibodies at 1μg. Orange bars indicate antibodies at 10μg. Black bars indicate a mean of all unstimulated samples, which includes wells with antibodies at 1 and 10μg but no P₃CSK₄.

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