CD282 (TLR2) Monoclonal Antibody (6C2), eBioscience™

Product Details	
Size	100 µg
Species Reactivity	Mouse
Published Species	Mouse, Human
Host/Isotype	Rat / IgG2b, kappa
Class	Monoclonal
Type	Antibody
Clone	6C2
Conjugate	Unconjugated
Form	Liquid
Concentration	0.5 mg/mL
Purification	Affinity chromatography
Storage buffer	PBS, pH 7.2
Contains	0.09% sodium azide
Storage conditions	4° C
RRID	AB_468546

Applications	Tested Dilution	Publications
Immunohistochemistry (IHC)	-	3 Publications
Immunohistochemistry (Frozen) (IHC (F))	Assay-Dependent	2 Publications
Immunocytochemistry (ICC/IF)	5 µg/ml	3 Publications
Flow Cytometry (Flow)	1 µg/test	5 Publications
Immunoprecipitation (IP)	Assay-Dependent	-
Neutralization (Neu)	-	1 Publication

Product Specific Information

Description: The 6C2 monoclonal antibody reacts with mouse Toll-like receptor 2 (TLR2). Mouse TLR2 is expressed by the myeloid lineage, including macrophage and dendritic cells in splenocytes and the RAW264.7 cell line. To date, at least twelve members of the Toll family have been identified in human and mouse. This family of type I transmembrane proteins is characterized by an extracellular domain with leucine-rich repeats and a cytoplasmic domain with homology to the type I IL-1 receptor. Two of these receptors, TLR2 and TLR4, are pattern recognition receptors and signaling molecules in response to bacterial lipoproteins and have been implicated in innate immunity and inflammation. TLR2 is expressed on the surface of cells and is responsible for distinguishing different pathogens.

Applications Reported: This 6C2 antibody has been reported for use in flow cytometric analysis, immunoprecipitation, and immunohistology staining of frozen tissue sections. Unpublished preliminary studies indicate that this antibody may inhibit some aspects of monocyte activation through TLR2, however, it may not result in complete blocking of TLR2 function. For optimal flow cytometry staining with this antibody, it is recommended that a directly conjugated 6C2 (FITC, PE, or Biotin) be used in combination with FcR blocking with anti-mouse CD16/CD32 (clone 93, cat. 14-0161).

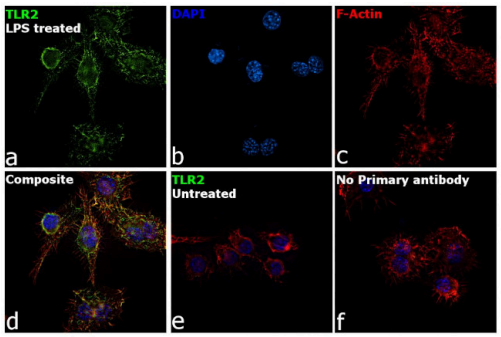
Applications Tested: The 6C2 antibody has been tested by flow cytometric analysis of mouse splenocytes or Raw264.7 cells. This can be used at less than or equal to 1 µg per test. A test is defined as the amount (µg) of antibody that will stain a cell sample in a final volume of 100 µL. Cell number should be determined empirically but can range from 10^5 to 10^8 cells/test. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

Purity: Greater than 90%, as determined by SDS-PAGE.

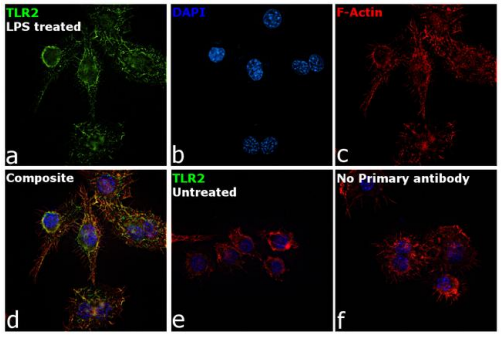
Aggregation: Less than 10%, as determined by HPLC.

Filtration: 0.2 µm post-manufacturing filtered.

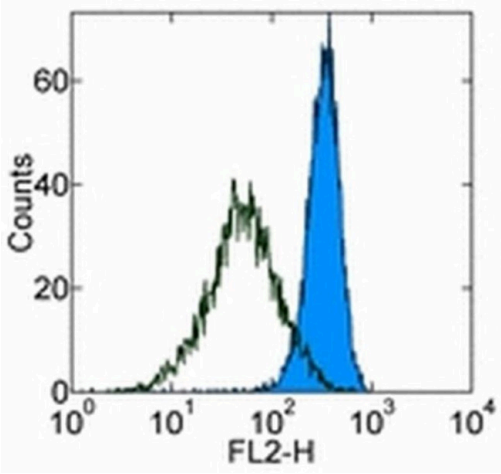
Product Images For CD282 (TLR2) Monoclonal Antibody (6C2), eBioscience™



CD282 (TLR2) Antibody (14-9021-82) in ICC/IF
Immunofluorescence analysis of TLR2 was performed using Raw 264.7 cells and Raw 264.7 treated with LPS (500 ng/mL, 6 hours). The cells were fixed with 4% paraformaldehyde for 10 minutes, and blocked with 2% BSA for 1 hour at room temperature. The cells were labeled with TLR2 Rat Monoclonal Antibody (Product # 14-9021-80) at 5 µg/mL in 0.1% BSA and incubated overnight at 4 degree and then labeled with Goat anti-Rat IgG (H+L) Cross-Adsorbed Secondary Antibody, Alexa Fluor 488 (Product # A-11006) at a dilution of 1:2000 for 45 minutes at room temperature (Panel a: green) in Raw 264.7 treated cells. Nuclei (Panel b: blue) were stained with ProLong™ Diamond Antifade Mountant with DAPI (Product # P36962). F-actin (Panel c: red) was stained with Rhodamine Phalloidin (Product # R415, 1:300). Panel d represents the merged image of Raw 264.7 treated cells, which shows higher expression for TLR2 protein showing localization in lipid rafts in membrane. Panel e represents the merged image of Raw 264.7 cells, that shows lower expression for TLR2 protein. Panel f represents control cells with no primary antibody to assess background. The images were captured at 60X magnification.



CD282 (TLR2) Antibody (14-9021-82)
Altered expression of target protein upon cell treatment demonstrates antibody specificity. Immunofluorescence analysis of TLR2 using TLR2 Rat Monoclonal Antibody (Product # 14-90-2180) shows increased expression of TLR2 protein in Raw 264.7 cell line upon treatment with LPS in membrane lipid rafts. {TM}



CD282 (TLR2) Antibody (14-9021-82) in Flow
Staining of Raw264-7 cells with 0.5 µg Rat IgG2b K Isotype Control Purified (Product # 14-4031-82) (open histogram) or 0.5 µg Anti-Mouse CD282 (TLR2) Purified (filled histogram) followed by Anti-Rat IgG Biotin (Product # 13-4813-85) and Streptavidin PE (Product # 12-4317-87).Total viable cells were used for analysis.

View more figures on thermofisher.com

14 References

Immunohistochemistry (3)

Journal of Alzheimer's disease : JAD

Bacterial Amyloid Curli Associated Gut Epithelial Neuroendocrine Activation Predominantly Observed in Alzheimer's Disease Mice with Central Amyloid- Pathology.

"14-9021-82 was used in Immunohistochemistry to reveal the importance of pathological changes within the gut-vagus-brain signaling in response to luminal bacterial amyloid that might play a vital role in central A pathogenesis seen in the AD brain."

Authors: Das TK,Blasco-Conesa MP,Korf J,Honarpisheh P,Chapman MR,Ganesh BP

Year 2022

Species Mouse

Dilution 1:100

Journal of immunology (Baltimore, Md. : 1950)

Protective role for TLR4 signaling in atherosclerosis progression as revealed by infection with a common oral pathogen.

"Published figure using CD282 (TLR2) monoclonal antibody (Product # 14-9021-82) in Immunohistochemistry"

Authors: Hayashi C,Papadopoulos G,Gudino CV,Weinberg EO,Barth KR,Madrigal AG,Chen Y,Ning H,LaValley M, Gibson FC,Hamilton JA,Genco CA

Year 2012

View more IHC references on thermofisher.com

Immunohistochemistry (Frozen) (2)

Biochemical and biophysical research communications

TLR2 has a detrimental role in mouse transient focal cerebral ischemia.

Authors: Ziegler G,Harhausen D,Schepers C,Hoffmann O,Röhr C,Prinz V,König J,Lehrach H,Nietfeld W,Trendelenburg G

Year 2007

Arthritis research & therapy

TLR2 modulates inflammation in zymosan-induced arthritis in mice.

Authors: Frasnelli ME,Tarussio D,Chobaz-Péclat V,Busso N,So A

Year 2005

More applications with references on thermofisher.com

ICC/IF (3) **Flow (5)** **Neu (1)**