

CD281 (TLR1) Monoclonal Antibody (GD2.F4), Functional Grade, eBioscience™

Product Details	
Size	100 µg
Species Reactivity	Human
Published Species	Human
Host/Isotype	Mouse / IgG1, kappa
Recommended Isotype Control	Mouse IgG1 kappa Isotype Control (P3.6.2.8.1), Functional Grade, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	GD2.F4
Conjugate	Functional Grade
Form	Liquid
Concentration	1 mg/mL
Purification	Affinity chromatography
Storage buffer	PBS, pH 7.2
Contains	no preservative
Storage conditions	4° C
RRID	AB_469275

Applications	Tested Dilution	Publications
Flow Cytometry (Flow)	1 µg/test	3 Publications
ELISA (ELISA)	-	1 Publication
Neutralization (Neu)	-	5 Publications
Functional Assay (FN)	Assay-Dependent	2 Publications
Control (Ctrl)	Assay-Dependent	-

Product Specific Information

Description: The GD2.F4 antibody reacts with human Toll-like receptor 1 (TLR1). TLR1 is expressed in low numbers on the surface of peripheral blood monocytes and even lower numbers on dendritic cells. A very high degree of donor variability has been reported for TLR1 expression. eBioscience manufactured GD2.F4 mAb has been tested by flow cytometry, in parallel with a sample from the developer using cells from healthy donors. eBioscience and the reference antibody gave similar results: donors tested confirmed low levels expression of TLR1 on PBMC (less than 1/4 log shift). While the ligand and exact function of TLR1 are not defined yet, it has been suggested that TLR1 may cooperate with TLR2 in response to certain antagonists. Despite low levels of surface expression as detected by flow cytometric analysis, TLRs are efficient signal transducing molecules in monocytes and dendritic cells. To date, at least ten members of the Toll family have been identified in human. 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.

Applications Reported: The GD2.F4 antibody has been reported for use in flow cytometric analysis. To date, inhibition of function has not been reported.

Applications Tested: The GD2.F4 antibody has been tested by flow cytometric analysis of normal human peripheral blood 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 10⁵ to 10⁸ cells/test. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

Storage and handling: Use in a sterile environment.

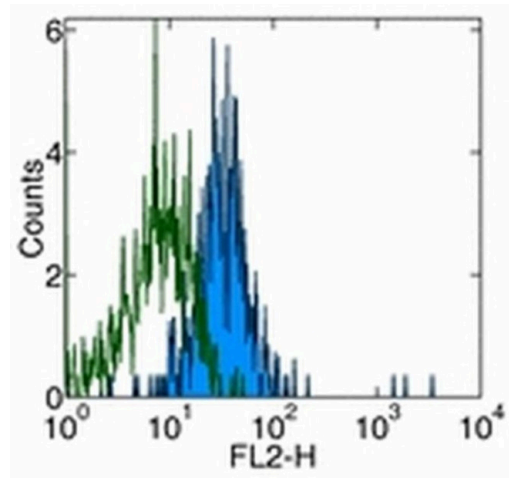
Filtration: 0.2 µm post-manufacturing filtered.

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

Endotoxin Level: Less than 0.001 ng/µg antibody, as determined by LAL assay.

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

Product Images For CD281 (TLR1) Monoclonal Antibody (GD2.F4), Functional Grade, eBioscience™



CD281 (TLR1) Antibody (16-9911-82) in Flow
Staining of normal human peripheral blood cells with Anti-Human CD281 (TLR1) PE. Appropriate isotype controls were used (open histogram). Cells in the monocyte population were used for analysis.

11 References

Flow Cytometry (3)

iScience	Year 2022
Neuregulin-1/ErbB4 signaling modulates <i>Plasmodium falciparum</i> HRP2-induced damage to brain cortical organoids.	Species Human
"16-9911-82 was used in Flow cytometry/Cell sorting to indicate that HRP2 mediates malaria-associated HRP2-induced brain injury and inflammation and that NRG1 may be an effective therapy against HRP2 effects in the brain."	
Authors: Harbuzariu A,Nti A,Harp KO,Cespedes JC,Driss A,Stiles JK	

Journal of neuroscience research	Year 2021
Toll-like receptor 10 controls TLR2-induced cytokine production in monocytes from patients with Parkinson's disease.	
"Published figure using CD281 (TLR1) monoclonal antibody (Product # 16-9911-82) in Flow Cytometry"	
Authors: da Rocha Sobrinho HM,Saar Gomes R,da Silva DJ,Quixabeira VBL,Joosten LAB,Ribeiro de Barros Cardoso C,Ribeiro-Dias F	

[View more Flow references on thermofisher.com](#)

ELISA (1)

The Journal of biological chemistry	Year 2013
Human lipopolysaccharide-binding protein (LBP) and CD14 independently deliver triacylated lipoproteins to Toll-like receptor 1 (TLR1) and TLR2 and enhance formation of the ternary signaling complex.	Species Human
"16-9911 was used in an ELISA assay to demonstrate that LBP and sCD14 can drive ternary complex formation and TLR activation by acting as carriers of triacylated lipoproteins."	
Authors: Ranoa DRE,Kelley SL,Tapping RI	
	Dilution 1:2000

Neutralization (5)

Experimental parasitology	Year 2011
Proinflammatory responses by glycosylphosphatidylinositols (GPIs) of <i>Plasmodium falciparum</i> are mainly mediated through the recognition of TLR2/TLR1.	Species Human
"16-9911 was used in Blocking experiments to investigate the requirement of TLR1 and TLR6 for TLR2-mediated cell signaling and proinflammatory cytokine production by macrophages."	
Authors: Zhu J,Krishnegowda G,Li G,Gowda DC	
	Dilution 1:100

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More applications with references on thermofisher.com

FN (2)

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