

CD284 (TLR4) Monoclonal Antibody (HTA125), Functional Grade, eBioscience™

Product Details	
Size	100 µg
Species	Human
Published Species	Shark, Human, Mouse
Expression System	Mouse / IgG2a, kappa
Recommended Isotype Control	Mouse IgG2a kappa Isotype Control (eBM2a), Functional Grade, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	HTA125
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_469280

Applications	Tested Dilution	Publications
Flow Cytometry (Flow)	1 µg/test	10 Publications
Functional Assay (FN)	Assay-Dependent	2 Publications
Neutralization (Neu)	Assay-Dependent	12 Publications
ELISA (ELISA)	-	1 Publication
Immunocytochemistry (ICC)	-	1 Publication
Immunofluorescence (IF)	-	5 Publications
Immunohistochemistry (Paraffin) (IHC (P))	-	1 Publication
Inhibition Assays (IA)	-	4 Publications
Western Blot (WB)	-	1 Publication

Product Specific Information

Description: The HTA125 monoclonal antibody reacts with human Toll-like receptor 4 (TLR4). So far, at least ten members of the Toll family have been identified in humans. 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. TLR4 physically associates with another molecule called MD-2, and together with

CD14, this complex is responsible for LPS recognition and signaling. TLR4 is expressed by peripheral blood monocytes. HTA125 has been reported to immunoprecipitate human TLR4 (~100 kDa) from transfected cells. Most TLR cell surface expression, especially TLR1 and TLR4, occurs at low levels on monocytes and at even lower levels on other cell types including granulocytes and immature dendritic cells (iDC). Furthermore, a relatively high degree of variability in TLR surface expression has been reported among normal donors.

It is highly recommended that for optimal staining of TLR4, whole blood be stained using the lysed whole blood protocol (found in Best Protocols) rather than Ficoll-gradient prepared normal human peripheral blood cells. The use of a density gradient appears to reduce the staining intensity significantly.

Applications Reported: The HTA125 antibody has been reported for use in flow cytometric analysis. It has also been reported in blocking of LPS-induced cytokine production. For detection of peripheral monocytes, a three step staining protocol is recommended using purified anti-human TLR4 followed by biotin anti-mouse IgG and streptavidin-PE.

Applications Tested: The HTA125 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.

It is highly recommended that for optimal staining of TLR4, whole blood be stained using the LWB protocol found in Best Protocols rather than Ficoll-gradient prepared normal human peripheral blood cells. The use of a density gradient appears to reduce the staining intensity significantly.

Storage and handling: Use in a sterile environment.

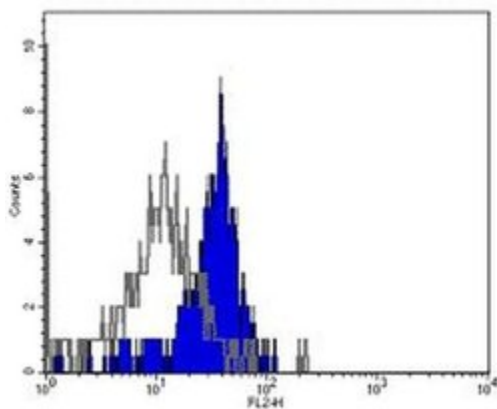
Filtration: 0.2 µm post-manufacturing filtered.

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 CD284 (TLR4) Monoclonal Antibody (HTA125), Functional Grade, eBioscience™



CD284 (TLR4) Antibody (16-9917-82) in Flow

Staining of normal human peripheral blood cells with Mouse IgG2a Isotype Control (Product # 16-4724-85) or Anti-Human CD284 (TLR4) Functional Grade Purified. Cells in the monocyte population were used for analysis.

[View more figures on thermofisher.com](https://www.thermofisher.com)

Flow Cytometry (10)

International journal of molecular medicine

Bacterial lipopolysaccharide and antimicrobial LL-37 enhance ICAM-1 expression and NF-B p65 phosphorylation in senescent endothelial cells.

"Published figure using CD284 (TLR4) monoclonal antibody (Product # 16-9917-82) in Flow Cytometry"

Authors: Suzuki K,Ohkuma M,Nagaoka I

Species
Not Applicable

Dilution
Not Cited

Year
2019

Oncology letters

Butyrate upregulates the TLR4 expression and the phosphorylation of MAPKs and NK-B in colon cancer cell *in vitro*.

"Published figure using CD284 (TLR4) monoclonal antibody (Product # 16-9917-82) in Flow Cytometry"

Authors: Xiao T,Wu S,Yan C,Zhao C,Jin H,Yan N,Xu J,Wu Y,Li C,Shao Q,Xia S

Species
Not Applicable

Dilution
Not Cited

Year
2018

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

Neutralization (12)

Molecular medicine reports

ToiLike receptor 4 promotes the phosphorylation of CRMP2 via the activation of Rhokinase in MCAO rats.

Authors: Li XB,Ding MX,Ding CL,Li LL,Feng J,Yu XJ

Species
Human
Not Applicable

Dilution
Not Cited
Not Cited

Year
2018

PLoS pathogens

Platelet proteome reveals novel pathways of platelet activation and platelet-mediated immunoregulation in dengue.

"16-9917 was used in Neutralization experiments to compare the protein content of platelets in clinical samples from patients with dengue with platelets from healthy donors."

Authors: Trugilho MRO,Hottz ED,Brunoro GVF,Teixeira-Ferreira A,Carvalho PC,Salazar GA,Zimmerman GA,Bozza FA,Bozza PT,Perales J

Species
Human

Dilution
Not Cited

Year
2017

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

More applications with references on thermofisher.com

WB (1) IF (5) ICC (1) IA (4) ELISA (1) FN (2) IHC (P) (1)

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