

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

Product Details	
Size	100 µg
Species Reactivity	Human
Published Species	Shark, Human
Host/Isotype	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
Western Blot (WB)	-	3 Publications
Immunohistochemistry (IHC)	-	3 Publications
Immunohistochemistry (Paraffin) (IHC (P))	-	1 Publication
Immunocytochemistry (ICC/IF)	-	3 Publications
Flow Cytometry (Flow)	1 µg/test	16 Publications
ELISA (ELISA)	-	1 Publication
Neutralization (Neu)	Assay-Dependent	15 Publications
Functional Assay (FN)	Assay-Dependent	2 Publications
Inhibition Assays (IA)	-	4 Publications

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.

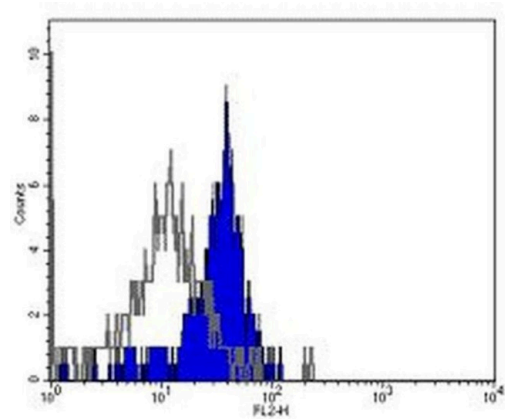
Filtration: 0.2 µm post-manufacturing filtered.

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.cn](http://thermofisher.cn)

Western Blot (3)

Innate immunity	Year 2021
Lys694Arg polymorphism leads to blunted responses to LPS by interfering TLR4 with recruitment of MyD88.	
"Published figure using CD284 (TLR4) monoclonal antibody (Product # 16-9917-82) in Western Blot"	
Authors: Yang Y,Hu Y,Zhou Y,Liang T,Tang H,Ju H,Shi Q,Fang H	
Lipids in health and disease	Year 2016
Lipopolysaccharide induces SBD-1 expression via the P38 MAPK signaling pathway in ovine oviduct epithelial cells.	
"Published figure using CD284 (TLR4) monoclonal antibody (Product # 16-9917-82) in Neutralization"	
Authors: Li Q,Bao F,Zhi D,Liu M,Yan Q,Zheng X,Ren L,Cong S,Li Y,Cao G	

[View more WB references on thermofisher.cn](#)

Immunohistochemistry (3)

<p>PloS one</p> <p>TLR4 Expression Is Associated with Left Ventricular Dysfunction in Patients Undergoing Coronary Artery Bypass Surgery.</p> <p>"Published figure using CD284 (TLR4) monoclonal antibody (Product # 16-9917-82) in Immunofluorescence"</p> <p>Authors: Avlas O,Bragg A,Fuks A,Nicholson JD,Farkash A,Porat E,Aravot D,Levy-Drummer RS,Cohen C,Shainberg A,Arad M,Hochhauser E</p>	<p>Year</p> <p>2016</p>
<p>PloS one</p> <p>Biologically active polymers from spontaneous carotenoid oxidation: a new frontier in carotenoid activity.</p> <p>"Published figure using CD284 (TLR4) monoclonal antibody (Product # 16-9917-82) in Immunocytochemistry"</p> <p>Authors: Johnston JB,Nickerson JG,Daroszewski J,Mogg TJ,Burton GW</p>	<p>Year</p> <p>2015</p>

[View more IHC references on thermofisher.cn](#)

More applications with references on thermofisher.cn

- IHC (P) (1)
- ICC/IF (3)
- Flow (16)
- ELISA (1)
- Neu (15)
- FN (2)
- IA (4)

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