

# CD284 (TLR4) Monoclonal Antibody (HTA125), eBioscience™

## Product Details

Size	25 µg
Species Reactivity	Human
Published Species	Baboon, Rabbit, Shark, Human, Mouse
Host/Isotype	Mouse / IgG2a, kappa
Class	Monoclonal
Type	Antibody
Clone	HTA125
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_468606

Applications	Tested Dilution	Publications
Western Blot (WB)	-	8 Publications
Immunohistochemistry (IHC)	-	6 Publications
Immunohistochemistry (Paraffin) (IHC (P))	Assay-Dependent	1 Publication
Immunohistochemistry (Frozen) (IHC (F))	-	1 Publication
Immunocytochemistry (ICC/IF)	-	5 Publications
Flow Cytometry (Flow)	1 µg/test	37 Publications
ELISA (ELISA)	-	2 Publications
Immunoprecipitation (IP)	Assay-Dependent	4 Publications
Neutralization (Neu)	Assay-Dependent	22 Publications
Functional Assay (FN)	Assay-Dependent	16 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, and immunoprecipitation. 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. (Please use Functional Grade purified HTA125, cat. 16-9917, in functional assays.).

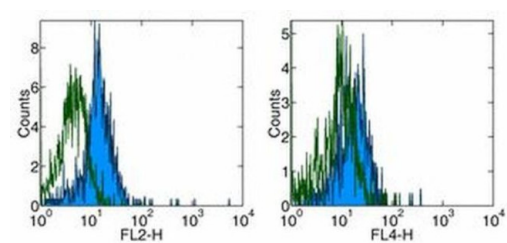
**Applications Tested:** The HTA125 antibody has been tested by flow cytometric analysis of normal human peripheral blood cells. This can be used at less than or equal to 1 µg per test. A test is defined as the amount (µg) of antibody that will stain a cell sample in a final volume of 100 µL. Cell number should be determined empirically but can range from 10<sup>5</sup> to 10<sup>8</sup> cells /test.

**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 CD284 (TLR4) Monoclonal Antibody (HTA125), eBioscience™**



**CD284 (TLR4) Antibody (14-9917-80) in Flow**  
Surface staining of normal human peripheral blood cells with Anti-Human CD284 (TLR4) PE (left), and Anti-Human CD284 (TLR4) APC (right). Appropriate isotype controls were used (open histogram). Cells in the monocyte population were used for analysis.

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Western Blot (8)

<p>Innate immunity</p> <p><b>Lys694Arg polymorphism leads to blunted responses to LPS by interfering TLR4 with recruitment of MyD88.</b></p> <p>"14-9917 was used in Immunoprecipitation to show that K694R reduced the recruitment of MyD88 in TLR4 signalling but had no impact on the interaction with myeloid differentiation factor 2."</p> <p>Authors: Yang Y,Hu Y,Zhou Y,Liang T,Tang H,Ju H,Shi Q,Fang H</p>	<p>Year 2021</p> <p>Species Human</p>
<p>Lipids in health and disease</p> <p><b>Lipopolysaccharide induces SBD-1 expression via the P38 MAPK signaling pathway in ovine oviduct epithelial cells.</b></p> <p>"Published figure using CD284 (TLR4) monoclonal antibody (Product # 14-9917-82) in Neutralization"</p> <p>Authors: Li Q,Bao F,Zhi D,Liu M,Yan Q,Zheng X,Ren L,Cong S,Li Y,Cao G</p>	<p>Year 2016</p>

View more WB references on thermofisher.com

Immunohistochemistry (6)

<p>Cells</p> <p><b>Flightless I Negatively Regulates Macrophage Surface TLR4, Delays Early Inflammation, and Impedes Wound Healing.</b></p> <p>"14-9917-82 was used in Immunohistochemistry to investigate if Flightless I regulation of TLR4 reduces early inflammation and decreases the M2 macrophage phenotype, leading to impaired healing."</p> <p>Authors: Mills SJ,Ahangar P,Thomas HM,Hofma BR,Murray RZ,Cowin AJ</p>	<p>Year 2022</p> <p>Species Mouse</p> <p>Dilution 1:100</p>
<p>PloS one</p> <p><b>TLR4 Expression Is Associated with Left Ventricular Dysfunction in Patients Undergoing Coronary Artery Bypass Surgery.</b></p> <p>"Published figure using CD284 (TLR4) monoclonal antibody (Product # 14-9917-82) 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 2016</p>

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- IHC (P) (1)
- IHC (F) (1)
- ICC/IF (5)
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- FN (16)
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