

# CD284 (TLR4) Monoclonal Antibody (HTA125), Super Bright™ 600, eBioscience™

Product Details	
Size	100 Tests
Species Reactivity	Human
Host/Isotype	Mouse / IgG2a, kappa
Recommended Isotype Control	Mouse IgG2a kappa Isotype Control (eBM2a), Super Bright™ 600, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	HTA125
Conjugate	Super Bright™ 600
Excitation/Emission Max	414/601 nm
Form	Liquid
Concentration	5 µL/Test
Purification	Affinity chromatography
Storage buffer	PBS, pH 7.2, with BSA
Contains	0.09% sodium azide
Storage conditions	4° C, store in dark, DO NOT FREEZE!
RRID	AB_2734949

Applications	Tested Dilution	Publications
Western Blot (WB)	-	1 Publication
Immunohistochemistry (IHC)	-	1 Publication
Flow Cytometry (Flow)	5 µL (0.5 µg)/test	6 Publications
Neutralization (Neu)	-	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: This HTA125 antibody has been reported for use in flow cytometric analysis.

**Applications Tested:** This HTA125 antibody has been pre-diluted and tested by flow cytometric analysis of cells transfected with human TLR4. This may be used at 5  $\mu$ L (0.5  $\mu$ g) per test. A test is defined as the amount ( $\mu$ g) of antibody that will stain a cell sample in a final volume of 100  $\mu$ L. Cell number should be determined empirically but can range from  $10^5$  to  $10^8$  cells /test.

Super Bright 600 is a tandem dye that can be excited with the violet laser line (405 nm) and emits at 600 nm. We recommend using a 610/20 bandpass filter. Please make sure that your instrument is capable of detecting this fluorochrome.

When using two or more Super Bright dye-conjugated antibodies in a staining panel, it is recommended to use Super Bright Complete Staining Buffer (Product # SB-4401-75) to minimize any non-specific polymer interactions. Please refer to the datasheet for Super Bright Staining Buffer for more information.

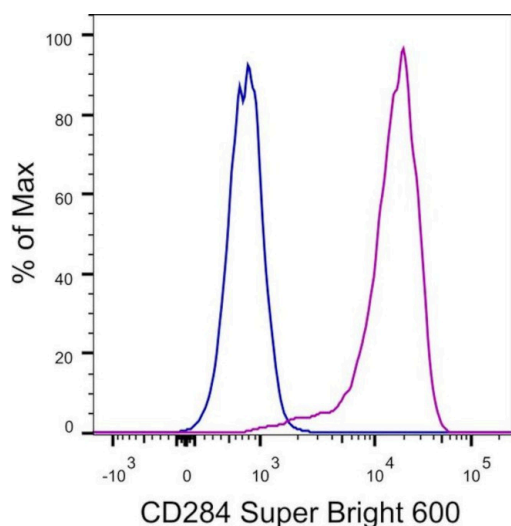
**Light sensitivity:** This tandem dye is sensitive to photo-induced oxidation. Please protect this vial and stained samples from light.

**Fixation:** Samples can be stored in IC Fixation Buffer (Product # 00-8222-49) (100  $\mu$ L of cell sample + 100  $\mu$ L of IC Fixation Buffer) or 1-step Fix/Lyse Solution (Product # 00-5333-57) for up to 3 days in the dark at 4°C with minimal impact on brightness and FRET efficiency/compensation. Some generalizations regarding fluorophore performance after fixation can be made, but clone specific performance should be determined empirically.

**Excitation:** 405 nm; **Emission:** 600 nm; **Laser:** Violet Laser

Super Bright Polymer Dyes are sold under license from Becton, Dickinson and Company.

### Product Images For CD284 (TLR4) Monoclonal Antibody (HTA125), Super Bright™ 600, eBioscience™



#### CD284 (TLR4) Antibody (63-9917-42) in Flow

Staining of cells transfected with human TLR4 with Mouse IgG2a kappa Isotype Control, Super Bright 600 (Product # 63-4724-82) (blue histogram) or CD284 Monoclonal Antibody, Super Bright 600 (purple histogram). Total viable cells were used for analysis.

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

## 12 References

### Western Blot (1)

Innate immunity

#### Lys694Arg polymorphism leads to blunted responses to LPS by interfering TLR4 with recruitment of MyD88.

"Published figure using CD284 (TLR4) monoclonal antibody (Product # 63-9917-42) in Western Blot"

Authors: Yang Y, Hu Y, Zhou Y, Liang T, Tang H, Ju H, Shi Q, Fang H

Year  
2021

### Immunohistochemistry (1)

PloS one

#### Biologically active polymers from spontaneous carotenoid oxidation: a new frontier in carotenoid activity.

"Published figure using CD284 (TLR4) monoclonal antibody (Product # 63-9917-42) in Immunohistochemistry"

Authors: Johnston JB, Nickerson JG, Daroszewski J, Mogg TJ, Burton GW

Year  
2015

### Flow Cytometry (6)

Particle and fibre toxicology

#### Saharan dust induces NLRP3-dependent inflammatory cytokines in an alveolar air-liquid interface co-culture model.

"Published figure using CD284 (TLR4) monoclonal antibody (Product # 63-9917-42) in Flow Cytometry"

Authors: Bredeck G, Dobner J, Stahmecke B, Fomba KW, Herrmann H, Rossi A, Schins RPF

Year  
2023

Cell reports

#### Mast cell tolerance in the skin microenvironment to commensal bacteria is controlled by fibroblasts.

"Published figure using CD284 (TLR4) monoclonal antibody (Product # 63-9917-42) in Flow Cytometry"

Authors: Di Nardo A, Chang YL, Alimohammadi S, Masuda-Kuroki K, Wang Z, Sriram K, Insel PA

Year  
2023

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

### More applications with references on thermofisher.com

### Neu (4)

For Research Use Only. Not for use in diagnostic procedures. Not for resale without express authorization. Products are warranted to operate or perform substantially in conformance with published Product specifications in effect at the time of sale, as set forth in the Production documentation, specifications and/or accompanying package inserts ("Documentation"). No claim of suitability for use in applications regulated by FDA is made. The warranty provided herein is valid only when used by properly trained individuals. Unless otherwise stated in the Documentation, this warranty is limited to one year from date of shipment when the Product is subjected to normal, proper and intended usage. This warranty does not extend to anyone other than the Buyer. Any model or sample furnished to Buyer is merely illustrative of the general type and quality of goods and does not represent that any Product will conform to such model or sample. NO OTHER WARRANTIES, EXPRESS OR IMPLIED, ARE GRANTED INCLUDING WITHOUT LIMITATION, IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR ANY PARTICULAR PURPOSE, OR NON-INFRINGEMENT. BUYER'S EXCLUSIVE REMEDY FOR NON-CONFORMING PRODUCTS DURING THE WARRANTY PERIOD IS LIMITED TO REPAIR, REPLACEMENT OF OR REFUND FOR THE NON-CONFORMING PRODUCT(S) AT SELLER'S SOLE OPTION. THERE IS NO OBLIGATION TO REPAIR, REPLACE OR REFUND FOR PRODUCTS AS THE RESULT OF (I) ACCIDENT, DISASTER OR EVENT OF FORCE MAJEURE, (II) MISUSE, FAULT OR NEGLIGENCE OF OR BY BUYER, (III) USE OF THE PRODUCTS IN A MANNER FOR WHICH THEY WERE NOT DESIGNED, OR (IV) IMPROPER STORAGE AND HANDLING OF THE PRODUCTS. Unless otherwise expressly stated on the Product or in the documentation accompanying the Product, the Product is intended for research only and is not to be used for any other purpose, including without limitation, unauthorized commercial uses, in vitro diagnostic uses, ex vivo or in vivo therapeutic uses, or any type of consumption by or application to human or animals.