

# 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 | 2 Publications |
| Neutralization (Neu)       | -                  | 3 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.

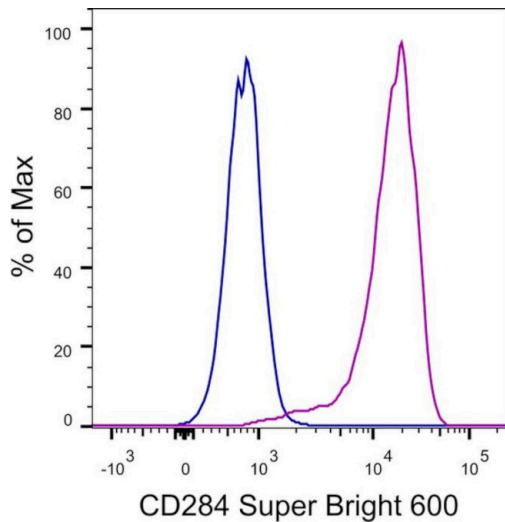
**Light sensitivity:** This tandem dye is sensitive to photo-induced oxidation. Please protect this vial and stained samples from light.

**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)

## 7 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 (2)

Scientific reports

#### **Bushfire smoke is pro-inflammatory and suppresses macrophage phagocytic function.**

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

Authors: Hamon R,Tran HB,Roscioli E,Ween M,Jersmann H,Hodge S

Year  
2018

The Journal of biological chemistry

#### **Body fluid exosomes promote secretion of inflammatory cytokines in monocytic cells via Toll-like receptor signaling.**

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

Authors: Bretz NP,Ridinger J,Rupp AK,Rimbach K,Keller S,Rupp C,Marmé F,Umansky L,Umansky V,Eigenbrod T, Sammar M,Altevogt P

Year  
2013

### More applications with references on thermofisher.com

### Neu (3)

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