

CD284 (TLR4) Monoclonal Antibody (HTA125), Super Bright™ 645, 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™ 645, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	HTA125
Conjugate	Super Bright™ 645
Excitation/Emission Max	414/645 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_2734951

Applications	Tested Dilution	Publications
Western Blot (WB)	-	1 Publication
Immunohistochemistry (IHC)	-	1 Publication
Flow Cytometry (Flow)	5 µL (0.5 µg)/test	4 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 μ L (0.5 μ g) per test. A test is defined as the amount (μ g) of antibody that will stain a cell sample in a final volume of 100 μ L. Cell number should be determined empirically but can range from 10^5 to 10^8 cells /test.

Super Bright 645 is a tandem dye that can be excited with the violet laser line (405 nm) and emits at 645 nm. We recommend using a 660/20 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.

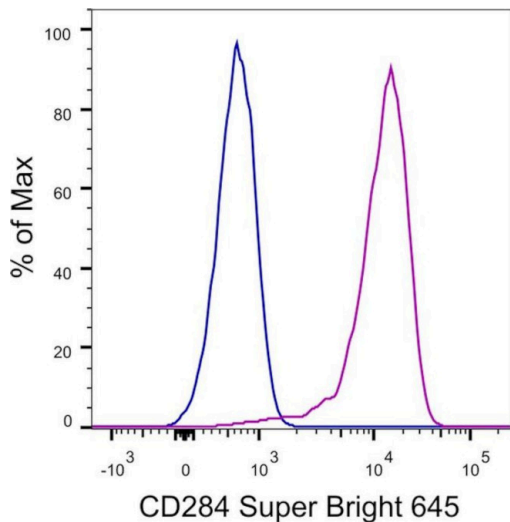
Light sensitivity: This tandem dye is sensitive to photo-induced oxidation. Please protect this vial and stained samples from light.

Fixation: Samples can be stored in IC Fixation Buffer (Product # 00-8222-49) (100 μ L of cell sample + 100 μ 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:** 645 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™ 645, eBioscience™



CD284 (TLR4) Antibody (64-9917-42) in Flow
Staining of cells transfected with human TLR4 with Mouse IgG2a kappa Isotype Control, Super Bright 645 (Product # 64-4724-82) (blue histogram) or CD284 Monoclonal Antibody, Super Bright 645 (purple histogram). Total viable cells were used for analysis.

[View more figures on thermofisher.com](#)

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 # 64-9917-42) 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 # 64-9917-42) in Immunohistochemistry"

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

Year
2015

Flow Cytometry (4)

Frontiers in pharmacology

Grindelia squarrosa Extract and Grindelic Acid Modulate Pro-inflammatory Functions of Respiratory Epithelium and Human Macrophages.

"Published figure using CD284 (TLR4) monoclonal antibody (Product # 64-9917-42) in Flow Cytometry"

Authors: Gierlikowska B,Filipek A,Gierlikowski W,Kania D,Stefaska J,Demkow U,Kiss AK

Year
2021

Scientific reports

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

"Published figure using CD284 (TLR4) monoclonal antibody (Product # 64-9917-42) in Flow Cytometry"

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

Year
2018

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

More applications with references on thermofisher.com

Neu (4)

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