SONY

Product Data Sheet

PE anti-human CD284 (TLR4)

Catalog # / Size: 2164030 / 100 tests
2164025 / 25 tests

Clone: HTA125

Isotype: Mouse IgG2a, κ

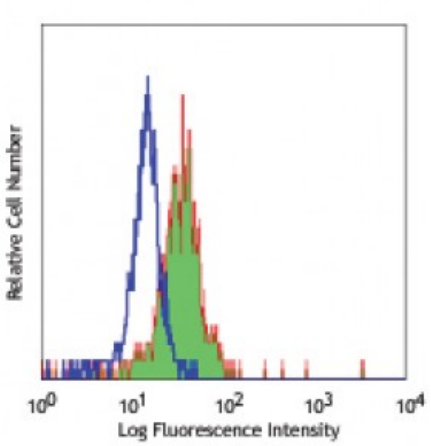
Immunogen: Ba/F3 cell line expressing human TLR4

Reactivity: Human

Preparation: The antibody was purified by affinity chromatography, and conjugated with PE under optimal conditions. The solution is free of unconjugated PE and unconjugated antibody.

Formulation: Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and 0.2% (w/v) BSA (origin USA).

Concentration: Lot-specific



Human peripheral blood monocytes stained with HTA125 PE

Applications:

Applications: Flow Cytometry

Recommended Usage: Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. **Test size products are transitioning from 20 microL to 5 microL per test**. Please check your vial or your CoA to find the suggested use of this reagent per million cells in 100 microL staining volume or per 100 microL of whole blood. It is recommended that the reagent be titrated for optimal performance for each application.

Application Notes: Additional reported applications (for the relevant formats) include: immunohistochemical staining of acetone-fixed frozen sections4, immunofluorescence microscopy[6], Western blotting[10], and *in vitro* blocking of LPS-induced cytokine production[2,3,7,9]. This clone was tested in-house and does not work on formalin fixed paraffin-embedded (FFPE) tissue. For most successful immunofluorescent staining results, it may be important to maximize signal over background by using a relatively bright fluorochrome-antibody conjugate (Cat. No. 312806) or by using a high sensitivity, three-layer staining technique (e.g., including a biotinylated antibody (Cat. No. 312804) or biotinylated anti-mouse IgG second step (Cat. No. 405303), followed by SAv-PE (Cat. No. 405204). The LEAF™ purified antibody (Endotoxin <0.1 EU/µg, Azide-Free, 0.2 µm filtered) is recommended for functional assays (Cat. No. 312807). For highly sensitive assays, we recommend Ultra-LEAF™ purified antibody (Cat. No. 312814) with a lower endotoxin limit than standard LEAF™ purified antibodies (Endotoxin <0.01 EU/microg).

Application References:

1. Skimazu R, *et al.* 1999. *J. Exp. Med.* 189:1777.
2. Wang R, *et al.* 2003. *Hybrid Hybridomics* 22:357. (Block)
3. Wang JE, *et al.* 2001. *Infect. Immun.* 69:2402. (Block)
4. Ishihara S, *et al.* 2004 *J. Immunol.* 173:1406. (IHC)
5. Kawahara T, *et al.* 2001 *Infect. Immun.* 69:4382.
6. Jiang Q, *et al.* 2000. *J. Immunol.* 165:3541. (IF)
7. Sugawara S, *et al.* 2001. *Infect. Immun.* 69:4951. (Block)
8. Chavakis E, *et al.* 2007. *Circ. Res.* 100:204. PubMed
9. Bhattacharyya S, *et al.* 2007. *Am. J. Physiol. Gastrointest Liver Physiol.* doi:10.1152/ajpgi.00149. (Block) PubMed

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10. Baumgarten G, *et al.* 2001. *J. Infectious. Dis.* 183:1617.

Description: Toll-like receptors are type I transmembrane signaling receptors. They are primordial pathogen-recognition proteins that function as sentinels for the innate immune system. TLR4, also known as CD284, is a 110 kD protein which is expressed on monocytes/macrophages, endothelial cells, and at low levels on B cells and granulocytes. In association with a secretory molecule, MD2, TLR4 has been recognized as critical for host recognition of bacterial LPS. HTA125 antibody is useful for flow cytometric analysis and is able to block LPS-induced cytokine production.

Antigen References:

1. Skimazu R, *et al.* 1999. *J. Exp. Med.* 189:1777.

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