

**APC anti-human CD284 (TLR4)**

**Catalog # / Size:** 2164075 / 25 tests  
2164080 / 100 tests

**Clone:** HTA125

**Isotype:** Mouse IgG2a, κ

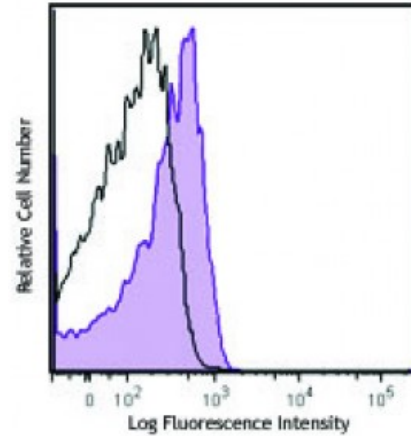
**Immunogen:** Ba/F3 cell line expressing human TLR4

**Reactivity:** Human

**Preparation:** The antibody was purified by affinity chromatography and conjugated with APC under optimal conditions. The solution is free of unconjugated APC 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 were stained with CD284 (clone HTA125) APC (filled histogram) or mouse IgG2a, κ APC isotype control (open histogram).

**Applications:**

**Applications:** Flow Cytometry

**Recommended Usage:** Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. For flow cytometric staining, the suggested use of this reagent is 5 microL per million cells or 5 microL 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 sections<sup>4</sup>, immunofluorescence microscopy<sup>6</sup>, Western blotting<sup>10</sup>, and *in vitro* blocking of LPS-induced cytokine production<sup>2,3,7,9</sup>. 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](#)

**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.