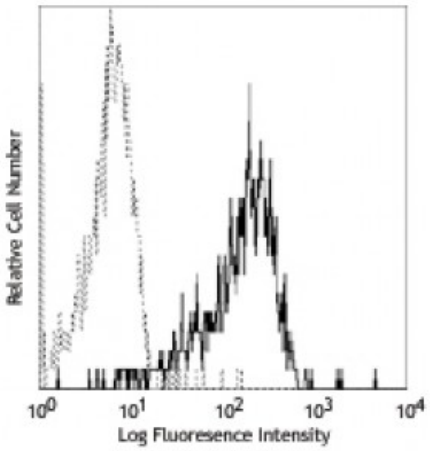
SONY

Product Data Sheet

Purified anti-human CD284 (TLR4)

Catalog # / Size:	2164010 / 100 µg
Clone:	HTA125
Isotype:	Mouse IgG2a, κ
Immunogen:	Ba/F3 cell line expressing human TLR4
Reactivity:	Human
Preparation:	The antibody was purified by affinity chromatography.
Formulation:	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.
Concentration:	0.5



Human peripheral blood monocytes stained with HTA125 PE

Applications:

Applications:	Immunofluorescence
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 ≤2.0 microg per million cells in 100 microL volume. 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
10. Baumgarten G, *et al.* 2001. *J. Infectious. Dis.* 183:1617.

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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.