

Monoclonal Antibody to CD40 / TNFRSF5 - FITC -

Alternate names:	B-cell surface antigen CD40, Bp50, CD40L receptor, CDw40, TNFRSF5, Tumor necrosis factor receptor superfamily member 5
Catalog No.:	AM03135FC-N
Quantity:	100 Tests
Background:	CD40 is a costimulatory molecule of the TNF receptor superfamily and is expressed on many cell types, such as B cells, monocytes/macrophages, dendritic cells, endothelial cells, fibroblasts or vascular smooth muscle cells. Interaction of CD40 and its ligand CD154 (CD40L) is required for the generation of antibody responses to T-dependent antigens as well as for the development of germinal centers and memory B cells. In monocytes/macrophages CD40 engagement induces production of pro-inflammatory cytokines and chemokines. CD40-CD154 interactions are also critical for development of CD4 T cell-dependent effector functions. CD40 links innate and adaptive immune responses to bacterial stimuli and serves as an important regulator affecting functions of other costimulatory molecules.
Uniprot ID:	P25942
NCBI:	NP_001241.1
GeneID:	958
Host / Isotype:	Mouse / IgG1
Clone:	HI40a
Immunogen:	Human CD40a
Format:	State: Liquid Ig fraction Buffer System: Phosphate buffered saline (PBS) containing 15 mM sodium azide and 0.2% (w/v) high-grade protease free Bovine Serum Albumin (BSA) as a stabilizing agent Label: FITC – Conjugated with Fluorescein isothiocyanate under optimum conditions. Free of unconjugated
Applications:	Flow Cytometry analysis of human blood cells using 20 µl reagent / 100 µl of whole blood or 10e6 cells in a suspension. Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.
Specificity:	This antibody recognizes CD40 (BP50), a 48 kDa type I single chain transmembrane glycoprotein expressed on normal and neoplastic B cells, but not on terminally differentiated plasma cells. CD40 antigen is also present on Hodgkin's and Reed-Sternberg cells, follicular dendritic cells, some macrophages, basal epithelial cells and endothelial cells. Species: Human. Other species not tested.

For research and in vitro use only. Not for diagnostic or therapeutic work.

Material Safety Datasheets are available at www.acris-antibodies.com or on request.

Antibody Hotline - Technical Questions - Antibody Location Service
Free Call: 0800-2274746 (Germany only) - www.acris-antibodies.com



- Storage:** Store the antibody at 2 - 8 °C. DO NOT FREEZE! This product is photosensitive and should be protected from light.
Shelf life: one year from despatch.
- General Readings:**
1. Oxenius A, Campbell KA, Maliszewski CR, Kishimoto T, Kikutani H, Hengartner H, et al. CD40-CD40 ligand interactions are critical in T-B cooperation but not for other anti-viral CD4+ T cell functions. *J Exp Med*. 1996 May 1;183(5):2209-18. PubMed PMID: 8642330.
 2. Grewal IS, Flavell RA. The role of CD40 ligand in costimulation and T-cell activation. *Immunol Rev*. 1996 Oct;153:85-106. PubMed PMID: 9010720.
 3. Pearson LL, Castle BE, Kehry MR. CD40-mediated signaling in monocytic cells: up-regulation of tumor necrosis factor receptor-associated factor mRNAs and activation of mitogen-activated protein kinase signaling pathways. *Int Immunol*. 2001 Mar;13(3):273-83. PubMed PMID: 11222496.
 4. Wu W, Alexis NE, Chen X, Bromberg PA, Peden DB. Involvement of mitogen-activated protein kinases and NFkappaB in LPS-induced CD40 expression on human monocytic cells. *Toxicol Appl Pharmacol*. 2008 Apr 15;228(2):135-43. doi: 10.1016/j.taap.2007.12.002. Epub 2007 Dec 14. PubMed PMID: 18187173.
- Pictures:** Surface staining of human peripheral blood cells with anti-human CD40 (HI40a) FITC. Cells in the lymphocyte gate were used for analysis.

