

Anti-CD40 antibody, mouse monoclonal (5C3) (biotin)

Product code	72-031
Size	50 µg
Storage	-20°C
Concentration	1.0 mg/ml
Buffer	PBS- with 50% glycerol
Purity	Purified IgG fraction with protein A from hybridoma cell culture medium.
Immunogen	Purified recombinant extracellular domain of CD40
Isotype	Mouse IgG1κ
Reactivity	Human
Special notes	Conjugation: Biotin
Application	<ol style="list-style-type: none"> 1. Flow-Cytometry 2. Immuno-fluorescent staining 3. Immunohistochemistry Frozen-section
Background	<p>CD40 is a 45-50-kDa glycoprotein belonging to the tumor necrosis factor (TNF) receptor superfamily. CD40 is specifically expressed on the surface of B cells and specialized antigen-presenting cells such as dendritic cells and macrophages. CD40 interacts with the CD40 ligand (CD154) which is found primarily on T cells, playing a role in both humoral and cell-mediated immune responses. Activation of CD40 on B cells by CD40 ligand causes B cell proliferation, differentiation, immunoglobulin isotype switching, germinal center formation, and stimulation of the humoral memory response.</p> <p>This antibody reacts with a 45-48 kDa type I integral membrane glycoprotein present on peripheral blood and tonsillar B cells, but not expressed on terminally differentiated B cells.</p> <p>The antibody against human CD40 was produced from hybridoma (5C3) cultured in serum-free medium and purified under mild conditions by proprietary chromatography processes.</p>
Data Link	Swiss-Prot P25942
Please note: All products are FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES. NOT FOR MILITARY USE.	

Data Images: 72-031 Anti-CD40 antibody, mouse monoclonal (5C3) (biotin)

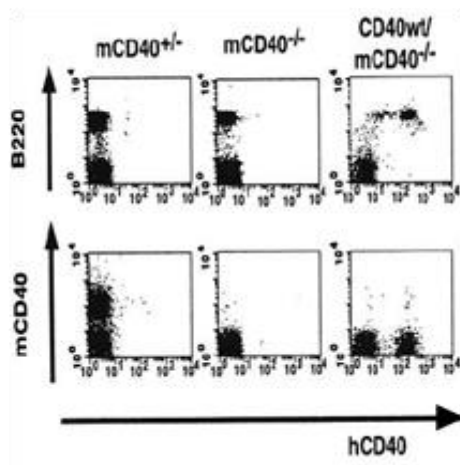


Fig.1 Flow-cytometry analysis of human CD40 expression in transgenic mouse.

Splenocytes from m (mouse) CD40^{+/+}, mCD40^{-/-} and hCD40 wild type/mCD40^{-/-} mice were stained with monoclonal antibodies against mCD40, B220 and hCD40 (5C3) and analyzed by flow cytometry. hCD40 molecules were expressed specifically on B220⁺ B cells.

References: This antibody has been used in following publications

1. Inui S *et al* (1990) "Identification of the intracytoplasmic region essential for signal transduction through a B cell activation molecule, CD40." *Eur J Immunol* **20**: 1747-1753 PMID: [16986312](#). **FC**
2. Yasui T *et al* (2002) "Dissection of B cell differentiation during primary immune responses in mice with altered CD40 signals." *Int Immunol* **14**: 319-329 PMID: [11867568](#) **FC**
3. Ishida I *et al* (2003) "Involvement of CD100, a lymphocyte semaphoring, in the activation of the human immune system via CD72: implications for the regulation of immune and inflammatory responses." *Int Immunol.* **15**: 1027-1034 PMID: [12882840](#). **FC**

Related products

72-030 Anti-CD40 antibody, mouse monoclonal (5C3)

72-032 Anti-CD40 antibody, mouse monoclonal (5C3) (FITC)