

Datasheet for ABIN1112132
anti-CD40 antibody (FITC)



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Overview

Quantity:	100 tests
Target:	CD40
Reactivity:	Human
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This CD40 antibody is conjugated to FITC
Application:	Flow Cytometry (FACS), Immunofluorescence (IF)

Product Details

Clone:	HI40a
Isotype:	IgG1
Characteristics:	Mouse Monoclonal Anti-Human CD40.

Target Details

Target:	CD40
Alternative Name:	CD40 (CD40 Products)
Background:	CD40 is a member of the tumour necrosis factor (TNF) receptor super family, which includes the low affinity nerve growth factor (NGF) receptor and CD95/Fas. CD40 is the receptor for CD40 ligand. CD40 ligand (CD40L, CD154, gp39, and TRAM) belongs to the TNF gene family and is expressed more widely than CD40 predominantly on activated CD4+ T cells. Following interaction with CD40 ligand, CD40 mediates a number of major immunoregulatory functions,

Target Details

central to the control of thymus dependent humoral immunity and may be critical in the development of cell mediated immune responses. Other biological actions include B cell homotypic adhesion, proliferation, immunoglobulin isotype switch, and secretion. Activation of CD40 has also been shown to inhibit the growth of certain B cell lymphomas and to induce the death of transformed cells of mesenchymal or epithelial origin. Disease relevance of CD40: CD40 antigen is also present on Hodgkin's and Reed-Sternberg cells, follicular dendritic cells, some macrophages, basal epithelial cells and endothelial cells.

Pathways: [NF-kappaB Signaling](#), [Cellular Response to Molecule of Bacterial Origin](#), [M Phase](#), [Regulation of Leukocyte Mediated Immunity](#), [Positive Regulation of Immune Effector Process](#), [Production of Molecular Mediator of Immune Response](#), [Cancer Immune Checkpoints](#)

Application Details

Application Notes: It is recommended for use in flow cytometry. This reagent is effective for direct immunofluorescence staining of human tissue for flow cytometric analysis using 20 µl/10⁶ cells.

Comment: Fluorescein isothiocyanate (Molecular Probes).

Sample Collection: 1. Transfer 100 µl of anticoagulated (EDTA) blood to a 12 x 75 mm polystyrene test tube (10⁶ cells). 2. Add 20 µl of CD40 FITC and mix gently with a vortex mixer. The 20 µl is a guideline only, the optimal volume should be determined by the individual laboratory. 3. The recommended negative control is a non-reactive FITC-conjugated antibody of the same isotype. 4. Incubate in the dark at room temperature at 4°C for 30 minutes or at room temperature (20-25 °C) for 15 minutes. 5. Add the quantity recommended of Lysing Solution to each sample and mix gently with a vortex mixer. Incubate for 10 minutes at room temperature in the dark. 6. Centrifuge at 1000 x g for 5 minutes. Gently aspirate the supernatant and discard it leaving approximately 50 µl of fluid. 7. Add 2 ml 0.01 mol/l PBS (It better that it containing 2% bovine serum albumin) and resuspend the cells by using a vortex mixer. 8. Centrifuge at 1000 x g for 5 minutes. Gently aspirate the supernatant and discard it leaving approximately 50 µl of fluid. 9. Resuspend pellet in an appropriate fluid for flow cytometry, e.g. 0.3 ml PBS. The PBS should contain 1% Para formaldehyde (fixative) if samples are not analysed the same day. 10. Analyse on a flow cytometer or store at 2-8 °C in the dark until analysis. Samples can be run up to 24 hours after lysis. Normal Blood Sample from a Human Donor

Restrictions: For Research Use only

Handling

Format:	Liquid
Buffer:	The conjugate is provided in liquid form in buffer containing 1% bovine serum albumin (BSA) and 0,09% Sodium azide, pH 7.2.
Preservative:	Sodium azide
Precaution of Use:	1. The device is not intended for clinical use including diagnosis, prognosis, and monitoring of a disease state, and it must not be used in conjunction with patient records or treatment. 2. This product contains Sodium azide (NaN ₃), a chemical highly toxic in pure form. At product concentrations, though not classified as hazardous, Sodium azide may react with lead and copper plumbing to form highly explosive build-ups of metal azides. Upon disposal, flush with large volumes of water to prevent metal azide build-up in plumbing. 3. As with any product derived from biological sources, proper handling procedures should be used.
Storage:	4 °C

Publications

Product cited in:	Fujiwara, Melenhorst, El Ouriaghli, Kajigaya, Grube, Sconocchia, Rezvani, Price, Hensel, Douek, Barrett: "In vitro induction of myeloid leukemia-specific CD4 and CD8 T cells by CD40 ligand-activated B cells gene modified to express primary granule proteins." in: Clinical cancer research : an official journal of the American Association for Cancer Research , Vol. 11, Issue 12, pp. 4495-503, (2005) (PubMed).
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Images

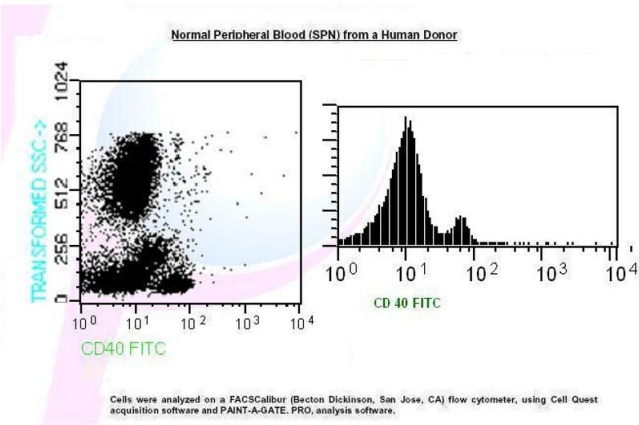


Image 1.