

**Antibody to CD40**
MOUSE MONOCLONAL

Catalog Number: AB-V06
Quantity: 100 micrograms
Format: PBS (0.14 M Sodium Chloride; 0.003 M Potassium Chloride; 0.002 M Potassium Phosphate; 0.01 M Sodium Phosphate; pH 7.4), no preservative.
Host: Mouse
Clone: 626
Immunogen: Human activated tonsillar B cells

Background: CD40 is a costimulatory receptor expressed on antigen-presenting cells, including B cells, and plays a critical role in their activation and functional maturation. B cell development requires multiple signals, including antigen presentation via MHC, cytokine exposure (such as IL-2, IL-4, and IL-5), and receptor-mediated costimulation. Interaction between CD40 and its ligand CD154 (CD40L), which is expressed on activated T helper cells, promotes B cell maturation and the acquisition of downstream effector functions.

Specificity & Preparation: Mouse IgG1 antibody generated against human activated tonsillar B cells.

Usage: Applications include flow cytometry, immunohistochemistry, and western blot. Working dilutions must be determined by end user.

Storage: Store antibody at -20°C for one year. Avoid repeated freezing and thawing. Gently spin down material 5-10 seconds in a microfuge before use.

Selected References:

1. Gruber MF, Bjorndahl JM, Nakamura S, Fu SM (1989) Anti-CD45 inhibition of human B cell proliferation depends on the nature of activation signals and the state of B cell activation. A study with anti-IgM and anti-CDw40 antibodies. *J Immunol* 142(12):4144-4152. doi: 10.4049/jimmunol.142.12.4144 PMID: 2470814

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