**Monoclonal Antibody to CD40**

**Fluorescein (FITC) conjugated (100 tests)**

**Clone:** HI40a  
**Isotype:** Mouse IgG1  
**Specificity:** The antibody HI40a 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.

**Regulatory Status:** RUO  
**Immunogen:** Human CD40a  
**Species Reactivity:** Human  
**Preparation:** The purified antibody is conjugated with Fluorescein isothiocyanate (FITC) under optimum conditions. The reagent is free of unconjugated FITC and adjusted for direct use. No reconstitution is necessary.

**Storage Buffer:** The reagent is provided in stabilizing phosphate buffered saline (PBS) solution containing 15mM sodium azide.

**Storage / Stability:** Store in the dark at 2-8°C. Do not freeze. Avoid prolonged exposure to light. Do not use after expiration date stamped on vial label.

**Usage:** The reagent is designed for Flow Cytometry analysis of human blood cells using 20 µl reagent / 100 µl of whole blood or 10^6 cells in a suspension. The content of a vial (2 ml) is sufficient for 100 tests.

**Expiration:** See vial label  
**Lot Number:** See vial label  
**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.
References:


