

Anti-CD40 [A54 scFv] Standard Size Ab00743-2.3

This antibody was created using our proprietary Fc Silent™ engineered Fc domain containing key point mutations that abrogate binding to Fc gamma receptors.

This full-length, chimeric mouse antibody was made using the variable domain sequences of the original Human scFv format, for improved compatibility with existing reagents, assays and techniques.

Isotype and Format: Mouse IgG2a, [Fc Silent™](#), Lambda

Clone Number: A54 scFv

Alternative Name(s) of Target: TNFRSF5; A54; Tumor necrosis factor receptor superfamily member 5; B cell surface antigen CD40; B-cell cell surface antigen CD40; B-cell surface antigen CD40; B cell surface antigen CD40; antigen CD40; CD40 antigen; Bp50; Bp-50; CD40L receptor CDw40

UniProt Accession Number of Target Protein: P25942

Published Application(s): Activate, Block, ELISA

Published Species Reactivity: Human

Immunogen: A54 human anti-CD40 scFv was selected from the n-CoDeR phage display library after 4 rounds of selections using biotinylated CD40-Fcγ fusion protein as bait and subsequent capture of bound phages on streptavidin-coated magnetic beads.

Specificity: A54 binds specifically to the D1 domain of CD40 (and can only bind to the intact, i.e., non-truncated version of CD40, and when an AD2 peptide tag has not been added) and can recognise CD40 on a B cell line (BJAB). The scFv version of this antibody binds CD40 (immobilized by amine coupling) with a KD of 40nM. CD40 is a glycoprotein of the TNFR superfamily and is expressed on all mature B cells, dendritic cells, activated monocytes, some endothelial cells, and some epithelium including the thymus. CD40 binds to the membrane protein CD154 of the TNF superfamily, and this interaction is required for the secondary immune responses and germinal centre formation.

Application Notes: A54 is able to block the CD40-CD154 interaction by around 60-80% and can also induce CD40 signalling in human B cells when at 'unusually high concentrations' (The CD40 receptor - target, tool and technology, Ellmark, 2002). This scFv can also be used for ELISA studies (PMID: 12153507)

Antibody First Published in: Ellmark et al. Modulation of the CD40-CD40 ligand interaction using human anti-CD40 single-chain antibody fragments obtained from the n-CoDeR phage display library Immunology . 2002 Aug;106(4):456-63. doi: 10.1046/j.1365-2567.2002.01473.x [PMID:12153507](#)

Note on publication: The original publication describes the selection and characterization of a novel set

of fully human anti-CD40 single-chain antibody fragments obtained from a phage display library.

Product Form

Size: 200 µg Purified antibody.

Purification: Protein A affinity purified

Supplied In: PBS with 0.02% Proclin 300.

Storage Recommendation: Store at 4°C for up to 3 months. For longer storage, aliquot and store at -20°C.

Concentration: 1 mg/ml.

Important note – This product is for research use only. It is not intended for use in therapeutic or diagnostic procedures for humans or animals.