

Anti-MRP1 [A5 scFv] Bulk Size Ab00751-1.1-BT

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

Isotype and Format: Mouse IgG1, Kappa

Clone Number: A5 scFv

Alternative Name(s) of Target: LTC4 transporter; Multidrug resistance-associated protein 1; MRP-1; MRPI; MRP-I; ATP-binding cassette sub-family C member 1; Leukotriene C(4) transporter; LTC4 transporter

UniProt Accession Number of Target Protein: P33527

Published Application(s): ELISA, FC

Published Species Reactivity: Human

Immunogen: A5 scFv was isolated from a phage display. The source of the antibody genes came from the spleens of mice which had been immunized with f88 filamentous bacteriophages displaying a peptide derived from the extracellular N-terminus (aa 1-18) of human MRP1. The scFv A5 was expressed in BL21 E. coli cells and purified from the periplasmic fraction by metal-ion affinity chromatography.

Specificity: A5 scFv binds specifically to the extracellular N-terminus of MRP1, with no cross-reactivity with other MRPs or BCRP. FC analysis showed that A5 reacts strongly with viable ovarian carcinoma 2008/MRP1 and small cell lung carcinoma GLC4/ADR cells that overexpress MRP1. MRP1 is a member of the ABC superfamily of transporter proteins and confers resistance to various toxic compounds and are involved in multi-drug resistance in chemotherapy. This protein mediates the export of organic anions and drugs from the cytoplasm.

Application Notes: standard and saturation ELISA. The avidity of the scFv was increased for FC studies through tetramerization of A5 by adding a BirA tag to the C terminus for site-specific biotinylation and tetramerized using PE-labelled streptavidin.

Antibody First Published in: Binyamin et al. Targeting an extracellular epitope of the human multidrug resistance protein 1 (MRP1) in malignant cells with a novel recombinant single chain Fv antibody. Int J Cancer. 2004 Jul 20;110(6):882-90. [PMID:15170671](#)

Note on publication: Describes the generation and characterization of A5 scFv, which binds specifically to MRP1.

Product Form

Size:

1 mg Purified antibody in bulk size.

Purification: Protein A affinity purified

Supplied In: PBS only.

Storage Recommendation: Store at 4°C for up to 3 months. Note, this antibody is provided without added preservatives, it is therefore recommended this antibody be handled under sterile conditions. 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.