

## 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.