LRP (1014): sc-23916

**BACKGROUND**

Tumor cells that are insensitive to anticancer drugs often have a multidrug-resistant (MDR) phenotype. Proteins associated with this phenomenon are transport-associated proteins such as P-glycoprotein, multidrug resistance protein 1, lung resistance-related protein (LRP), and breast cancer resistance protein (BCRP). The LRP protein, which is identified as the major vault protein (MVP), is overexpressed in various multidrug-resistant cancer cell lines and clinical samples. The promoter of LRP is TATA-less; contains an inverted CCAAT-box and a Sp1 site located near a p53 binding motif. LRP has two alternative splice variants, which differ from each other within the 5’-leader. The long-LRP isoform is ubiquitously expressed and represents an almost constant portion of the total LRP mRNA in many different normal tissues. LRP is the major component of the multimeric ribonucleoprotein complexes, with several copies of an untranslated RNA, which has been shown to transport along cytoskeletal-based cellular tracks. In conclusion, LRP protein mediates drug resistance, perhaps via a transport process.

**CHROMOSOMAL INFORMATION**

Genetic locus: MVP (human) mapping to 16p11.2; Mvp (mouse) mapping to 7 F3.

**SOURCE**

LRP (1014) is a mouse monoclonal antibody raised against LRP purified from MCF7 cells.

**PRODUCT**

Each vial contains 200 µg IgG1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

LRP (1014) is available conjugated to agarose (sc-23916 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-23916 HRP), 200 µg/ml, for WB, IHC, and ELISA; to either phycoerythrin (sc-23916 PE), fluorescein (sc-23916 FITC), Alexa Fluor® 488 (sc-23916 AF488), Alexa Fluor® 546 (sc-23916 AF546), Alexa Fluor® 594 (sc-23916 AF594) or Alexa Fluor® 647 (sc-23916 AF647), 200 µg/ml, for WB (RGB), IF, IHC, and FCM; and to either Alexa Fluor® 680 (sc-23916 AF680) or Alexa Fluor® 750 (sc-23916 AF750), 200 µg/ml, for Near-Infrared (NIR) WB, IF, and FCM.

**APPLICATIONS**

LRP (1014) is recommended for detection of LRP of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation (1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).


Molecular Weight of LRP: 110 kDa.

Positive Controls: Caki-1 cell lysate: sc-2224.

**STORAGE**

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

**DATA**

![LRP (1014): sc-23916. Western blot analysis of LRP expression in U-87 MG (A), Caki-1 (B), T98G (C) and A549 (D) whole cell lysates. Detection reagent used: m-IgG HRP: sc-916102.](image1)

![LRP (1014): sc-23916. Immunoperoxidase staining of formalin fixed, paraffin-embedded human duodenum tissue showing cytoplasmatic staining of glandular cells (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human urinary bladder tissue showing cytoplasmatic staining of urothelial cells (B).](image2)

**SELECT PRODUCT CITATIONS**


**RESEARCH USE**

For research use only, not for use in diagnostic procedures.

**PROTOCOLS**

See our web site at www.scbt.com for detailed protocols and support products.

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