SANTA CRUZ BIOTECHNOLOGY, INC.

MRP7 (H-300): sc-67241

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The Power to Question

BACKGROUND

The MRP family is represented by nine similar ABC transporters that have the ability to transport structurally diverse lipophilic anions and operate as chemical efflux pumps. MRP7 (multidrug resistance-associated protein 7, ATP-binding cassette sub-family C member 10) is a multi-pass membrane protein that belongs to the ABC transporter family (conjugate transporter subfamily). MRP7 is involved with the ATP-dependent transport of 17b-estradiol-D-17-b-glucuronide (E217bG). MRP7 is also probably involved in cellular detoxification through its lipophilic anion extrusion capabilities. MRP7 contains two ABC transmembrane type 1 domains and two ABC transporter domains. MRP7 likely has three isoforms. Isoform 2 is the most widely expressed, while isoform 1 is predominately expressed in the spleen.

REFERENCES

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3. Hopper-Borge, E., et al. 2004. Analysis of the drug resistance profile of multidrug resistance protein 7 (ABCC10): resistance to docetaxel. Cancer Res. 64: 4927-4930.
4. Dabrowska, M., et al. 2004. Regulation of transcription of the human MRP7 gene. Characteristics of the basal promoter and identification of tumor-derived transcripts encoding additional 5' end heterogeneity. Gene 341: 129-139.
5. Weaver, D.A., et al. 2005. ABCC5, ERCC2, XPA and XRCC1 transcript abundance levels correlate with cisplatin chemoresistance in non-small cell lung cancer cell lines. Mol. Cancer 4: 18.
6. Maher, J.M., et al. 2005. Tissue distribution and hepatic and renal ontogeny of the multidrug resistance-associated protein (MRP) family in mice. Drug Metab. Dispos. 33: 947-955.
7. Wooden, S.L., et al. 2005. Cutting edge: HLA-E binds a peptide derived from the ATP-binding cassette transporter multidrug resistance-associated protein 7 and inhibits NK cell-mediated lysis. J. Immunol. 175: 1383-1387.
8. Naramoto, H., et al. 2007. Multidrug resistance-associated protein 7 expression is involved in cross-resistance to docetaxel in salivary gland adenocarcinoma cell lines. Int. J. Oncol. 30: 393-401.
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CHROMOSOMAL LOCATION

Genetic locus: ABCC10 (human) mapping to 6p21.1; Abcc10 (mouse) mapping to 17 C.

SOURCE

MRP7 (H-300) is a rabbit polyclonal antibody raised against amino acids 331-630 mapping within an internal region of MRP7 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

MRP7 (H-300) is recommended for detection of MRP7 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 solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

MRP7 (H-300) is also recommended for detection of MRP7 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for MRP7 siRNA (h): sc-62641, MRP7 siRNA (m): sc-62642, MRP7 shRNA Plasmid (h): sc-62641-SH, MRP7 shRNA Plasmid (m): sc-62642-SH, MRP7 shRNA (h) Lentiviral Particles: sc-62641-V and MRP7 shRNA (m) Lentiviral Particles: sc-62642-V.

Molecular Weight of MRP7: 166 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

STORAGE

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

RESEARCH USE

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

PROTOCOLS

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